REPORT ON CITY OF SPOKANE DRINKING WATER FOR 2015

Reported by
Doug Greenlund, Environmental Analyst
1 April 2016

Note: *This report provides a summary of the drinking water monitoring conducted during 2015 as well as a comprehensive overview of past monitoring.*

The City of Spokane's water is of very high quality. Many different tests are conducted at varying intervals to confirm that the City's drinking water meets Washington State and federal EPA drinking water quality standards. The City's drinking water supply, to date, has consistently met all state and federal standards. This report is meant to provide consumers and other interested parties with insight into what analytical tests have been conducted and, in some cases, substances that have been detected. The state and federal Maximum Contaminant Level (MCL) information is provided as a risk benchmark.

This report also summarizes the amount of water the City used in 2015, and documents some indicators to show the progress being made to meet conservation goals adopted by the City in its Water Stewardship Strategic Plan.

The final pages (appendices) of this report summarize the most recent analytical testing. Appendix II has a comprehensive list of substances tested in City water. Appendix III summarizes the testing completed during 2011 to 2015. Appendix IV through XI summarizes the analytical results for recent and historical testing. The following narrative and attachments summarize and explain recent results in more detail. Appendix XIII and the last two pages of this narrative (General Information) contain information relevant to the annual Consumer Confidence Report. As such, the information may be redundant, relative to the main text of this report.

All of the City of Spokane's drinking water comes from the Spokane Valley-Rathdrum Prairie Aquifer - designated a sole source aquifer in 1978. The Spokane Valley-Rathdrum Prairie Aquifer slowly flows through two different states and a number of different counties and is the source water for a large number of water purveyors, including the City of Spokane. This water and any contaminants freely move across political boundaries. Many groups and/or private individuals may claim this water to be used for diverse purposes. Some of these competing interests include (but are not limited to) drinking water rights, irrigation, fisheries, hydroelectric power, and industrial processes. The Spokane Aquifer (that portion of the larger aquifer lying within Washington State) and the Spokane River exchange water. While the aquifer contains a large volume of water, many factors play into the volume of water in the Spokane River, complicating the management of these resources. Some of these factors include pumping for irrigation and potable water, hydroelectric dam operations, and the variations of weather and precipitation. The rates and locations of exchange between the aquifer and the Spokane River have been re-examined as part of the Bi-State Aquifer Study. In January 2008, the states of Washington and Idaho

English:
This report contains important information about the drinking water supplied by the City of Spokane. Translate it, or speak with someone who understands it well.

Spanish:
Este reporte contiene información importante acerca del agua potable suministrada por la Ciudad de Spokane. Tradúzcalo, o hable co
n alguien que lo entiende bien.
(Para ver información adicional, visite al; http://espanol.epa.gov/espanol/agua

Russian:
В этом отчете содержится важная информация относительно питьевой воды, поставляемой службой города Спокэн. Переведите этот отчет или поговорите с тем, кто его хорошо понимает.

Vietnamese:
Bản phúc trình này chứa đựng những thông tin quan trọng về nước uống được cung cấp bởi City of Spokane. Hãy phiên dịch, hay hỏi thăm người nào hiểu rõ về tài liệu này.

announced signing a Memorandum of Agreement (www.idwr.idaho.gov/WaterInformation/projects/svrp/PDFs/svrp_MOA_10-26-07.pdf) concerning the "…*continued coordination involving the maintenance and improvement of the technical tools developed in a bi-state water study.*" Discussions to agree on how to utilize these technical tools to manage this valuable resource will continue. The results of these studies and agreements will give the City information it needs to continue to supply high-quality water to the citizens of Spokane.

Due to the porous nature of the ground surface and the number of potential contaminant sources, the possibility of contaminating the aquifer exists if good housekeeping measures are not followed for all activity over and adjacent to the aquifer. The physical and economic health of our area depends on the quality of our drinking water. In order to safeguard water quality, the City continues its efforts to make available to the community information about, and appropriate disposal mechanisms for, dangerous wastes that are generated in the Aquifer Sensitive Area. The City, in cooperation with other local governments and the Spokane Aquifer Joint Board, continues to work toward strengthening regulations for the storage and use of critical materials to safeguard the local water supply.

For additional information regarding the City of Spokane's drinking water or related issues:

City of Spokane Water Department	(509) 625-7800	www.spokanewater.org/
City of Spokane-Environmental Programs	(509) 625-6570	www.greenspokane.org/
Spokane County - Water Resources	(509) 477-3604	www.spokanecounty.org/WQMP/
Spokane Regional Health District – Environmental Health Div.	(509) 324-1560	www.srhd.org/services/environment.asp
Washington State Department of Health - Eastern Regional Office (Drinking Water)	(509) 329-2100	www.doh.wa.gov/YouandYourFamily/HealthyHome/DrinkingWater
Washington State Department of Ecology – Eastern Regional Office	(509) 329-3400	www.ecy.wa.gov/
U.S. EPA Safe Drinking Water Hotline	1-800-426-4791	www.epa.gov/your-drinking-water

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APPENDICES

To obtain free software to read some of these digital files:

- Adobe Acrobat files: www.adobe.com/products/acrobat/readstep2.html
- Microsoft Word files: www.microsoft.com/downloads/details.aspx?FamilyID=3657ce88-7cfa-457a-9aec-f4f827f20cac&displaylang=en

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QUANTITY - Water for the Future

As a result of increasing recognition of the limits of our groundwater resources, the state has encouraged local interests and authorities to come together to manage this resource. The City of Spokane has taken an active role in area-wide partnerships to safeguard the quality and quantity of our water supply. The City of Spokane and all its water customers are challenged to use water resources wisely and responsibly. The City of Spokane Water Stewardship Program Strategic Plan was established by resolution of the City Council on May 1, 2006 (Resolution 06-49).

Changes in federal building standards have resulted in water savings nationwide. The City's Building and Development Services enforces these standards. The City of Spokane Water Department has taken additional steps to conserve water through education programs, metering water use, reducing the loss of water resulting from leaking pipes, and implementing a conservation-oriented rate structure. The Water Use Efficiency Rule (WAC 246-290-810) requires that municipal water suppliers adopt a plan to make more efficient use of their water. Two of the quantifiable elements, conservation goals and distribution system leakage, are discussed in this section.

GOALS

In April 2014, the City of Spokane updated the Water Use Efficiency Goals. These new goals were adopted on April 21 through Resolution 2014-0046. There are four new goals based on metered consumption. Of the four goals, three of them deal with reduction in outdoor water use for the largest sectors: commercial/industrial, government, and residential. Residential includes single family residences. The government sector includes all levels of government served by the Water Department as well as parks, public schools, and public post-secondary education facilities. The commercial/industrial sector focuses only on identified outdoor irrigation uses. The fourth goal deals with indoor water use for residential customers. The updated goals differ from the City's previous goals. They are based on measured use, not measured pumping, associated with a specific customer segment and primarily cover the outdoor summertime use. The goals, as adopted, are stated below:

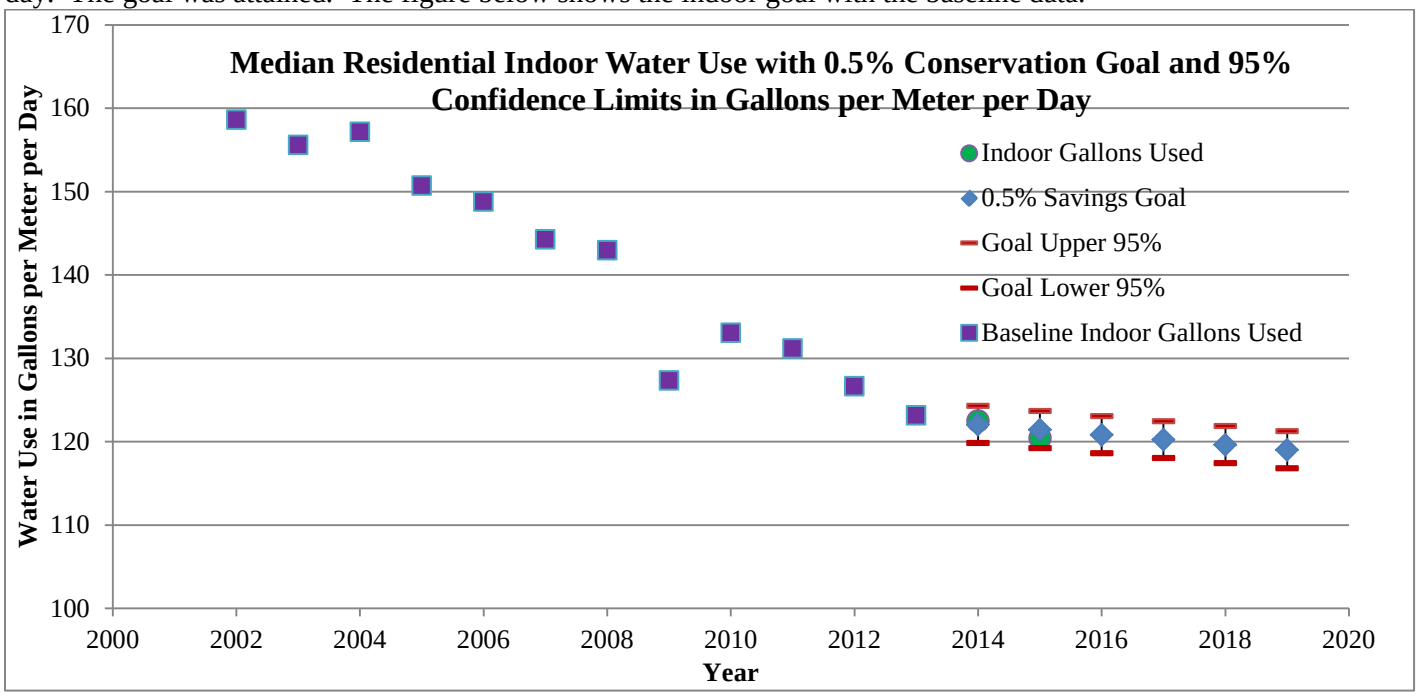
1. Continue the reduction of indoor residential use by one half percent (0.5%) on average for residential connections annually, over the next six (6) years.
2. Reduce outdoor residential use by two percent (2%) on average for residential connections annually, over the next six (6) years.
3. Reduce metered outdoor irrigation commercial/industrial use by two percent (2%) for commercial/industrial connections annually, over the next six (6) years.
4. Reduce outdoor metered government use by two percent (2%) for governmental connections annually, over the next six (6) years.

Three of the four goals were attained in 2015. The residential outdoor goal was above the 95% confidence interval and therefore very likely not met.

All of the conservation goals are based on a reduction in use from the baseline period of 2002 to 2013. The indoor use is for the period of December 15 to February 14. The outdoor use is the period of July 15 to September 14. The outdoor use is calculated by subtracting the preceding indoor use from the summertime use. The outdoor use is further corrected for the pan evaporation as measured at the Spokane National Weather Service office. The results presented are comparing pan evaporation corrected baseline goals with pan evaporation corrected results.

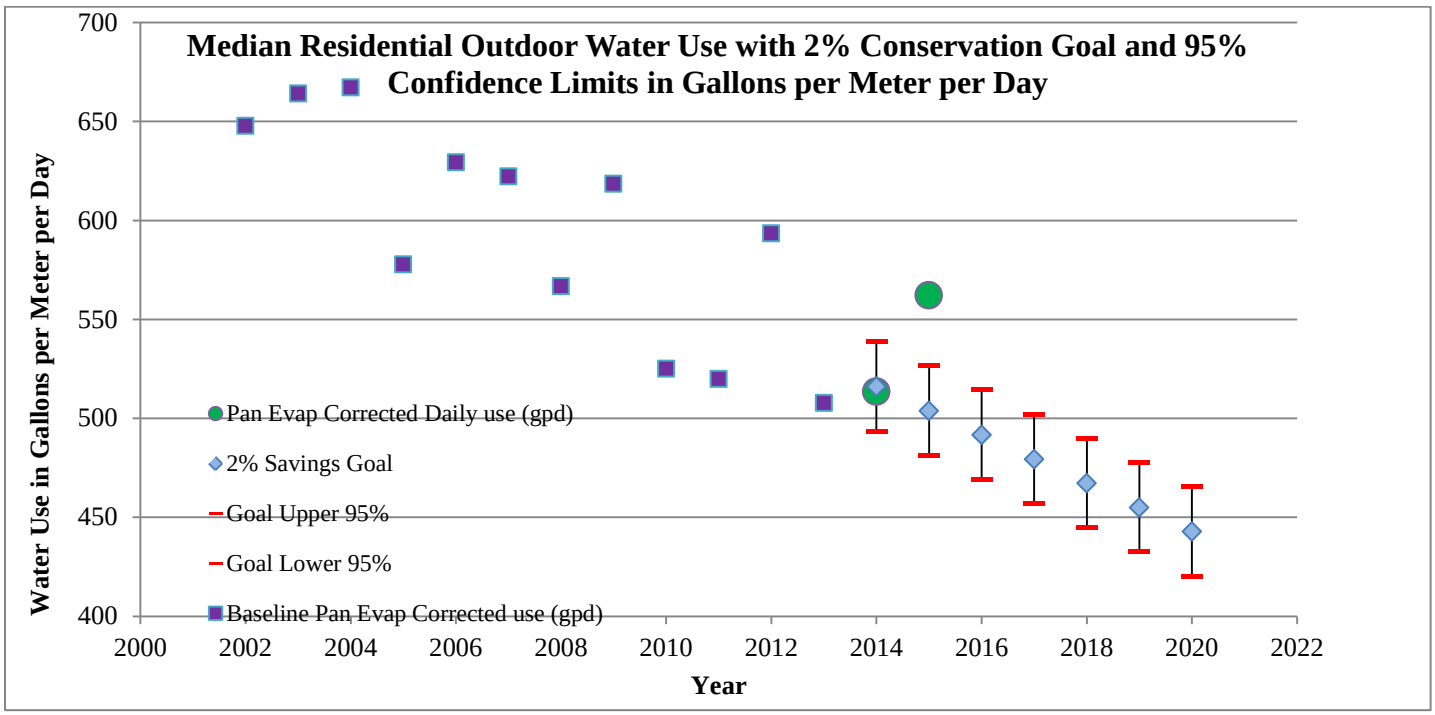
Indoor Residential

The indoor residential goal for 2015 was 121 gallons per meter per day. The measured use was 120 gallons per meter per day. The goal was attained. The figure below shows the indoor goal with the baseline data.



Outdoor Residential

The outdoor residential goal for 2015 was 516 gallons per meter per day. The pan evaporation corrected measured results were 562 gallons per meter per day. This goal was not attained. The figure below is for the residential outdoor use with the baseline data and the two percent conservation goal.



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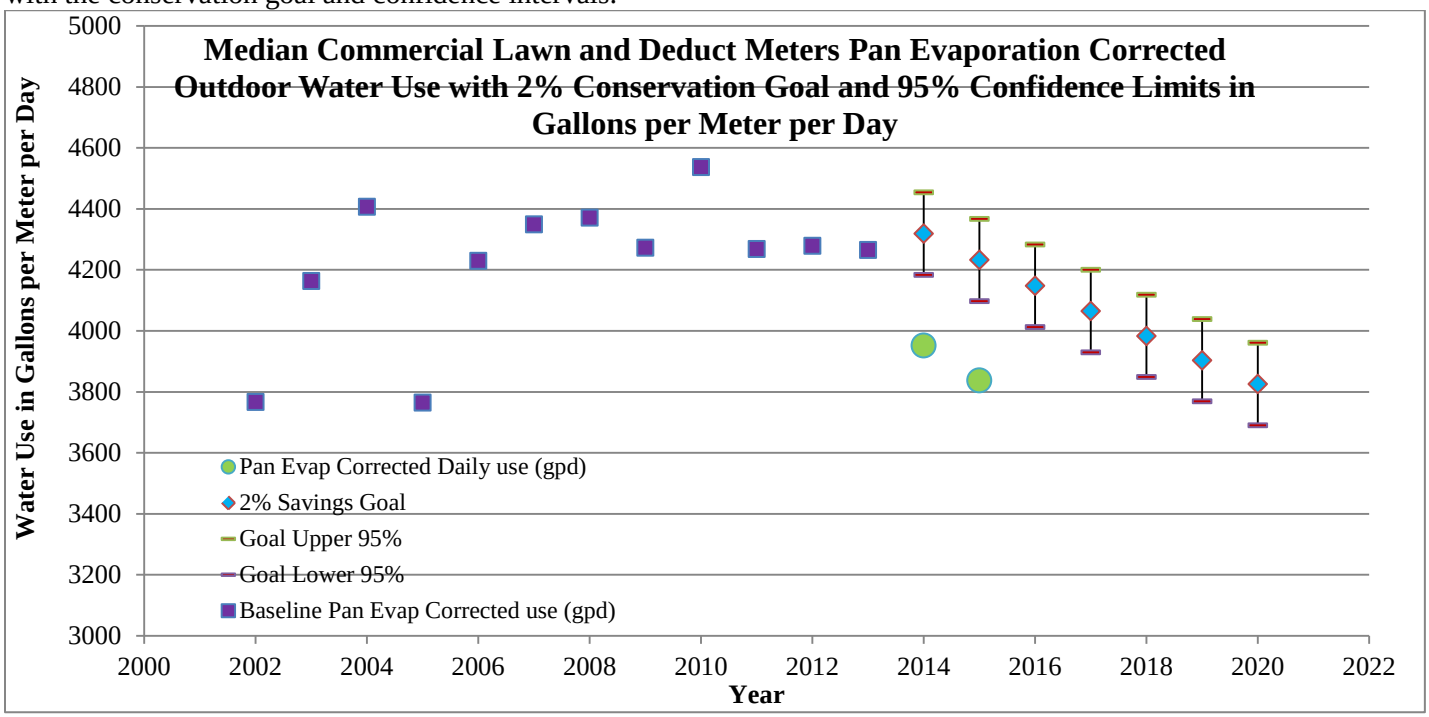
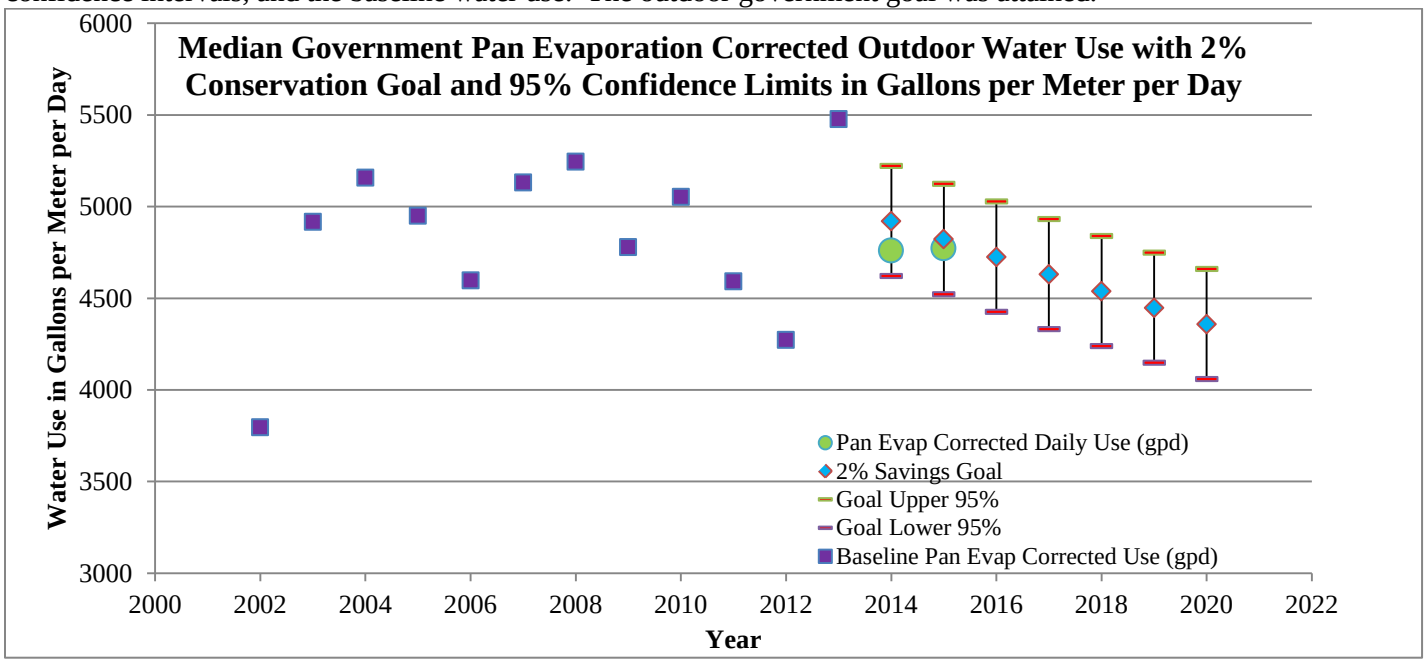
Outdoor Commercial/Industrial

The conservation goal for the commercial/industrial sector was 4,318 gallons per meter per day. The measured result was 3,837 gallons per meter per day. The goal was attained. The figure below shows the baseline commercial/industrial data with the conservation goal and confidence intervals.



Outdoor Government

The 2015 government sector outdoor conservation goal was 4,822 gallons per meter per day. The pan evaporation corrected use was 4,772 gallons per meter per day. The figure below shows the 2% conservation goal with 95% confidence intervals, and the baseline water use. The outdoor government goal was attained.



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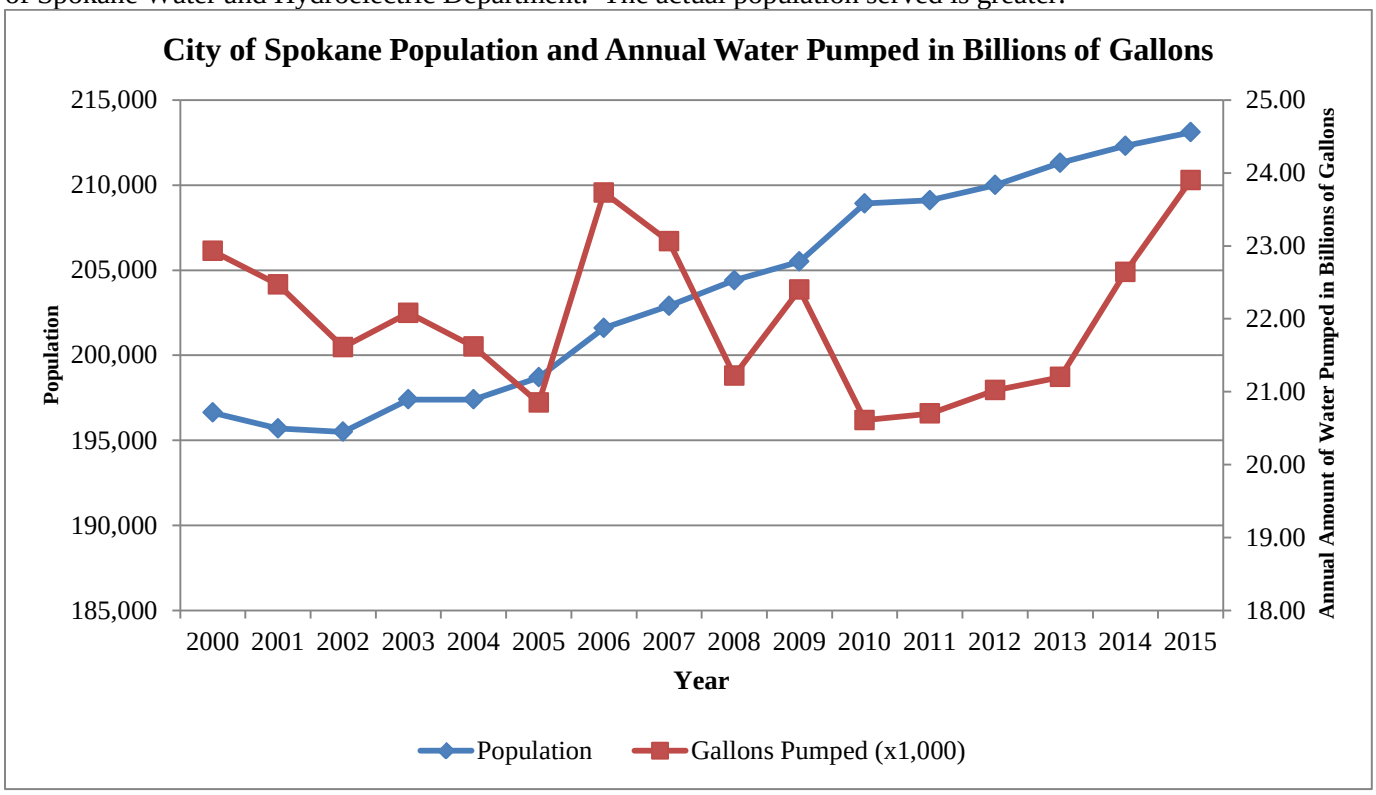
June 2015 was the hottest on record in Spokane and one of the driest. This weather resulted in increased outdoor irrigation. The outdoor residential water use includes this period. Residential meters are usually read on a two-month cycle so meters read between July 15th and September 14th would capture use during this unusually hot and dry June.

An indicator of population would be the number of single-family residences served. The following table provides the number of single-family residences over the last 10 years. Please note that the number of residences is typically lower in the winter because some local residents go south for the winter, and during that time, such residences are not counted as "connections."

Single Family Residences

	No. of service locations (Jan. & Feb.)	***No. of service locations (Aug. & Sept.)***
2006	**59,231**	**60,883**
2007	**59,881**	**61,459**
2008	**60,435**	**61,581**
2009	**60,683**	**61,585**
2010	**60,608**	**61,810**
2011	**60,492**	**61,671**
2012	**60,478**	**61,822**
2013	**59,384**	**61,783**
2014	**61,043**	**62,042**
2015	**61,405**	**62,367**

The following graph shows the growth in the City of Spokane and the total amount of water annually pumped by the City of Spokane Water and Hydroelectric Department. The actual population served is greater.



The following table shows the annual total gallons delivered to our wholesale customers:

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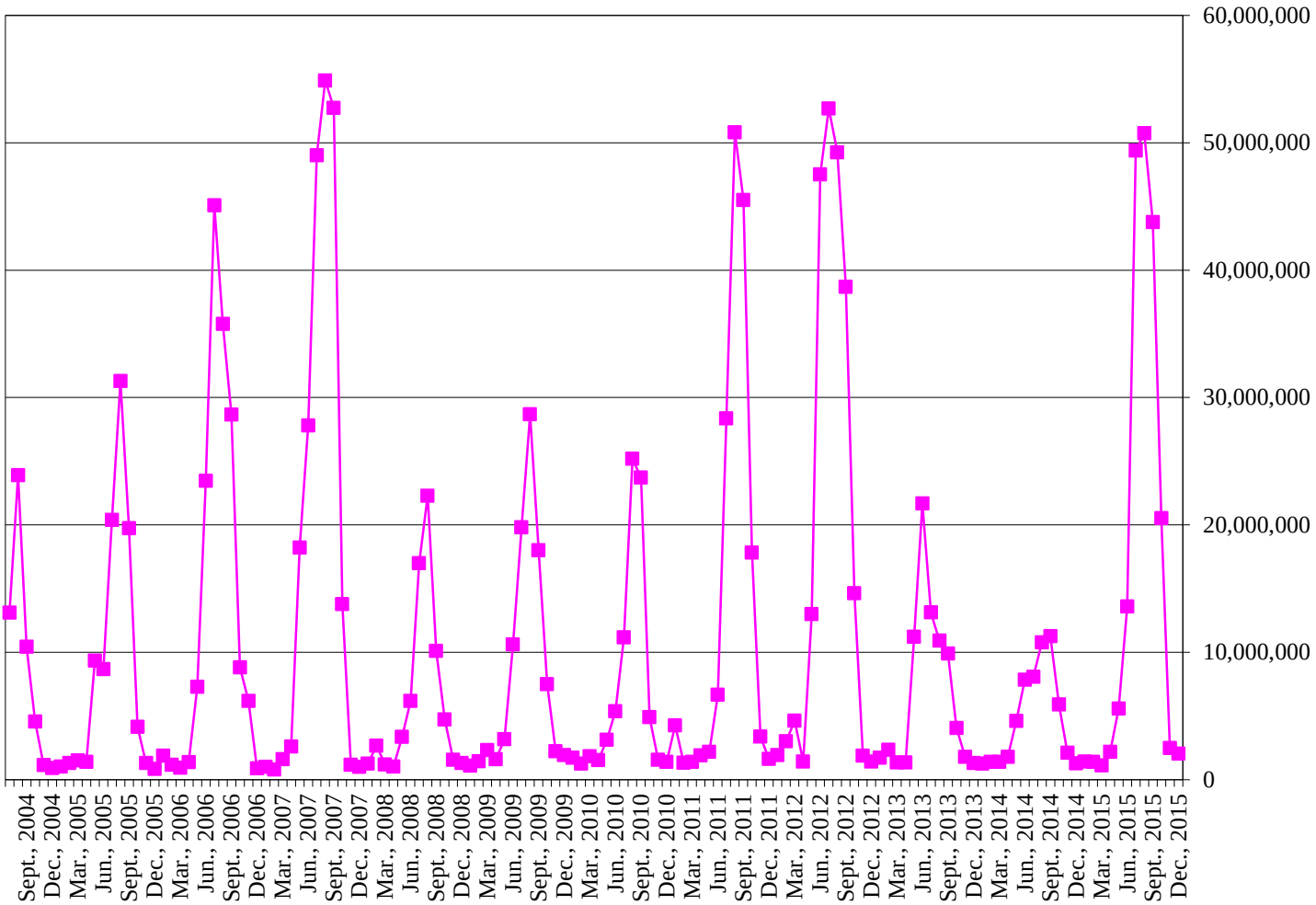
	Annual Total Intertie Demand, gal.	Percent Change From Previous Year
2005	161,179,040	
2006	190,312,144	18.1 %
2007	227,270,824	19.4 %
2008	75,063,296	- 67.0 %
2009	95,439,564	27.1 %
2010	108,846,716	14.0 %
2011	165,106,788	51.7%
2012	231,569,580	40.3%
2013	79,169,816	-65.8%
2014	56,198,736	-35.4%
2015	192,230,248	242.2%

The following graph displays the total gallons per month wholesaled to water purveyors outside the City's water service area:

Total Intertie Water Demand, Gallons per Month



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2015 Water Use Efficiency Program Summary

The City of Spokane continues to engage, educate, and assist water customers in developing water efficient practices. Water Stewardship outreach is year round and heavily concentrated in crucial summer months when water use more than triples and water efficiency goals are at their highest.
Our work for 2015 included:

- Offering free irrigation reviews to customers with a total of 36 homes evaluated.
- Presenting 10 grade school, hour long workshops about water conservation.
- Participating in 17 community events, distributing educational materials and facilitating activities on water wise practices.
- Partnering with our Parks Department to update and install two public parks with automatic irrigation systems to water during non-peak hours and SMART controllers which adjusts irrigation based on the weather.
- Presenting an environmental education workshop for educators
- Partnering with WSU Master Gardeners to host two "Water Wise" classes.
- Information sharing through social media outlets, the City's website, 6 utility bill inserts, and several media interviews.
- Providing over 400 indoor water saving kits, hose timers, and outdoor water saving kits to customers. 1,000 five-minute shower timers were distributed at in-school community events and by request at City Hall.
- Sponsorships of a Hoopfest Court and the Spokane Indians baseball team with associated advertising and awareness opportunities.

In November 2014, the City Council adopted a new wastewater bill discount for customers who use less water. Under the credit program, which began in January 2015, the lowest 20 percent of indoor water users receive credits totaling $60 a year. The lowest 20 percent of indoor water users is determined annually based on water use during the winter when most water use is for indoor purposes and ultimately reaches the City's Riverside Park Water Reclamation Facility. Credits for 2015 were based on 2014 winter water usage numbers. Although the credit is designed primarily to introduce equity in the City's wastewater rate system and lower operating costs for the City's wastewater utility, it also helps the City achieve its water use efficiency goals, especially the goal for lower residential indoor water use.

Outreach education and engagement with water customers is designed to increase awareness over time and encourage responsible use of our water resources. Statistical data and customer feedback will provide critical information on customer behavior and program effectiveness. For more information, visit: EPA-WaterSense Program (www.epa.gov/watersense/) H2OUSE-Watersaver Home (www.h2ouse.org/) and the City of Spokane Water Stewardship Program at www.waterstewardship.org/

Distribution System Loss (DSL)

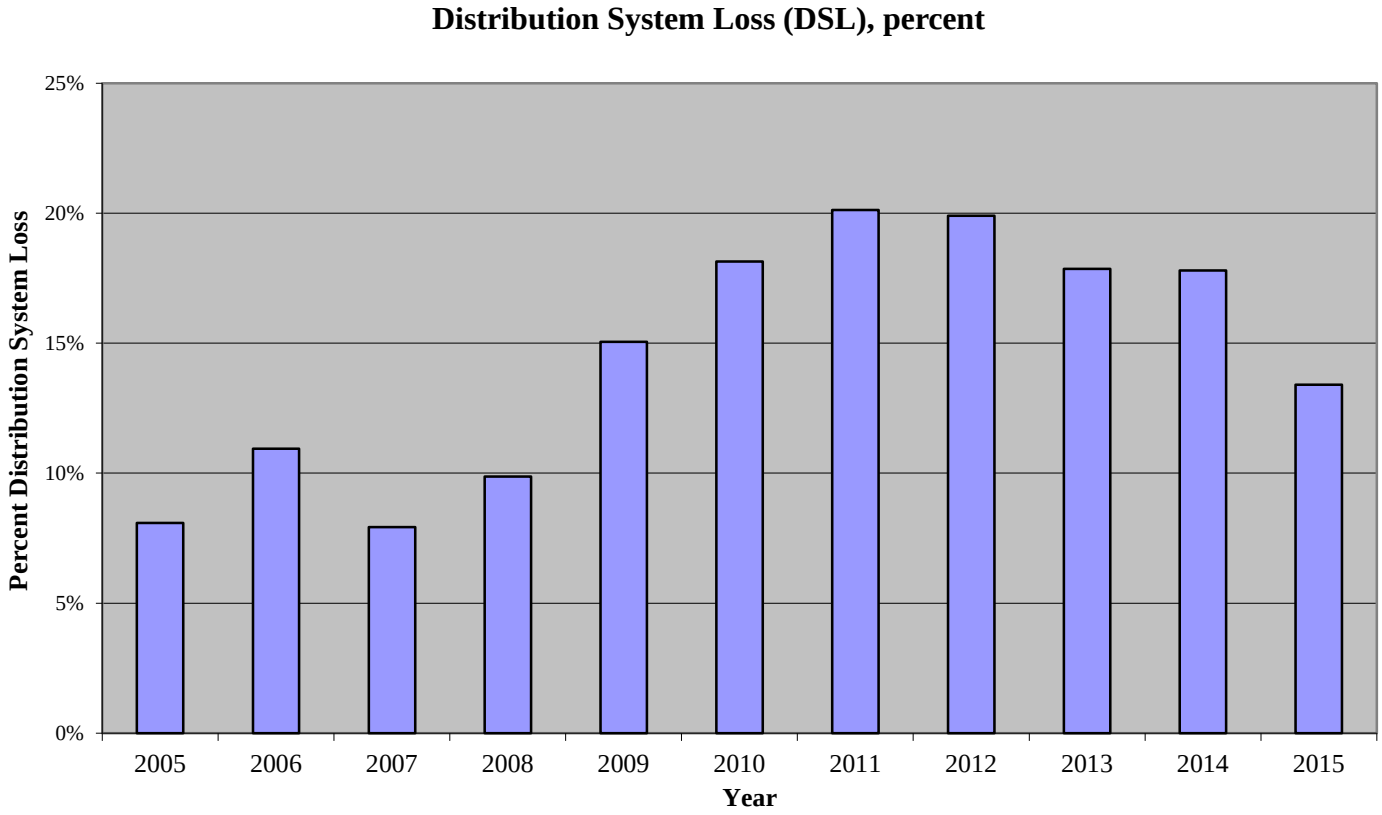
The Water Use Efficiency Rule requires the calculation of system water loss. Prior to this calculation, water systems are required to install service meters on all direct service connections[1] before January 22, 2017. The City of Spokane has had a long-standing policy of metering service connections. The calculations determine the volume of water not attributed to delivery to a customer and thus assumed to be lost to the ground. This loss is to be reported as a volume and as a percentage. In both cases, the DSL is determined as a running three-year average, and the water system must relate this DSL to the DSL standard promulgated by Washington Department of Health. The water use category of Non-Revenue Accounted-For Water is included in the Total Authorized Consumption (AC). This category, which is estimated (non-metered), includes such uses as street cleaning, cleaning water tanks/reservoirs, and water system maintenance (flushing). The water department revaluated the water system maintenance use in 2015.

[1] WAC 246-290-820(2)(a)

The method for DSL calculation and the data for the calculation are in Appendix I, pg. 32. The volume and percent DSL for the last three years are as follows:

	2013	***2014***	***2015***	***Average***
DSL, percent	17.9%	17.8%	13.4%	16.4%
DSL, volume (gallons x 1000)	3,787,117	4,032,455	3,206,643	3,675,402

The most direct means to comply with the Water Use Efficiency Rule standard for DSL is for the three-year running average to be less than 10%[2]. **The DSL for the City of Spokane Water System is 16.4%, which does not meet the standard.** The City will continue to encourage the responsible use of our water resources, continue to assess the accuracy of our reporting, and implement projects to reduce our system loss. In 2015, the City of Spokane Water Department continued to improve accounting of water from hydrant permits by using hydrant meters with select permit holders. Following is a graph depicting the annual DSL for 2005-2015:



[2] WAC 246-290-820(1)(b)(i)

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QUALITY Drinking Water
An Invaluable Community Resource

INORGANICS

The City typically has a Washington State Department of Ecology accredited laboratory run a full drinking water inorganics analysis once every three years on each of our source wells. In addition, nitrates are tested annually, as required. The most recent inorganic results from accredited laboratories are in Appendix IV. **All sources are in compliance with existing National Primary Drinking Water Regulations for Inorganic Maximum Contaminant Levels (MCL)**.

ARSENIC

The arsenic readings in 2015 at the Nevada, Parkwater, and Ray Street wells were 2.49 µg/L, 3.30 µg/L, and 4.40 µg/L respectively. The MCL for arsenic is 10 µg/L, or parts per billion (ppb). For City drinking water, 5.13 µg/L of arsenic in 2009 from Ray Street Well represents the highest result to date.

City drinking water currently meets EPA's drinking water standard for arsenic. However, it does contain low levels of arsenic. There is a small chance that some people who drink water containing low levels of arsenic for many years could develop circulatory disease, cancer, or other health problems. Most types of cancer and circulatory diseases are due to factors other than exposure to arsenic. EPA's standard balances the current understanding of arsenic's health effects against the cost of removing arsenic from drinking water.

Further information concerning health impact issues, regulatory requirements, and compliance costs for water utilities/water customers can be found at safewater.zendesk.com/hc/en-us/sections/202366558Arsenic and www.doh.wa.gov/Portals/1/Documents/Pubs/331-167.pdf.

CHROMIUM AND HEXAVALENT CHROMIUM

Chromium is a metallic element that occurs in the environment most commonly in three forms: trivalent, hexavalent and the metal form. The EPA established a drinking water standard of 0.1 mg/L, or 100 µg/L, for all forms of chromium in 1991. The City has monitored for this element since the rule was established and has had four detections for chromium. **Two of these were in July of 2015 with 1.25 µg/L at the Parkwater, and 1.31µg/L at the Ray Street well.** The other two were in July 1995 with 22 µg/L at the Central Well and 27 µg/L at the Grace Well. In addition to the detections from the routine sampling and testing, there were 13 more detections of chromium from the UCMR3 testing detailed in the table below.

The State of California has adopted an MCLG for hexavalent chromium of 0.02 µg/L and an MCL of 10 µg/L. The City's UCMR3 results are above the California MCLG but below the MCL. The EPA added hexavalent chromium to the Unregulated Contaminant Monitoring Rule (UCMR) Round 3 testing. (See page 24 for more information on UCMR 3) This was based on toxicity studies that indicate the potential for greater human health risks than when the original standards were established in 1991. EPA is now reviewing data from a 2008 long term animal study which suggested that hexavalent chromium may be a human carcinogen if ingested. Total chromium testing was included with the hexavalent chromium testing in order to determine how the current testing process may or may not adequately detect hexavalent chromium. The table below has the results from testing of the source wells and in the distribution system.

The practical quantitation limit (PQL) for the national primary drinking water regulations is 1 µg/L. The UCMR3 minimum reporting level of 0.2 µg/L gives more positive results for the total chromium.

	Chromium-total (µg/L)			Hexavalent chromium (µg/L)	
minimum reporting level (MRL)	0.2			0.03	
Sample location	March	September		March	September
Source Wells					
Central	0.27	0.273		0.275	0.257
Hoffman	0.312	0.261		0.286	0.26
Nevada	ND	ND		0.194	0.207
Parkwater	0.276	0.238		0.253	0.264
Ray Street	0.344	0.262		0.337	0.329
Distribution					
BPA Easement	0.208	ND		0.209	0.222
Southview	0.296	0.246		0.823	0.26
Eagle Ridge Two	0.284	0.224		0.277	0.25

ND = not detected at MRL

In 2011, four City wells were sampled and tested for hexavalent chromium.

Location (treated water, unless otherwise noted)	Sample date	Hexavalent chromium *(µg/L)*
Well Electric #5 (raw water)	4/26/2011	0.329
Parkwater	4/26/2011	0.262
Grace	4/26/2011	0.163
Nevada	4/26/2011	0.164
Parkwater	6/8/2011	0.259

The State of California has already adopted an MCL for hexavalent chromium. First, California's Office of Environmental Health Hazard Assessment established a public health goal (PHG) of 0.02 µg/L for hexavalent chromium (chromium -6) on July 28, 2011. California's PHG is a contaminant level in drinking water that does not pose a significant health risk. The PHG for chromium -6 is 0.02 parts per billion (ppb), which is the estimated "one in one million" lifetime cancer risk level. A PHG reflects the risk from long-term exposure to a contaminant and should not be used to estimate risks from short-term or acute exposure. Then on July 1, 2014, the California Department of Public Health adopted a MCL for hexavalent chromium of 10 µg/L. MCLs take into account not only health risks from exposure to a chemical, but also factors such as detectability and treatability, as well as costs of treatment to reduce a chemical's presence in drinking water. For more information on California's MCL visit waterboards.ca.gov/drinking_water/certlic/drinkingwater/Chromium6.shtml

More information on chromium in drinking water is available at this EPA site
www.epa.gov/dwstandardsregulations/chromium-drinking-water
The draft toxicological review for hexavalent chromium is also on line at
cfpub.epa.gov/ncea/iris_drafts/recordisplay.cfm?deid=221433

FIELD MEASUREMENTS

The City of Spokane routinely measures water parameters at the wells including water pH and temperature.

These are the average, maximum, and minimum pH measurements from the source wells in 2015. pH has a secondary maximum contaminate level (SMCL) of 6.5 to 8.5. SMCL's are guidelines for water purveyors to manage drinking water for cosmetic, aesthetic, and technical effects. Technical effects include scaling and corrosion.

Source Water pH			
Source Well	Average	Maximum	Minimum
Central	8.14	8.27	8.01
Grace	8.12	8.31	7.85
Hoffman	8.07	8.20	7.90
Nevada	8.08	8.34	7.83
Parkwater	7.94	8.31	7.53
Ray Street	7.64	7.91	7.33
Well Electric	8.07	8.60	7.43

The following are average, maximum, and minimum source water temperatures in degrees Fahrenheit for 2015. The City tracks and provides this information as water temperature changes can result in water quality changes and because of the increased interest in using the aquifer and aquifer water as a heat source and/or sink.

Source Water Temperature °F

Source Well	Average	Maximum	Minimum
Central	55.1	59	52.7
Grace	54.6	55.4	52.7
Hoffman	54.4	56.3	51.8
Nevada	54.6	57.2	52.7
Parkwater	55.2	59	51.8
Ray Street	54.4	55.4	53.6
Well Electric	54.9	59	53.6

These are measurements at the source. The values at a service location will be different based on the season and where it resides within the distribution system. The federal government has not established guidelines for drinking water temperature.

LEAD - COPPER

Lead and copper testing of sources and at-risk residences were conducted in 2015. The highest reading of lead in a home was 13.5 µg/L (ppb). The maximum reading for copper was 124 µg/L. These results for lead and copper continue to be less than the 15 µg/L Action Level for lead and the 1300 µg/L Action Level for copper. The lead results, based on City in-home sampling, also continue to qualify our water system as having "Optimized Corrosion Control." Source water is also analyzed for lead and copper concurrent with the in-home testing. **The maximum concentration in 2015 source water testing for lead was 0.16 µg/L and for copper was 5.63 µg/L.**

In 1992, the City completed the initial phase of testing for compliance with the Lead - Copper Rule. The City's 8 well stations at the time and 100 "at-risk" household taps were twice checked for lead and copper. Lead was not detected in the source water at or above two parts per billion. Copper levels in the source water were below 20 µg/L with the exception of one reading at 30 ppb. The federal government has a zero µg/L Maximum Contaminant Level Goal (MCLG) for lead and a 1300 µg/L MCLG for copper.

"At risk" homes were determined before testing. Homes with lead soldered copper plumbing and/or those with lead alloy service lines running from the street to the home are considered at risk. Fewer than 10% of at-risk homes had levels in excess of 8 µg/L of lead and 200 µg/L of copper. These levels were below the Federal 90th percentile action levels of 15 and 1300 µg/L respectively. Federal regulations require that 90% of the tested homes be below these levels. The table below shows the in home results for lead and copper testing. For reference, the 2015 Lead Copper results from Flint, Michigan, have a 90th percentile value for lead of 25 µg/L. For more information on the Flint, Michigan, water studies follow flintwaterstudy.org/information-for-flint-residents/results-for-citizen-testing-for-lead-300-kits/

		Lead (µg/L)		Copper (µg/L)	
Action level		15		1300	
Date	sample locations	Maximum reading	90th percentile	Maximum reading	90th percentile
First half 1992	104	15	7	510	200
Last half 1992	98	23	7	500	200
Nov-95	50	12	8	450	150
Aug-96	50	45	5	180	140
Aug-97	50	71	6	540	160
Aug-00	50	12	6	184	106
Aug-03	50	65	7	370	114
Jul-06	50	11	7	165	99.9
Aug-09	50	8	6	167	100
Aug-12	54	15	4	190	91.7
Aug-15	58	14	5	124	63.6

City records indicate that some 981 homes built during World War II originally were connected to the City's distribution system with lead alloy pipes. In addition, before lead solder was banned in 1988, it was commonly used to connect copper piping in homes. The Spokane Water Dept., in 2000, notified the then current owners of homes with water service lines made of lead alloy and extended an offer to replace the lead pipe, if the homeowner would pay the replacement cost from the property line into the house. 156 homeowners requested their water service line be replaced. The City has completed work at all 156 sites, replacing the service pipe up to the property line. It was not anticipated, but no lead pipe was found on any homeowner's side of the water service. Additionally, the Water Dept. has been replacing the City lead-alloy services when in-home testing results exceeded Action Limits and when water line work was already being conducted. Current Water Department records show 513 lead alloy connections remain in service. Citizens can check what their service line is made of on line. Go to maps.spokanecity.org/. Turn on the "water" layer under utilities; search for an address, click on the blue line that leads to the property; it will say it's copper or galvanized or lead. Some service lines are listed as unknown. Those residents can get more information by calling the Water Department at (509) 625-7800.

Testing on water left sitting in lead-containing pipes for at least 6 hours clearly demonstrates the fact that some lead moves into the water. The City encourages anyone with this kind of plumbing, drawing water for cooking or drinking purposes, to let water run from the tap until cold before filling their container, especially if the water is to be given to

infants or children. For further information concerning lead and copper in drinking water, you can access the Washington Department of Health website at www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/Contaminants/Lead and www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/Contaminants/Copper or the EPA at www.epa.gov/your-drinking-water/basic-information-about-lead-drinking-water and safewater.zendesk.com/hc/en-us/sections/202346427.

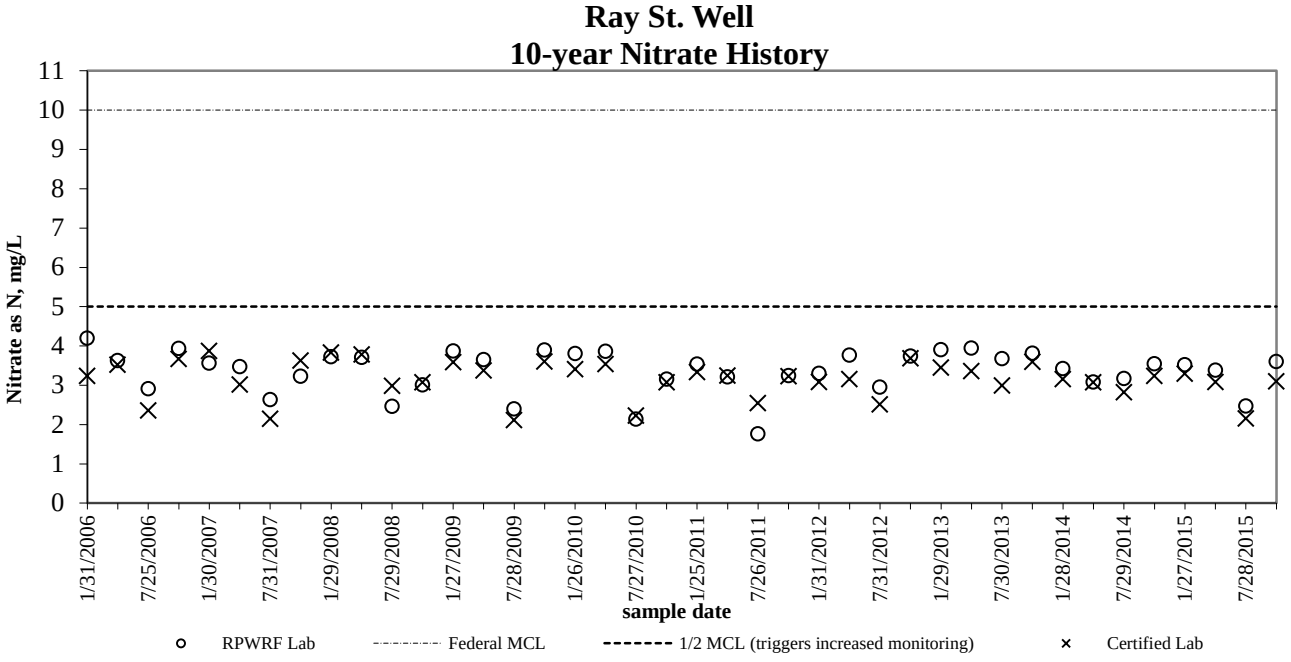
NITRATE - NITROGEN

The Ray Street Well continues to be monitored quarterly for Nitrate-N. **In 2015, the highest accredited lab quarterly result for the Ray Street Well was 3.29 mg/L,** or parts per million (ppm)**.** The federal MCL for Nitrate –N is 10 mg/L. The result from a duplicate sample analyzed by the Riverside Park Water Reclamation Facility (RPWRF) Laboratory was 3.52 mg/L. The quarterly results for Ray Street Well for 2015 are as follows:

Sample Date	*Accredited Laboratory Result - Nitrate-N, mg/L*	*RPWRF Laboratory Result – Nitrate+Nitrite-N, mg/L*
27-January-2015	3.29	3.52
28-April-2015	3.08	3.38
28-July-2015	2.15	2.47
27-October-2015	3.09	3.60

The trend for nitrate-nitrogen at the Ray Street Well has remained constant to slightly declining for a number of years.

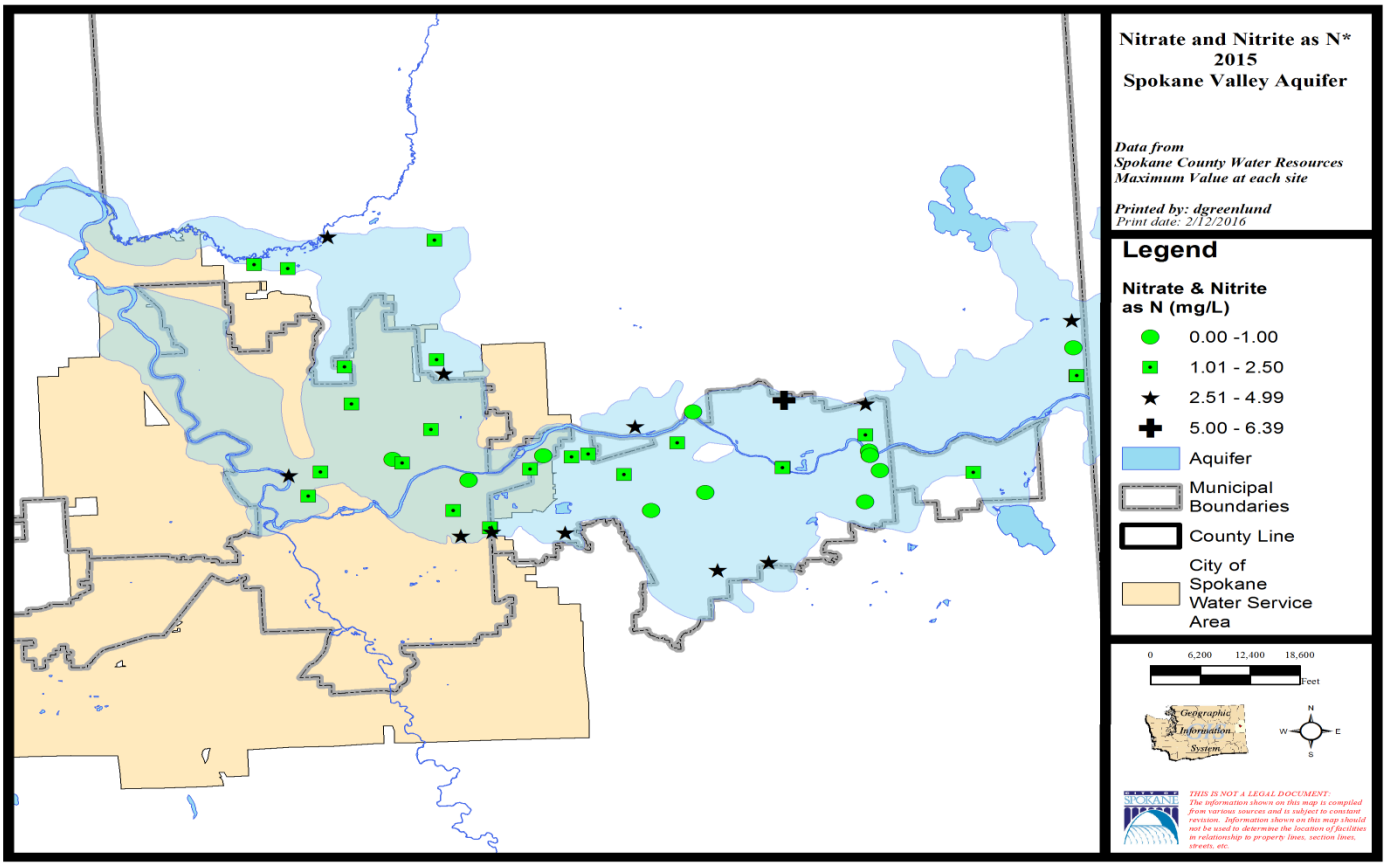
In July 1997, October 1999, and January 2005, the nitrate-nitrogen levels in the Ray Street well were reported by a certified lab as exceeding half the MCL, 5.23, 6.2, and 5.21 mg/L respectively.



All other City sources average 1.06 mg/L for 2015, less than a fifth of the MCL for nitrate-nitrogen. The 2015 results for the other City source wells are as follows:

Source Well	*Accredited Laboratory Result - Nitrate-N, mg/L*	*RPWRF Laboratory Result – Nitrate+Nitrite-N, mg/L*
Well Electric	1.22	1.45
Parkwater	1.28	1.50
Hoffman	1.32	1.57
Grace	0.82	0.94
Nevada	0.83	0.95
Central	0.90	1.01

The following map depicts the results of monitoring wells sampled during 2015 by the Spokane County Water Resources Program. The results are for nitrate+nitrite as nitrogen from monitoring wells and springs along the Spokane River and purveyor wells over the Spokane Aquifer. Where multiple sampling events occurred at the same location, the highest result is depicted on the map. There are a number of wells that had results between 2.51and 6.39 mg/L. These wells, including the City of Spokane Ray Street Well, are typically located along the edge of the aquifer and appear to be subject to nitrate loading to the aquifer that originates at higher elevations.



For further information concerning nitrate in drinking water and potential health issues, you can access the EPA website at safewater.zendesk.com/hc/en-us/sections/202346267-Nitrate or the Washington State Dept. of Health website at www.doh.wa.gov/Portals/1/Documents/Pubs/331-214.pdf.
(Para ver información adicional, visite al; www.doh.wa.gov/Portals/1/Documents/Pubs/331-214s.pdf)

PHOSPHORUS

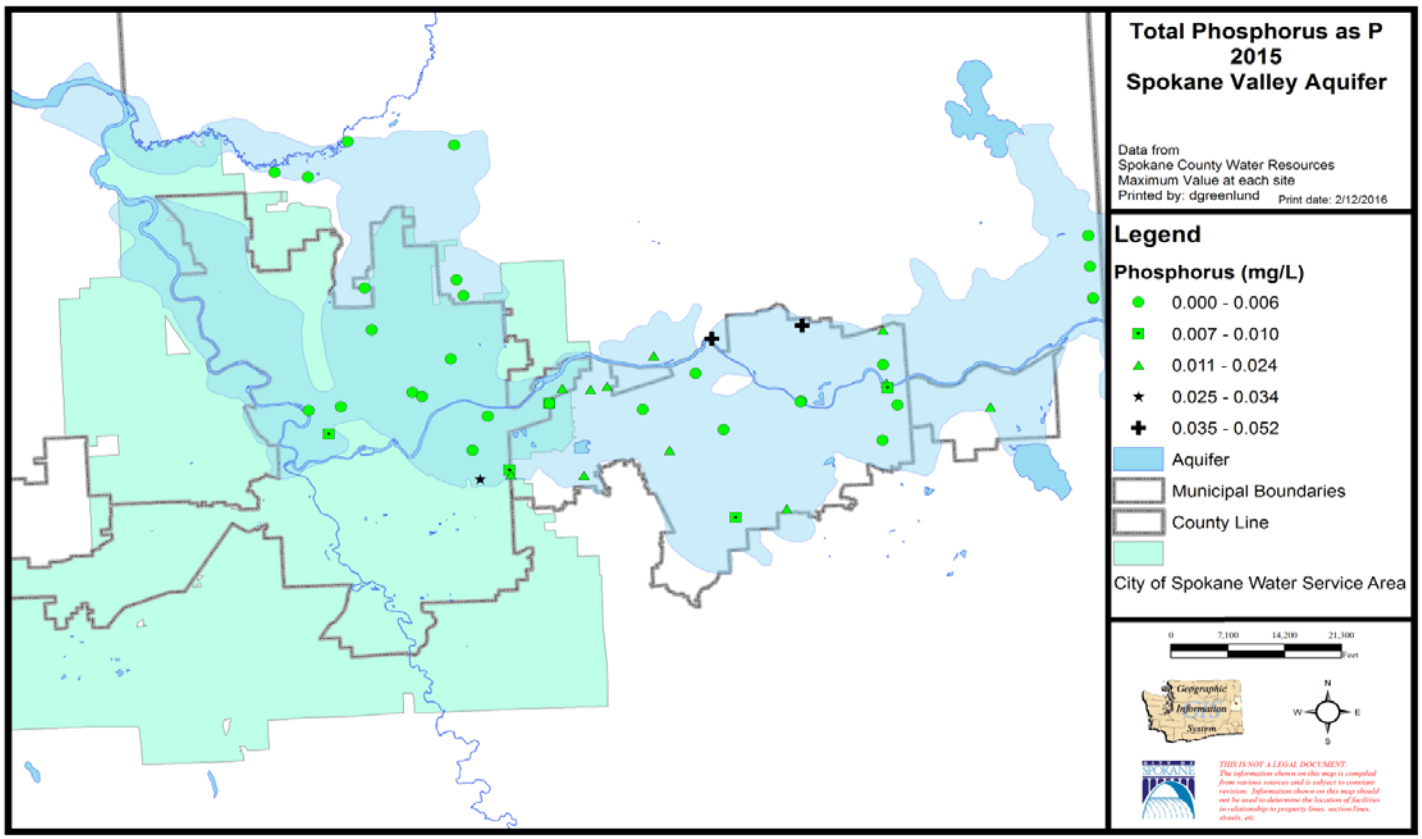
Drinking water regulations primarily deal with human health-related impacts. Phosphorus is not a drinking water regulated contaminant, but is of significant concern in this region as a pollutant in the Spokane River. Local groundwater makes significant contribution to the River and is the background for water discharged to sewer.

In July 2015, groundwater samples from the City source wells were analyzed by the City RPWRF Laboratory. **Similar to nitrate concentrations, most City wells have fairly low concentrations. The average concentration of the six city wells not including the Ray Street well was 0.0026mg/L. Ray Street Well was sampled four quarters and the annual average was .021mg/L.**

Location	*Date Sampled*	*PO4-P, mg/L*	*Location*	*Date Sampled*	*PO4-P, mg/L*
Electric	7/28/2015	0.0021	Central	7/28/2015	0.0047
Parkwater	7/28/2015	0.0013	Ray Street	1/27/2015	0.0263
Nevada	7/28/2015	0.0025	Ray Street	4/28/2015	0.0250
Grace	7/28/2015	0.0018	Ray Street	7/28/2015	0.0178
Hoffman	7/28/2015	0.0031	Ray Street	10/27/2015	0.0154

There is no drinking water regulatory limit for phosphorus, but to give this some context, the Total Maximum Daily Load for Dissolved Oxygen for the Spokane River calls for a phosphorus concentration limit of 0.010 mg/L in the river during the critical summer season.

During 2015, the Spokane County Water Resources Program collected and analyzed 125 samples from 49 locations for total phosphorus (including duplicate samples at several locations). Of that number, 30 samples from 15 different locations exceeded 0.010 mg/L. Following is a map demonstrating the distribution of total phosphorus results on the Washington side of the Spokane Valley-Rathdrum Prairie Aquifer.



CITY OF SPOKANE - ENVIRONMENTAL PROGRAMS
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This map illustrates that, similar to nitrate concentrations in groundwater, phosphorus concentrations are greatest along the sides of the valley. This likely indicates loading from run-off from higher elevations. There are a couple of sampling sites with higher values that appear not to be located near the sides of the valley or near the Spokane River. These sampling sites have total phosphorus concentrations in the range of 0.011 to 0.024 mg/L.

RADIONUCLIDES & RADON

RADIONUCLIDES

In 2015, the City of Spokane tested the Grace and Well Electric source wells for Radium 228 and Gross Alpha. The table below has the results.

	Gross Alpha Particle Activity	Radium 228	Combined Radium 226/228 *
Grace	< 1	< 0.5	0.5
Well Electric	1.47	< 0.5	1.47

All results in pCi/L

Historical maximum Radionuclide results in pCi/L

	Sample Date	Gross Alpha Particle Activity	Sample Date	Radium 228	Sample Date	Combined Radium 226/228
Central	4/28/2010	3.83	7/26/2005	0.32	4/28/2010	3.83
Grace	7/27/2010	2.06	4/21/2009	1.9	7/27/2010	2.06
Hoffman	4/28/2010	3.46	7/26/2005	0.29	4/28/2010	3.46
Nevada	7/27/2010	3.59	4/23/2013	1.23	7/27/2010	3.59
Parkwater	7/27/2010	6.13	4/26/2011	2.51	4/26/2011	3.01
Ray Street	7/27/2010	2.14	4/29/2014	1.04	7/27/2010	2.14
Well Electric	4/28/2010	4.71	7/27/20110	0.68	4/28/2010	4.71

Gross Alpha particle activity has an MCL of 15 pCi/L. The federal MCL for Radium 226 and Radium 228 (combined) is 5 pCi/L. The City of Spokane results were below the MCL.

The radionuclide rule allows Gross Alpha results to be used in lieu of Radium 226 if the Gross Alpha particle activity is below 5 pCi/L. If the gross alpha particle activity result is below the detection limit, one-half of the detection limit is used to determine compliance[3]. The radionuclide rule also allows a Gross Alpha particle activity measurement to be substituted for the required uranium measurement provided that the measured gross alpha particle activity does not exceed 15 pCi/l. The Gross Alpha activity was below 15 pCi/L so the City did not test for Uranium.

* If the Radium 228 or 226 value is <1.0, a value of zero will be used to calculate the Combined Radium 226/228[4].

For more information on radionuclides in drinking water, access the EPA website at safewater.zendesk.com/hc/en-us/sections/203280387-Radionuclides

[3] 40 CFR 141.26a (5)
[4] 40 CFR 141.26c (3) v

RADON

The Water Department monitored the Grace and Well Electric wells for radon in 2015, with results of 385 pCi/L, and 424pCi/L respectively. The city has sampled the source wells 73 times for radon since 1993. The table below has the highest reading from each well.

Radon in pCi/L

	Sample Date	Highest Result
Central	4/29/2008	534
Grace	10/25/2005	577
Hoffman	10/25/2005	577
Nevada	4/23/2013	542
Parkwater	7/29/2008	534
Ray Street	4/27/2005	518
Well Electric	7/26/2008	565

The Environmental Protection Agency has published a proposed rule for regulating the concentration of radon-222 in drinking water. The rule proposes a maximum contaminant level goal (MCLG) of zero, a maximum contaminant level (MCL) of 300 pCi/L, and an alternative maximum contaminant level (AMCL) of 4000 pCi/L. The proposed rule would require that community water supply systems (including the City's) generally would have to comply with the MCL of 300 pCi/L, unless there is a multi-media mitigation program (MMM) in place. With a MMM, the AMCL of 4000 pCi/L would apply.

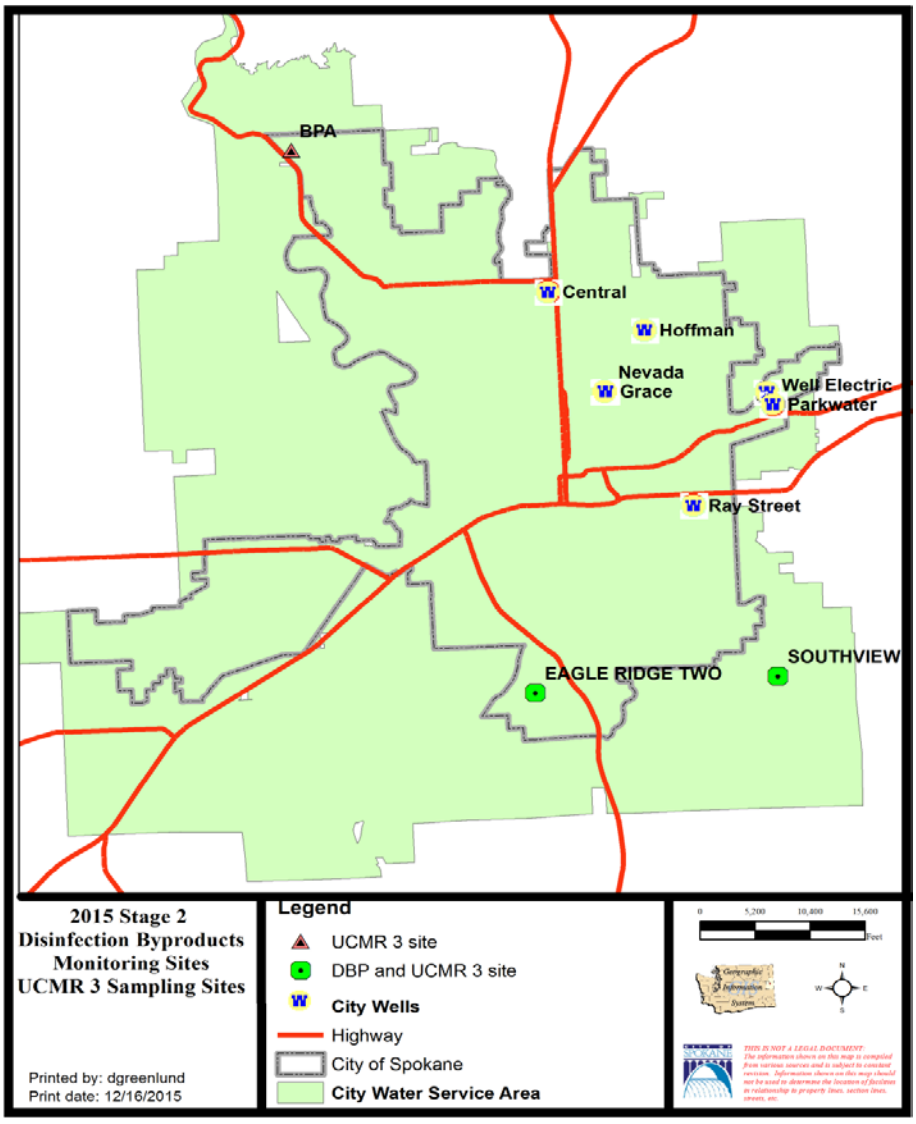
The publication of the proposed rule was November 2, 1999, and the comment period closed February 4, 2000. The final rule was expected to be published one year from that date. The rule had been listed on the Unified Agenda of Federal Regulatory and Deregulatory Actions with the status of the radon regulation final action "To Be Determined." In the January 2012 update of the Unified Agenda, the rule was no longer on the EPA agenda list.

Radon gas is one of a number of radioactive elements that result from the radioactive decay of uranium found locally in natural deposits. Exposure to excessive amounts of radon may increase cancer risk. Most of these risks result from exposure to radon in indoor air. The EPA has determined that 1-2% of the radon in indoor air comes from drinking water. For more general information concerning radon in the environment and the associated health issues, access the EPA website at www.epa.gov/radon or call the Radon Hotline at *1-800-SOS-RADON [*1-800-767-7236]. An EPA publication titled "A Citizen's Guide to Radon" can be downloaded from www.epa.gov/radon/citizens-guide-radon-guide-protecting-yourself-and-your-family-radon.

ORGANICS

DISINFECTION BY-PRODUCTS – DISTRIBUTION SYSTEM

The maximum value during 2015 compliance monitoring of the distribution system for total trihalomethanes (TTHM) was 3.98 µg/L and for haloacetic acids (HAA5) was no detection. This is well below the federal MCL of 80 µg/L for total trihalomethanes and 60 µg/L for the sum of five haloacetic acids. The by-products are only detected at the extreme end of the distribution system. The Stage 2 Disinfectants and Disinfection By-products Rule requires a Locational Running Annual Average (LRAA) be used for reporting compliance. This is the average of four quarterly samples for each sampling location. The City uses small amounts of chlorine as a drinking water disinfectant. However, the disinfectants themselves can react with materials in the water to form byproducts, which may pose health risks. The maximum value for TTHM was 5.64 ppb. Appendix V has the results for all 2015 quarterly sampling. There were no detections of haloacetic acids at any sampling site in 2015. The Stage 2 Disinfectants and Disinfection By-products Rule allows for reduced monitoring if the results are less than one half the MCL. This is 40 µg/L for TTHM and 30 µg/L for HAA5. The City met this requirement and was granted a reduced monitoring schedule from the Washington State Department of Health. Beginning in 2014, the City sampled quarterly at the Southview and Eagle Ridge Two locations.



In 2015, two sites were sampled every quarter. They were Eagle Ridge Two, and Southview. For more information on the Stage 2 DBPR, go to the EPA website water.epa.gov/lawsregs/rulesregs/sdwa/stage2/index.cfm

2015 was the fourth year of sampling under the Stage 2 Disinfectants and Disinfection Byproducts Rule. Starting in 2007 and continuing until 2010, the City Water Department performed assessment monitoring at over 20 locations (approximately five each year) to determine the potential for disinfection by-products (DBP) to be formed during the detention period in the distribution system. The DBP assessment sampling sites were selected from the existing coliform sampling sites. Based on this sampling and analysis of the retention time of water in the distribution system, locations were determined for the Stage 2 distribution system sampling program.

VOLATILE ORGANICS

In 2015, the City of Spokane tested the Parkwater, Ray Street and Well Electric well stations for Volatile Organic Compounds (VOC). There were no detections.

The most recent VOC detection in a source well occurred on July 27, 2004, at the Hoffman well of Tetrachloroethene at 3.09 µg/L (aka Perchloroethylene or "Perc"). The MLC is 5 µg/L. City staff conducted an investigation of the immediate vicinity (the Well Station property and adjacent neighboring properties). Interviews with Water Department staff revealed that routine maintenance of the production pump motor using a commercial solvent with the sole ingredient being Tetrachloroethene occurred just prior to sampling. Standard Operating Procedures were changed so this product would no longer be used inside a well station.

On July 25, 2000, the Hoffman well was sampled for VOCs, and the test results showed a detection for dichloromethane of 1.50 µg/L. The MCL is 5 µg/L and the MCLG is zero. The laboratory was contacted, and the laboratory blank (an analytical sample that is expected to be free of contamination) also had a detection for dichloromethane with a concentration of 4.06 µg/L. As this compound is a common laboratory contaminant and present in the blank at over twice the sample result, the Department of Health concurred with our assessment that this does not characterize an actual detection in the source water.

During 1998, Trichlorofluoromethane (aka Freon 11) was detected at the Hoffman and Grace wells in the July testing. The concentrations were 1.1 and 0.6 ppb, respectively. This volatile compound is not regulated under Federal Drinking Water regulations. These concentrations are well below the Washington State Advisory level (SAL) of 1300 ppb.

Historically, Central, Grace, Nevada, and Ray Street well stations have had detections (not exceedances) of regulated volatile organic compounds, other than Trihalomethanes. Prior to the 2004 detection at Hoffman the most recent detection of 1,1,1-Trichloroethane, or Tetrachloroethene was July 1995. All of these detections were below the MCLs of 200 µg/L and 5 µg/L respectively.

In February of 1992 1,3 Dichloropropane was detected at Hoffman well at 0.6 µg/L. This unregulated VOC does not have an MCL.

Many compounds have been tested for and not detected. Appendix II: "TESTS RUN ON CITY OF SPOKANE WATER" on page 31 has a comprehensive list of the volatile and synthetic organic chemicals tested including 2015. Refer to Appendix VI for a historic summary of ORGANIC CHEMICAL DETECTIONS for each well station that contributes to the City Water System. Only organic compounds that have previously been detected in City water are listed in the Drinking Water Report table.

Trihalomethanes (THMs, chloroform, bromoform, bromodichloromethane, dibromochloromethane) are one group of volatile organic, disinfection by-products. That is to say, they can originate from chemical interactions between a disinfectant (chlorine gas in the City's system) and any organic matter present in the raw water. **There were no detections of THMs in source water monitoring for 2015**. The most recent detection in source water was in 2000 when the Hoffman well result for total THM was 1.92 µg/L.

MtBE (METHYL TERT-BUTYL ETHER)

Parkwater, Ray Street, and Well Electric well stations were monitored for MtBE in 2015 in conjunction with the regularly scheduled Volatile Organic Compounds (VOC) monitoring. There were no detections at a detection limit of 0.5 µg/L. The City has included testing for MtBE with the VOC monitoring since 2005 and has had no detections.

MtBE is a gasoline additive used throughout the United States to reduce carbon monoxide and ozone levels caused by automobile emissions. There is currently a drinking water advisory for MtBE. This advisory recommends a range of 40

µg/L or less based on consumer acceptance of potential taste and odor. The EPA believes this would also provide a large margin of exposure safety from toxic effects.

Further information concerning the health impact, environmental effects, and technical background of MtBE can be found at the following website: the EPA Office of Water at water.epa.gov/drink/contaminants/unregulated/mtbe.cfm

PBDE (Polybrominated Diphenyl Ethers)

Ecology and Washington State Department of Health jointly published *Washington State Polybrominated Diphenyl Ether (PBDE) Chemical Action Plan: Interim Plan on Dec. 31, 2004.* Given concern about this seemingly ubiquitous family of compounds, in April of 2005 the Water Department conducted investigative monitoring for PBDE. There were detections of 2 congeners from Well Electric; 2,2',4,4'-Tetrabromo diphenyl ether at 0.36 ng/L, and 2,2',4,4',6-Pentabromo diphenyl ether at 0.5 ng/L.

Polybrominated diphenyl ethers (PBDEs) are a class of additive brominated flame retardants used in a variety of plastics and foams. The PBDE class includes 209 different theoretical forms of the PBDE molecule, called congeners. Drinking water is believed to be a very minor source for the estimated daily exposure from all sources (i.e. water, food, air, etc.). Note that further sampling for four PBDE congeners occurred in the UCMR Round 2 (further discussion on page 26). Also note that during 2007, the Governor of Washington signed into law, a limited prohibition of PBDE in Washington (2007-ESHB-1024). For further information, refer to the *Washington State Polybrominated Diphenyl Ether (PBDE) Chemical Action Plan: Final Plan (Jan. 19, 2006)* at www.ecy.wa.gov/pubs/0507048.pdf
For further information concerning PBDE and EPA activities, go to www.epa.gov/fedfac/technical-fact-sheet-polybrominated-diphenyl-ethers-pbdes-and-polybrominated-biphenyls-pbbs

PCBs (Polychlorinated Biphenyls)

The City tests for PCBs as part of the synthetic organics testing. The testing has been performed since 1994 with no detections of PCBs. The MCLG for total PCB is zero. The MCL is 0.0005 mg/L or 0.5 µg/L. For more information on PCBs in drinking water, visit this EPA site safewater.zendesk.com/hc/en-us/sections/202366248-Polychlorinated-biphenyls-PCBs-, or the Washington State Department of Health at www.doh.wa.gov/CommunityandEnvironment/Contaminants/PCBs

The Safe Drinking Water Act passed in 1974, which in Washington State is administered by the Department of Health, regulates public water systems such as the City. Surface water is regulated under the Clean Water Act (CWA). The Washington State Department of Ecology administers the CWA in our state. The CWA regulates total PCB's in surface water currently at 0.00017 µg/L. This level is much lower than the drinking water level because PCB's bioaccumulate in the food chain. The level is set to protect people who consume fish and other aquatic organisms. The Department of Ecology is revising the fish consumption rate included in the determination of PCB levels. For more information on surface water quality standards and fish consumption rates, visit the Department of Ecology at www.ecy.wa.gov/water/standards/.

There is a Fish Advisory on the Spokane River due to PCB levels in the fish. Follow this link to the Department of Health Advisory www.doh.wa.gov/Portals/1/Documents/Pubs/334-164.pdf

Locally, the Spokane River Regional Toxics Task Force (SRRTTF) is leading efforts to find and reduce toxic compounds in the Spokane River. The goal of the task force is to develop a comprehensive plan to bring the Spokane River into compliance with water quality standards for PCBs. The City is a member of the SRRTTF. For information on the SRRTTF and work they have performed visit: //srrttf.org/. The Department of Ecology and Spokane County have started a groundwater survey for PCBs. They are using an analytical method that will provide results for very low levels of contaminants. With the low detection limit, there is the possibility of detecting PCBs that are non-detect with the test methods used for drinking water evaluations. The final report will be posted to the SRRTTF website when the study is completed.

SYNTHETIC ORGANICS

The City of Spokane tested the Nevada, Parkwater, Ray Street, and Well Electric wells (twice each) for Synthetic Organic Chemicals (SOC) in 2015. There were no detections. The City conducts tests for more than 140 different chemicals including pesticides, herbicides, PCBs, and phthalates (plasticizers).

The City began testing for SOC's in the source water in 1994 and there have been 12 detections since then. In the first two quarters of 1994, Parkwater testing detected Di(2-ethylhexyl) Phthalate twice (0.3 & 0.2 µg/L). Di(2-ethylhexyl) Adipate was detected once (2.1 µg/L) at Parkwater and again in 1997 at Hoffman (0.7 µg/L). The MCLs for these compounds are 6 µg/L, and 400 µg/L respectively. Di(2-ethylhexyl) Phthalate has a MCLG of zero. These two compounds are associated with synthetic rubber and plastic, which are common in labs and industry. A detection of Di-n-Butylphthalate showed up at low levels in all seven wells sampled in August of 1997. This compound, which is currently an unregulated SOC, was also detected in the laboratory blank. The fact it was found in the blank supports the idea that it showed up as a result of laboratory contamination and was never in the sampled water. In 2006, the October sampling at Well Electric detected Di-Methyl Phthalate at 0.70 µg/L (detection limit is 0.4 µg/L). The compound is a common laboratory contaminant and is not regulated (i.e. there is no MCL).

Other than these 12 detections all other results since 1994 have been non-detect.

Appendix VI contains the historical results for ORGANIC CHEMICALS, including the SOC results. Some of the compounds in the Unregulated Contaminant Monitoring Rule (UCMR) Round 1 are also in the SOC testing, so the UCMR Round 1 testing was conducted with SOC testing during 2003.

UNREGULATED CONTAMINANT MONITORING – ROUND 3

The Unregulated Contaminant Monitoring Rule (UCMR) is a tool for the EPA to find unregulated contaminants of concern in the nation's drinking water. The contaminants for testing are selected on three main criteria: EPA believes that they are likely to occur in drinking water, they could be harmful, and there are testing methods to look for them in drinking water. UCMR 3 has 30 contaminants including: seven volatile organic compounds, one synthetic organic compound, six metals, one oxyhalide compound, and seven hormones. Two viruses were included in the list 3 contaminants, but the City was not required to test for them. A complete list of the contaminants, analytical results, minimum reporting limits (MRL's), and available Health Reference Levels (HRL's) is in appendix XI. For more information on UCMR 3 visit this EPA site http://www.epa.gov/dwucmr/third-unregulated-contaminant-monitoring-rule. Nationwide results from UCMR 3 will help the EPA determine whether it should regulate a specific contaminant. More information on how the EPA regulates drinking water contaminants is available at www.epa.gov/dwregdev/how-epa-regulates-drinking-water-contaminants.

All of the compounds were sampled at five of the wells: Central, Hoffman, Nevada, Parkwater, and Ray Street. In addition, the metals and oxyhalide were sampled in the distribution system at locations that represent the maximum residence time in the distribution system. Refer to the map on page 21 for the sampling locations. Each location was sampled twice, once in March and again in September of 2015.

There were several detections of different contaminants in both the source water and distribution system.

"Under the current cycle of the Unregulated Contaminant Monitoring Rule (UCMR 3) chemicals are being studied at levels that are often significantly below those in prior UCMR cycles. Importantly, UCMR 3 minimum reporting levels (MRLs) were established based on the capability of the analytical method, not based on a level established as "significant"

or "harmful." In fact, the UCMR 3 MRLs are often below current "health reference levels" (to the extent that HRLs have been established).

Results of UCMR 3 measurements should be interpreted accordingly. The detection of a UCMR 3 contaminant above the MRL does not represent cause for concern, in and of itself. Rather, the implications of the detection should be judged considering health effects information (which is often still under development or being refined for unregulated contaminants)."[5]

The oxyhalide, chlorate, was detected in March of 2015 at the Southview tank at 21 µg/L. Chlorate is a distribution system by-product which can form when chlorine, the disinfectant that Spokane uses, reacts with oxygen. UCMR 3 has an MRL of 20 µg/L for chlorate.

Chlorodifluoromethane (HCFC-22) was detected at the Parkwater well in September 2015 at 0.142 µg/L. HCFC-22 is a volatile organic compound that has commonly been used as a refrigerant. Historically it was also used as a blowing agent in certain foam applications and as a propellant in aerosols, but these applications were banned in January of 2010 under the Clean Air Act. UCMR 3 has an MRL of 0.08 µg/L for HCFC-22.

Five of the six metals had detections. Cobalt was not detected. Refer to page 12 for a discussion on chromium and hexavalent chromium.

Strontium was detected in both March and September at all eight sampling locations. The highest detected value was 156 µg/L at the Ray Street well in March 2015. Strontium is a naturally occurring element. Strontium is a required element in the faceplate glass of cathode-ray tubes used in televisions and color monitors to block x-rays. There is also a radioactive isotope of Strontium, Sr-90, which is regulated as a beta emitter under the radionuclide rule. The radionuclide rule is discussed on page 19. UCMR 3 has an MRL of 0.3 µg/L for Strontium.

Molybdenum was detected at the Parkwater and Ray Street wells and in the distribution system at the Eagle Ridge Two and Southview tanks in both March and September. This is a total of 8 detections. The highest detected value was 1.67 µg/L at the Parkwater well in March. Molybdenum is a naturally occurring element. It is used as an alloy in steel and a catalyst in petroleum refining. Molybdenum is an essential trace element for plants and animals. UCMR 3 has a MRL of 1 µg/L for molybdenum.

Vanadium was detected at Central, Hoffman, and Ray Street wells in both March and September. In March it was detected at the Southview tank, and in September it was detected at the Southview tank and BPA Easement. This is a total of 8 detections. The highest detected amount was 0.565 µg/L at the Ray Street well in March. Vanadium is a naturally occurring element. The largest use of Vanadium is as an alloy in the production of steel. It is also used in ceramics and as a catalyst. Vanadium is combined with Gallium to make superconductive magnets. UCMR 3 has a MRL of 0.2 µg/L for Vanadium.

UNREGULATED CONTAMINANT MONITORING – ROUND 2

Further information on Round 2 testing, including the specific contaminants, can be found at the EPA UCMR Rd2 website, http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/ucmr2/index.cfm .

The City of Spokane Water System, given its size, was required to conduct Assessment Monitoring (List 1) for 10 chemicals and Screening Survey (List 2) for 15 contaminants twice during a 12-month period during January 2008 through December 2010. In July of 2009, the City of Spokane began the UCMR Round 2 testing by sampling all of the well sites for the chemicals on both lists. **There were no detections of any of the 25 contaminants on Lists 1 and 2.** In 2010, the City of Spokane again sampled all the wells for the 25 contaminants on List 1 and 2. **In January 2010, there**

[5] The Third Unregulated Contaminant Monitoring Rule (UCMR 3): Data Summary, October 2015, United States EPA

was a detection of N-nitroso-dimethylamine (NDMA) at the Parkwater well of 0.00216 ppb. The detection limit for this compound is 0.002 ppb. There are no MCL's for chemicals in the UCMR.

The Unregulated Contaminant Monitoring Rule also required the City to test for the nitrosamine compounds in list 2 at the maximum residence time location of the distribution system. (See page 20 for a discussion on the sampling location.) The BPA easement location was sampled in 2009 and 2010. **There were no detections of these contaminants at the BPA easement.**

In 2005, the City sampled for four of the list 1 chemicals (see page 23). They were tested at the part per trillion (ppt) level while the current UCMR testing has method detection limits at the part per billion (ppb) level. Appendix X contains the UCMR 2 List 1 and List 2 chemicals and the test results.

UNREGULATED CONTAMINANT MONITORING – ROUND 1, List 1

The reauthorization of the Safe Drinking Water Act in 1996 resulted in changes to the EPA Unregulated Contaminant Monitoring Regulations (UCMR). Pursuant to these promulgated rules, the City of Spokane participated in UCMR Round 1 during 2002-2003, as required.

The List 1 contaminants were sampled two times at source wells, except Well Electric which we sampled four times (due to its proximity to the Spokane River). **There were no List 1 detections.** List 2 was for those contaminants for which methods had to be developed. Spokane was randomly selected to test for one micro-organism, see page 26. The sampling schedule and results summary are found in Appendix VIII.

Further information concerning the UCMR testing can be found at:
http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/index.cfm

MICROBIOLOGICAL CONTAMINANTS

COLIFORM BACTERIA - SOURCE

The City of Spokane well station raw source water (the water before disinfectant chlorination) has been tested regularly for coliform bacteria. While historically there has been no requirement to test for coliform bacteria in source water, the City has monitored for this water quality parameter. More recently, testing requirements to determine whether hydraulic continuity exists with the Spokane River have increased the testing frequency. **In 2015, out of 92 tests for coliform bacteria in the City source water wells, there were no detections of total coliform, and no detections of fecal coliform.**

Out of 426 tests over the five-year period from 2011 through 2015, there have been no detections of total coliform. There have been no detections of fecal coliform in the source water during this time frame.

HETEROTROPHIC PLATE COUNT BACTERIA – SOURCE

In 2015, out of 83 Heterotrophic Plate Count (HPC) tests on source water, there were 35 positive results. The greatest concentration was 681 colonies per milliliter of sample at the Hoffman Well. HPC tests were conducted 361 times over the five-year period from 2011 through 2015 on raw source water. There have been 110 positive HPC results. Washington state drinking water regulations state: "*Water in a distribution system with a HPC level less than or equal to 500/mL is considered to have a detectable residual disinfectant concentration.*"[6] The maximum detection during this five-year period was 806 colonies per milliliter at the Hoffman Well in 2011. Without regard to source water HPC levels, City source water is treated with chlorine to safeguard drinking water quality. This is done based on the historical use of

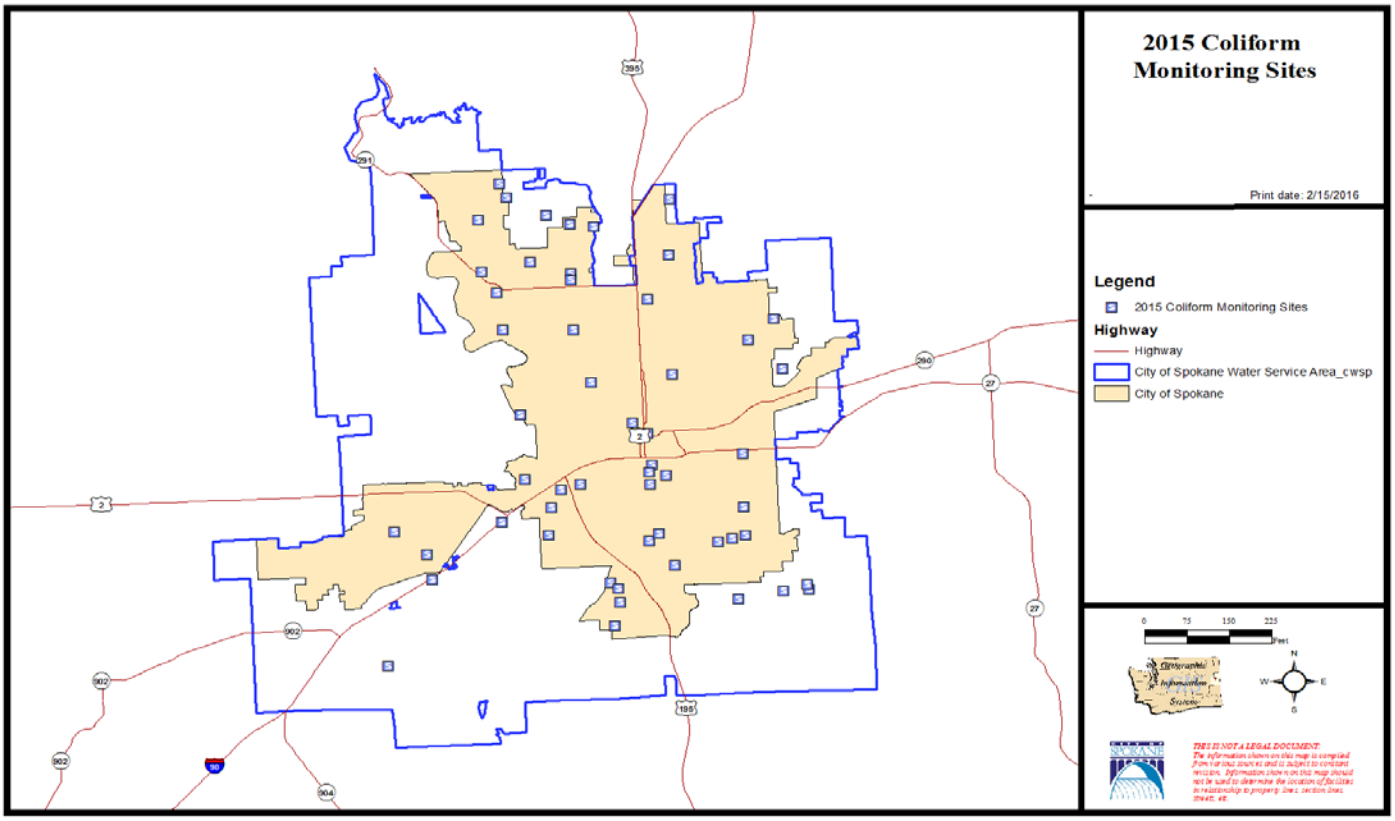
[6] Ref. WAC 246-290-451 (3)(c)

open reservoirs (which no longer exist) and to preserve the sanitary quality when a well or piping is open to the environment during construction, repair or routine maintenance. Some water utilities in this area (drawing from the same aquifer) do not add any disinfectant.

COLIFORM BACTERIA - DISTRIBUTION SYSTEM

Coliform testing is typically done four days a week from various points in the distribution system. The Water Department has more than 220,000 customers. This population tier[7] requires taking 150 samples per month, which was adopted as the target for distribution system coliform monitoring by the Water Dept. in 2007. When a coliform positive test result is reported, re-sampling is done in compliance with the Total Coliform Rule and the Groundwater Rule. **During 2015, the City Water Department had 1,940 coliform bacteria samples analyzed. On July 6th there was one positive total coliform result in the distribution system.** Six additional samples were collected based on this result to confirm or deny the original result. These samples were negative for total coliform and the original result was not confirmed. 1,974 samples were analyzed in 2014 and, 1,974 samples were analyzed in 2013.

The Water Department staff has worked to refine the sampling sites for the distribution system. Concerns about inadvertent contamination of sampling sites and locations that don't adequately represent the distribution of the water system has caused the Water Department staff to establish more dedicated sampling sites at locations more representative of the entire system. Following is a map of the distribution system sampling sites during 2015, overlaid on the City's water service area. It is important to note that the sample sites are evenly placed based on the distribution system, which may not currently reach all parts of the water service area, and population density.



Water Department staff state that coliform bacteria have not been confirmed in the distribution system for at least the last 35 years. Sample handling or collection errors are suspected causes of any original detections.

[7] Ref. WAC 246-290-300 (3)(f-Table 1)

AEROMONAS BACTERIA- DISTRIBUTION SYSTEM

The UCMR Round1 - List 2 candidates were sampled by a small, EPA randomly chosen group of water systems. One group of water systems tested for the chemical candidates and a separate group of water systems tested for the microbiological candidate. The City of Spokane was one of the water systems randomly chosen to test for the microbe, which was *Aeromonas spp.*, with analysis conducted using EPA method 1605**.**

There were no detections of Aeromonas spp. in this sampling.

The List 2 testing for *Aeromonas spp*. was conducted during 2003. Three sampling sites were identified in the distribution system for each sampling event. Three samples (one from each location) were taken from these predetermined locations in the distribution system. These points were chosen based on: 1) an average chlorine residual, 2) a "dead-end" point where the chlorine residual has had its lowest concentration, and 3) the longest (furthest away) residence time in the system. The mid-point sample location (average residual) was set at Fire Station #3 at 1713 W. Indiana. The lowest residual sampling point was selected to be at the Shawnee Water Tank in the distant northwest corner of Spokane. The longest residence time was set at a business located on the West Plains, west of the City.

There were six sampling events during the year, including three of the events during the summer months (July, August, September). Appendix VIII summarizes the sampling schedule and results.

Further information concerning the Aeromonas spp. can be found in an EPA report at:
http://nepis.epa.gov/Exe/ZyNET.exe/

PROTOZOA

A number of cities and towns throughout the country, in years past, have experienced problems with giardia and/or cryptosporidium getting into the distribution systems. Most times, problems with these parasitic organisms in potable water have been associated with surface water sources. **The City is not aware of, nor has the State Department of Health or Spokane Regional Health District indicated an awareness of, cases where infections with these organisms were traced back to the City's water system**.

Please note that cryptosporidium and other water borne organisms can be spread in many ways. People who become ill as a result of consuming giardia and/or cryptosporidium typically recover after suffering severe bouts of diarrhea. However, small children, people whose immune systems are compromised, or those who are otherwise in poor health can die as a result of these infections. For further information concerning the potential health effects issues, access the websites at the CDC at www.cdc.gov/parasites/crypto/index.html (cryptosporidium) and www.cdc.gov/parasites/giardia/index.html (giardia) and the EPA website at safewater.zendesk.com/hc/en-us/sections/202346417 .

VIRUSES

During 2006, the Water Dept. conducted an investigative sampling for coliphage viruses. The 2006 report detailed the sampling to date and out of 20 results, there was one "presence" result for Host: E. coli Famp (15597) detected at the Grace Well Station (May 3, 2006). **The study concluded in January 2007; out of 4 results (bringing the study total to 24 results) there were no additional detections.** Sampling information (including the January 2007 results) is located in Appendix IX.

Coliphage viruses live in coliform bacteria hosts and their presence in groundwater may be an indication of fecal contamination. Ten samples from five wells were submitted and each sample was tested using Method 1601 qualitative (presence/absence, two-step enrichment procedure) for two types:
E. coli F_{amp} for male-specific coliphage and, E. coli CN-13 for somatic coliphage.

Some cities and other utilities have done virus testing as part of their Information Collection Rule requirements. Results of their testing, as well as recent research studies, demonstrate that viruses react differently than bacteria to deactivation from environmental effects or disinfection treatment. This information should provide valuable insight into what viral concerns we should have and into what testing methods are best used.

UCMR 3 had two viruses; enteroviruses, and noroviruses, on the List 3 for testing by a representative sample of 800 non – disinfecting ground water public water system serving less than 1000 customers. Information on the occurrence data for UCMR 3 is available from the EPA at www.epa.gov/dwucmr/occurrence-data-unregulated-contaminant-monitoring-rule#3

Environmental Programs is not aware of any other testing having been done, to date, for viruses in Spokane Valley-Rathdrum Prairie Aquifer water.

UP GRADIENT MONITORING WELLS

The city has monitoring wells up gradient of each production well. A fire at the Whitley Fuel facility in July 2008 prompted the use of monitoring wells to determine if run off from the firefighting would impact drinking water. County sampling at a nearby sentinel monitoring well on August 1, 2007, resulted in a detection for Diesel-range Total Petroleum Hydrocarbon at 0.341 mg/L. Although it was later believed to be unrelated to the Whitley Fuel fire, it gave cause for concern and resulted in additional sampling from the sentinel well. Sampling for Volatile Organic Compounds (including Tentatively Identified Compounds) and Diesel-range Total Petroleum Hydrocarbons were conducted at Grace and Nevada wells on approximately a weekly basis from July 31, 2007, to September 26, 2007. The sampling frequency was decreased to monthly from October 2007 to the conclusion in August 2008. There were no detections at Grace and Nevada Wells and no further detections at the sentinel monitoring well**.**

Following this initial testing, a plan was made to sample the up gradient monitoring wells. These wells are sampled quarterly to determine the potential for contaminants to reach the drinking water wells. Appendix XII has the results of the sampling since the start in 2011. There are 6 monitoring wells covering the 7 production wells. Grace and Nevada wells share a monitoring well. There have been seven detections at four different wells. All of these detections have been characterized as organic material similar to biological slime. A gas chromatograph coupled with a mass spectrometer (GC/MS) is used to look for tentatively identified compounds. Samples with a tic >90% match to a reference spectra and a concentration greater than an estimated 0.5 µg/L are reported.

These monitoring wells are sampled by the county for inorganic chemicals. The results from that sampling program are used to generate the nitrate and phosphorous figures in this report.

English:
This report contains important information about the drinking water supplied by the City of Spokane. Translate it, or speak with someone who understands it well.

Spanish:
Este reporte contiene información importante acerca del agua potable suministrada por la Ciudad de Spokane. Tradúzcalo, o hable con alguien que lo entiende bien. (Para ver información adicional, visite al; http://espanol.epa.gov/espanol/agua)

Russian:
В этом отчете содержится важная информация относительно питьевой воды, поставляемой службой города Спокэн. Переведите этот отчет или поговорите с тем, кто его хорошо понимает.

Vietnamese:
Bản phúc trình này chứa đựng những thông tin quan trọng về nước uống được cung cấp bởi City of Spokane. Hãy phiên dịch, hay hỏi thăm người nào hiểu rõ về tài

GENERAL INFORMATION

Across the nation, the sources of drinking water (both tap water 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 radioactive material and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

- Biological contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm run-off, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water run-off, and residential uses.
- Organic chemicals, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water run-off and septic systems.
- Radioactive materials, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food & Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protections for public health.

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. More information about contaminants and potential health effects can be obtained by contacting the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791), on line at www.epa.gov/your-drinking-water/safe-drinking-water-hotline ,or you can access additional information at EPA website: www.epa.gov/your-drinking-water

HEALTH INFORMATION

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 from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Additional information concerning:

Radon: During 2015, the City conducted tests at Grace and Well electric wells for Radon-222. The results were 385 pCi/L, and 424 pCi/L. The EPA has proposed a MCL of 300 pCi/L, which has not been finalized.

Radon is a radioactive gas that you can't see, taste, or smell and is a known carcinogen. Compared to radon entering the home through soil, radon entering the home through tap water will, in most cases, be a small source of radon in indoor air. Breathing air containing radon can lead to lung cancer and/or drinking water containing radon also may cause increased risk of stomach cancer. If

you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that aren't too costly. For additional information call EPA's Radon Hotline (1-800-577-2366) or, access the EPA website at www.epa.gov/radon/radon-hotlines-and-information-resources

Arsenic: The arsenic readings in 2015 at the Nevada, Parkwater, and Ray Street wells were 2.49 ppb, 3.30 and 4.40 ppb respectively. The Maximum Contaminant Level (MCL) for Arsenic is 10 ppb.

City of Spokane drinking water currently meets EPA's revised drinking water standard for arsenic. However, it does contain low levels of arsenic. There is a small chance that some people who drink water containing low levels of arsenic for many years could develop circulatory disease, cancer, or other health problems. Most types of cancer and circulatory diseases are due to factors other than exposure to arsenic. EPA's standard balances the current understanding of arsenic's health effects against the cost of removing arsenic from drinking water. Information on arsenic in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at safewater.zendesk.com/hc/en-us/sections/202366558-Arsenic

Lead: During 2015, the City tested 58 at-risk residences for lead. The single highest result was 13.5 ppb. This result for lead is below the 15 ppb Action Level for lead**.** The lead results, based on City in-home sampling, also continue to qualify our water system as having "Optimized Corrosion Control". Source water is analyzed for lead concurrent with the in-home testing. In 2015 the maximum concentration in the source water testing of all the wells for lead was 0.16 ppb.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Spokane is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your drinking water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline, 1-800-426-4791 or at www.epa.gov/your-drinking-water/basic-information-about-lead-drinking-water.

Citizens can check what their service line is made of on line. Go to maps.spokanecity.org/. Turn on the "water" layer under utilities; search for an address, click on the blue line that leads to the property; it will say it's copper or galvanized or lead. Some service lines are listed as unknown. For more information on service line materials and options for lead service line replacement please call the Water Department at (509) 625-7800.

CITY OF SPOKANE'S SYSTEM

All of the City of Spokane's drinking water comes from the Spokane Valley-Rathdrum Prairie (SVRP) Aquifer - designated a "sole source" aquifer in 1978. The Spokane Aquifer (that portion of the SVRP aquifer lying within Washington State) and the Spokane River exchange water. The rates and locations of exchange are the subject of continued study.

Due to the porous nature of the ground surface and the number of potential contaminant sources, the possibility of contaminating the aquifer exists if good "housekeeping" measures are not followed for all activity over and adjacent to the aquifer. In order to safeguard water quality, the City, in coordination with other stakeholders, is currently implementing a Wellhead Protection Program. This program endeavors to inform the public about the Spokane Valley-Rathdrum Prairie Aquifer, and about appropriate disposal mechanisms for dangerous and/or critical materials that are generated in the Aquifer Sensitive Area. The program is advocating land use regulations to help protect drinking water wells from contamination.

For additional information regarding the City of Spokane's Drinking Water or related issues, you can call:

City of Spokane Water & Hydroelectric Services	509-625-7800
City of Spokane Environmental Programs	509-625-6570

The Mayor recommends Water and Hydroelectric Services policy and rates to the Spokane City Council.
The Council meets most Mondays at 6:00 p.m. in the Council Chambers at
Spokane City Hall (808 W. Spokane Falls Blvd., Spokane, WA).

Appendix I - Water Use Efficiency compliance data

15-Mar-2016

Distribution System Leakage (DSL)

	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
Service Meter Reading-Single Family, gallons	10,090,207,000	9,024,016,000	8,481,889,000	8,340,082,788	8,004,190,202	8,317,983,390	9,649,430,384	8,624,299,376	8,992,947,286	8,998,900,409
Service Meter Reading-Multi Family, gallons	2,527,677,000	2,312,170,000	2,281,194,000	2,209,050,964	2,123,911,196	2,156,077,200	2,360,823,156	3,065,246,404	3,534,713,255	3,449,781,864
Service Meter Reading-Commercial/Industrial, gallons	4,327,685,000	4,020,022,000	3,934,823,000	3,810,799,262	3,712,856,606	3,896,950,147	4,217,716,655	5,565,693,716	6,218,000,969	6,260,652,288
Service Meter Reading-Government, gallons	1,739,225,000	1,481,666,000	1,412,515,000	1,450,574,304	1,340,906,695	1,325,244,765	1,643,114,508	1,587,638,976	2,061,287,117	2,059,728,405
Purchased, permit ***	1,166,431,000	1,128,395,000	646,646,000	5,349,696						
Emergency Interties, gallons	**	**	**	**	**	* *	* *	* *	* *	* *
Wholesale Amount Sold, gallons	194,544,000	56,198,736	79,169,816	231,569,580	165,106,788	108,846,716	95,993,084	75,146,324	222,581,612	159,655,364
Non-Revenue Accounted for Water, gallons (estimate) *	645,731,000	583,677,000	580,548,000	784,644,731	1,189,855,000	1,064,380,000	1,064,380,000	209,440,000	209,440,000	209,440,000
Total Authorized Consumption, gallons *	20,691,500,000	18,606,144,736	17,416,784,816	16,832,071,326	16,536,826,487	16,869,482,218	19,031,457,788	19,127,464,796	21,238,970,240	21,138,158,330
Total Authorized Consumption (gal. X1000) (AC) *	20,691,500	18,606,145	17,416,785	16,832,071	16,536,826	16,869,482	19,031,458	19,127,465	21,238,970	21,138,158
Total Production (gal. X1000) (TP)	23,898,143	22,638,600	21,203,902	21,022,982	20,702,520	20,608,800	22,402,716	21,222,058	23,066,258	23,735,049
Distribution System Leakage (DSL), volume (gal. X1000)	3,206,643	4,032,455	3,787,117	4,190,911	4,165,694	3,739,318	3,371,258	2,094,593	1,827,288	2,596,891
Distribution System Leakage (DSL), percent	13.4%	17.8%	17.9%	19.9%	20.1%	18.1%	15.0%	9.9%	7.9%	10.9%

* Total Authorized Consumption includes Non-Revenue Accounted for Water, which is consistent with Water Use Efficiency Rule guidance (see definition at right). This is different from past practice in previous Water System Plans. The value for Non-Revenue Accounted for Water (estimated, non-metered) was reassessed in 2009, 2012, and 2015

WAC 246-290-010 Definitions. - "Authorized consumption" means the volume of metered and unmetered water used for municipal water supply purposes by consumers, the purveyor, and others authorized to do so by the purveyor, including, but not limited to, fire fighting and training, flushing of mains and sewers, street cleaning, and watering of parks and landscapes. These volumes may be billed or unbilled.

* * Emergency intertie volumes are combined with wholesale amount sold

*** Prior to 2012, this was included in non-revenue accounted for water. Water use by selected permit holders was monitored with hydrant meters in 2013 and the estimated use revised.

Method for calculating the Distribution System Loss (DSL)

Calculating Percent DSL

To calculate percent DSL, use the following equation:

Percent DSL = [(TP - AC) / (TP)] x 100

Where:

DSL = Percent (%) of distribution system loss

TP = Total water produced and purchased

AC = Authorized consumption

Calculating Volume DSL

To calculate volume DSL, use the following equation:

Volume DSL = TP - AC

Report volume DSL in millions of gallons or gallons

Appendix II - Tests Run on City of Spokane Water

15-Mar-2016

FIELD TESTS

* Chlorine Demand
* Chlorine, Free Residual
Chlorine, Total Residual
Conductivity
Hardness
pH
Temperature
Turbidity

RADIONUCLIDES

Alpha emitters (gross)
* Beta/photon emitters (gross)
Radon 222
Radium 226
Radium 228

MICROBES

BACTERIA

Total Coliform - Before & After Treatment
Fecal Coliform - Before & After Treatment
Heterotrophic Plate Count - Raw water
* Aeromonas sp.

PROTOZOA

* Cryptosporidium
* Giardia
* Microscopic Particle Analysis

* VIRUS

* Coliphage, Male Specific and - Somatic: EPA meth. 1601

GENERAL INORGANICS

* Asbestos
Color
Conductivity
* Hardness, Calcium
* Hardness, Magnesium
Hardness, Total
Total Alkalinity
Total Dissolved Solids
Turbidity
* UV254

INORGANIC IONS

Ammonia Nitrogen
* Bromide
Chloride
Cyanide
Fluoride
Nitrate Nitrogen
Nitrite Nitrogen
1 Phosphorus
Sulfate

INORGANIC METALS

Aluminum
Antimony
Arsenic
Barium
Beryllium
Cadmium
Calcium
Chromium
Copper
Iron
Lead
Magnesium
Manganese
Mercury
Nickel
Selenium
Silver
Sodium
Thallium
Zinc

VOLATILE ORGANICS

Benzene
benzene, 1,2,3-Trichloro-
benzene, 1,2,4-Trichloro-
benzene, 1,2,4-Trimethyl-
benzene, 1,3,5-Trimethyl-
benzene, Bromo-
benzene, Butyl-
benzene, Chloro-
benzene, Ethyl
benzene, Isopropyl-
benzene, m-Dichloro-
benzene, o-Dichloro-
benzene, p-Dichloro-
benzene, Propyl-
benzene, sec-Butyl-
benzene, tert-Butyl-
Butadiene, Hexachloro-
Chloride, Carbon Tetra-
Chloride, Methylene (aka methane, dichloro)
Chloride, Vinyl
Chloroform (Freon 20)
ethane, 1,1,1,2-Tetrachloro-
ethane, 1,1,1-Trichloro-
ethane, 1,1,2,2-Tetrachloro-
ethane, 1,1,2-Trichloro-
ethane, 1,1-Dichloro-
ethane, 1,2-Dichloro-
ethane, Chloro-
ethene, 1,1-Dichloro-
ethene, cis-1,2-Dichloro-
ethene, Tetrachloro-
ethene, trans-1,2-Dichloro-
ethene, Trichloro-
methane, Bromo-
methane, Bromochloro-
methane, Chloro-
methane, Dibromo-
methane, Dichlorodifluoro-
methane, Trichlorofluoro- (Freon 11)
Naphthalene
2 propane, 1,2,3-Trichloro-
propane, 1,2-Dichloro-
propane, 1,3-Dichloro-
propane, 2,2-Dichloro-
propene, 1,1-Dichloro-
propene, cis-1,3-Dichloro-
propene, trans-1,3-Dichloro-
Styrene
Toluene
toluene, o-Chloro-
toluene, p-Chloro-
toluene, p-Isopropyl-
Xylene, m&p-
Xylene, o-
Xylene, total

1 - Typically run by the City's Wastewater Laboratory only
2 - conducted during 2002-2003 for the Unregulated Contaminant Monitoring Rule.

* Test was not run in 2015 but has been run in previous years

Appendix II (continued)
GENERAL ORGANICS

* Total Organic Carbon
* Total Organic Halides

Maximum Total Trihalomethane Potential (MTTP)

* MTTP - Bromodichloromethane
* MTTP - Bromoform
* MTTP - Chloroform
* MTTP - Dibromochloromethane
ether, Methyl tert-Butyl (MtBE)
2 Benzene, Nitro
2 toluene, 2,6-Dinitro-
2 DCPA Acid Mono-acid degradate
2 DCPA Acid Di-Acid degradate
2 Perchlorate
2 Acetochlor
Polybrominated Diphenyl ether (PBDE) - (limited list of congeners)

DISINFECTION BY-PRODUCTS

TRIHALOMETHANES

Chloroform
Bromoform
methane, Dibromochloro-
methane, Bromodichloro-
Total Trihalomethanes

FIVE HALOACETIC ACIDS (HAA5)

acetic Acid, Monochloro-
acetic Acid, Dichloro-
acetic Acid, Trichloro-
acetic Acid, Monobromo-
acetic Acid, Dibromo-

OTHER DISINFECTION BY-PRODUCTS

acetic Acid, Bromochloro-
* Hydrate, Chloral
* nitrile, Bromochloroaceto-
* nitrile, Dibromoaceto-
* nitrile, Dichloroaceto-
* nitrile, Trichloroaceto-
* pictrin, Chloro-
* propanone, 1,1,1-Trichloro-
* propanone, 1,1-Dichloro-

SYNTHETIC ORGANICS

2-Chloronaphthalene
2-Methylnapthalene
4-bromophenyl phenyl ether
4-Chlorophenyl phenyl ether
5-Hydroxydicamba
Acenaphthene
Acenaphthylene
Acifluorfen
Adipate, Di-(2-ethylhexyl)
Alachlor
Aldicarb
Aldicarb Sulfone
Aldicarb Sulfoxide
Aldrin
Ametryn
Amtryne
Anthracene
Anthracene, Benz(a)-
Anthracene, Dibenz(a,h)-
Arochlor 1016
Arochlor 1221
Arochlor 1232
Arochlor 1242
Arochlor 1248
Arochlor 1254
Arochlor 1260
Atraton
Atrazine
Baygon
Benefin
Bentazon
benzene, Hexachloro-
benzoic acid, 3,5-Dichloro-
BHC (alpha)
BHC (beta)
BHC (delta)
Bromacil
Butachlor
Butylate
* Caffeine
Carbaryl
Carboxin
Chloramben
Chlordane
Chlordane, alpha-
Chlordane, gamma-
Chlorpropham
Chrysene
Cyanazine
Cycloate
D, 2,4-
Dalapon
DB, 2,4-
DCPA (Dacthal)
DDD, 4,4-
DDE, 4,4-
DDT, 4,4-
Diazinon
Dibenzofuran
Dicamba
Dichlorprop
Dichlorvos
Dieldrin
Diesel (as straight alka chain)
Dimethoate
Dinoseb
Diphenylamine
Diquat
Disulfoton
Disulfoton sulfone
Disulfoton sulfoxide (A)
Endosulfan I
Endosulfan II
Endosulfan sulfate
Endothall
Endrin
Endrin aldehyde
EPTC
Ethoprop
Ethylene Dibromide
Fenamiphos
Fenarimol
Fluoranthene
Fluoranthene, Benzo(b)
Fluoranthene, Benzo(k)
Fluorene
Fluridone
furan, 3-Hydroxycarbo-
furan, Carbo-
Glyphosate
Heptachlor
Heptachlor Epoxide
* Heptachlor Epoxide "A"
* Heptachlor Epoxide "B"
Hexachloroethane
Hexazinone
* Hydrate, Chloral
Isodrin
Isophorone
Isopropalin
Isosafrole
Lindane
Malathion
Merphos
Methiocarb
Methomyl
Methoxychlor
Methyl paraoxon
Methylparathion
Metolachlor
Metribuzin
Mevinphos
MGK-264
Molinate
N-Nitrosodi-N-propylamine
Napropamide
Nonachlor, cis-
Nonachlor, trans-
Norflurazon
Oxadiazon
Oxamyl
Oxyfluorfen
* Parathion
Pendamethalin
Pentachloronitrobenzene
* pentadiene, Hexachlorocyclo-
Perylene, Benzo(g,h,i)
Phenanthrene
phenol, 2,4,6-Trichloro
phenol, 2,4-Dichloro
phenol, 4-Chloro-3-methyl
* phenol, 4-Nitro-
phenol, Pentachloro-
phenyls, Polychlorinated Bi- (PCB, total Arochlor)
phthalate, Butylbenzyl-
phthalate, Di-(2-Ethylhexyl)-
phthalate, Di-n-Butyl-
phthalate, Diethyl
phthalate, Dimethyl-
Picloram
Profuralin
Prometon
* Prometryn
Propachlor
propane, Dibromochloro- (DBCP)
Pyrene
pyrene, Benzo a-
Pyrene, Indeno(1,2,3,c,d)
Safrole
Simazine
T, 2,4,5-
Terbacil
Terbuphos
* Thiobencarb
2 toluene, 2,4-Dinitro-
Toxaphene
TP, 2,4,5-
Trifluralin
Vernolate

1 - Typically run by the City's Wastewater Laboratory only
2 - conducted during 2002-2003 for the Unregulated Contaminant Monitoring Rule.

* Test was not run in 2015 but has been run in previous years

Appendix II (continued)

XENOBIOTICS (screening at Parkwater & Grace, 2008)

METHOD 1694: PHARMACEUTICALS AND PERSONAL CARE PRODUCTS BY

* HPLC/MS/MS

List 1

(Acid extraction, positive ESI)

Acetaminophen
Ampicillin 1
Azithromycin
Caffeine
Carbadox
Carbamazepine
Cefotaxime
Ciprofloxacin
Clarithromycin
Clinafloxacin
Cloxacillin
Codeine
Cotinine
Dehydronifedipine
Digoxigenin
Digoxin
Diltiazem
1,7-Dimethylxanthine
Diphenhydramine
Enrofloxacin
Erythromycin hydrate
Flumequine
Fluoxetine
Lincomycin
Lomefloxacin
Miconazole
Norfloxacin
Norgestimate
Ofloxacin
Ormetoprim
Oxacillin
Oxolinic acid
Penicillin G
Penicillin V
Roxithromycin
Sarafloxacin
Sulfachloropyridazine
Sulfadiazine
Sulfadimethoxine
Sulfamerazine
Sulfamethazine
Sulfamethizole
Sulfamethoxazole
Sulfanilamide
Sulfathiazole
Thiabendazole
Trimethoprim
Tylosin
Virginiamycin

List 2

(Tetracyclines, positive ESI)

Anhydrochlortetracycline (ACTC)
Anhydrotetracycline (ATC)
Chlortetracycline (CTC)
Demeclocycline
Doxycycline
4-Epianhydrochlortetracycline (EACTC)
4-Epianhydrotetracycline (EATC)
4-Epichlortetracycline (ECTC)
4-Epioxytetracycline (EOTC)
4-Epitetracycline (ETC)
Isochlortetracycline (ICTC)
Minocycline
Oxytetracycline (OTC)
Tetracycline (TC)

List 3

(Acid extraction, negative ESI)

Gemfibrozil
Ibuprofen
Naproxen
Triclocarban
Triclosan
Warfarin

List 4

(Base extraction, positive ESI)

Albuterol
Cimetidine
Metformin
Ranitidine

METHOD 1698: STERIODS AND

* HORMONES BY HRGC/HRMS

Native Analyte

Desogestrel
17a-Estradiol
Estrone
Androstenone
Androstenedione
Equilin
17b-Estradiol
Testosterone
Equilenin
Mestranol
Norethindrone
17a-Dihydroequilin-bis
Progesterone
17a-Ethynyl-Estradiol
Norgestrel
Estriol-tris
Coprostanol
Epicoprostanol
Cholesterol
Cholestanol
Desmosterol
Ergosterol
Campesterol
Stigmasterol
b-Sitosterol
b-Stigmastanol
b-Estradiol-3-Benzoate

1 - Typically run by the City's Wastewater Laboratory only
2 - conducted during 2002-2003 for the Unregulated Contaminant Monitoring Rule.

* Test was not run in 2015 but has been run in previous years

Appendix II (continued)

* **Unregulated Contaminant Monitoring Rule - Round 2 (UCMR 2) 2009 - 2010**

List 1 Contaminants

Dimethoate
Terbufos sulfone
2,2',4,4' - tetrabromodiphenyl ether (BDE-47)
2,2',4,4',5 - pentabromodiphenyl ether (BDE-99)
2,2'4,4',5,5' - hexabromobiphenyl (HBB)
2,2',4,4',5,5' - hexabromodiphenyl ether (BDE-153)
2,2'4,4'',6 - pentabromodiphenyl ether (BDE-100)
1,3-dinitrobenzene
2,4,6-trinitrotoluene (TNT)
Hexahydro-1,3,5 -trinitro - 1,3,5 -triazine (RDX)

List 2 Contaminants

Acetochlor
Alachlor
Metolachlor
Acetochlor ethane sulfonic acid (ESA)
Acetochlor oxanilic acid (OA)
Alachlor ethane sulfonic acid (ESA)
Alachlor oxanilic acid (OA)
Metolachlor ethane sulfonic acid (ESA)
Metolachlor oxanilic acid (OA)
N-nitroso-diethylamine (NDEA)
N-nitroso-dimethylamine (NDMA)
N-nitroso-di-n-butylamine (NDBA)
N-nitroso-di-n-propylamine (NDPA)
N-nitroso-methylethylamine (NMEA)
N-nitroso-pyrrolidine (NPYR)

* **Unregulated Contaminant Monitoring Rule - Round 3 (UCMR 3) 2015**

List 1 Contaminants

1,4-dioxane
molybdenum
cobalt
vandium
strontium
chromiun-6 (exavalent chromium)
1,2,3-trichloropropane
1,3-butadiene
chloromethane (methly chloride)
1,1-dichloroethane
bromochlorlmethane (Halon 1011)
bromomethane (methly bromide)
chlorodifluoromethane (HCFC-22)
chlorate
perfluorooctanesulfonic acid (PFOS)
perfluorooctonic acid (PFOA)
perfluorononanoic acid (PFNA)
perfluorohexanesulfonic acid (PFHxS)
perfluoroheptanoic acid (PFHpA)
perfluorobutanesulfonic acid (PFBS)

List 2 Contaminants

17-β-estradiol
17-α-ethynylestradiol
estriol
equilin
estrone
testosterone
4-androstene-3,17-dione

1 - Typically run by the City's Wastewater Laboratory only
2 - conducted during 2002-2003 for the Unregulated Contaminant Monitoring Rule.

* Test was not run in 2015 but has been run in previous years

Appendix III - Annual Testing Summary - Tests Run on City of Spokane Water 15-Mar-2016

2015 DRINKING WATER SOURCE - COMPLETED QUARTERLY MONITORING

	SOURCE #	8	6	5	1	3	4	2
	WELL	CENTRAL	GRACE	HOFFMAN	NEVADA	PARKWATER	RAY STREET	WELL ELECTRIC
BACTERIA								
COLIFORM - RAW SOURCE *								
Total Coliform -number of samples per year / number of positive detections		7 / 0	11 / 0	8 / 0	10 / 0	12 / 0	12 / 0	32 / 0
Fecal Coliform - number of samples per year / number of positive detections		7 / 0	11 / 0	8 / 0	10 / 0	12 / 0	12 / 0	32 / 0
HETEROTROPHIC PLATE COUNT - RAW SOURCE *								
number of samples per year / greatest result value		6 / 46	11 / 1	8 / 681	10 / 1	12 / 2	12 / 1	24 / 6
* All operating wells are typically sampled once per month								
INORGANIC								
FULL LIST- ACCREDITED LAB (phase II & V included)	3rd Qtr - Jul				completed-see App. IV	completed-see App. IV	completed-see App. IV	
NITRATE	1st Qtr - Jan						3.29	
	2nd Qtr - April						3.08	
	3rd Qtr - Jul	0.9	0.815	1.32	0.83	1.28	2.15	1.22
	4th Qtr - Oct						3.09	
NITRATE + NITRITE - RPWRF LAB	1st Qtr - Jan						3.52	
	2nd Qtr - April						3.68	
	3rd Qtr - Jul	1.01	0.94	1.57	0.95	1.50	2.47	1.45
	4th Qtr - Oct						3.60	
ORGANIC								
VOLATILES	1st Qtr - Jan					no detections	no detections	
(including TRIHALOMETHANES)	2nd Qtr - April							
	3rd Qtr - Jul							no detections
	4th Qtr - Oct							
SYNTHETIC ORGANICS (515.1, 525.2, 531.1)	2nd Qtr - April				no detections			
	3rd Qtr - Jul				no detections	no detections	no detections	no detections
	4th Qtr - Oct					no detections	no detections	no detections
RADIOACTIVE CONTAMINANTS								
Radium 228 - pCi/L,	3rd Qtr - Jul		< 0.5					< 0.5
Gross Alpha - pCi/L	3rd Qtr - Jul		< 1.0					1.47
Radon - pCi/L	3rd Qtr - Jul		385					424
UNITS ARE AS REPORTED, ppb FOR ORGANICS, ppm FOR INORGANICS, except where noted.								

2014 DRINKING WATER SOURCE - COMPLETED QUARTERLY MONITORING

SOURCE #	8	6	5	1	3	4	2
WELL	CENTRAL	GRACE	HOFFMAN	NEVADA	PARKWATER	RAY	WELL ELECTRIC
BACTERIA								
COLIFORM - RAW SOURCE *								
Total Coliform -number of samples per year / number of positive detections		8 / 0	8 / 0	4 / 0	5 / 0	12 / 0	10 / 0	27 / 0
Fecal Coliform - number of samples per year / number of positive detections		8 / 0	8 / 0	4 / 0	5 / 0	12 / 0	10 / 0	27 / 0
HETEROTROPHIC PLATE COUNT - RAW SOURCE *								
number of samples per year / greatest result value		8 / 1	8 / 1	4 / 22	5 / 0	12 / 1	10 / 1	21 / 10
* All operating wells are typically sampled once per month								
INORGANIC								
FULL LIST- ACCREDITED LAB (phase II & V included)	3rd Qtr - Jul		completed-see App. IV	completed-see App. IV				
NITRATE	1st Qtr - Jan						3.15	
	2nd Qtr - April						3.07	
	3rd Qtr - Jul	0.9	0.683	1.24	0.80	1.55	2.82	1.37
	4th Qtr - Oct						3.23	
NITRATE + NITRITE - RPWRF LAB	1st Qtr - Jan						3.42	
	2nd Qtr - April						3.08	
	3rd Qtr - Jul	0.93	0.72	1.38	0.86	1.68	3.17	1.58
	4th Qtr - Oct						3.54	
ORGANIC								
VOLATILES	1st Qtr - Jan	no detections						
(including TRIHALOMETHANES)	2nd Qtr - April							
	3rd Qtr - Jul				no detections			
	4th Qtr - Oct							
SYNTHETIC ORGANICS (515.1, 525.2, 531.1)	2nd Qtr - April							
	3rd Qtr - Jul	no detections	no detections	no detections				
	4th Qtr - Oct	no detections						
	4th Qtr - Dec		no detections					
RADIOACTIVE CONTAMINANTS								
Radium 228 - pCi/L,	2nd Qtr - April					0.52	1.04	
Gross Alpha - pCi/L	2nd Qtr - April					2.10	<1	
Radon - pCi/L	2nd Qtr - April					441	443	

UNITS ARE AS REPORTED, ppb FOR ORGANICS, ppm FOR INORGANICS, except where noted.

2013 DRINKING WATER SOURCE - COMPLETED QUARTERLY MONITORING

	SOURCE #	8	6	5	1	3	4	2
	WELL	CENTRAL	GRACE	HOFFMAN	NEVADA	PARKWATER	RAY	WELL ELECTRIC
BACTERIA								
COLIFORM - RAW SOURCE *								
Total Coliform -number of samples per year / number of positive detections		7 / 0	9 / 0	5 / 0	8 / 0	12 / 0	8 / 0	36/ 2
Fecal Coliform - number of samples per year / number of positive detections		7 / 0	9 / 0	5 / 0	8 / 0	12 / 0	8 / 0	36/ 0
HETEROTROPHIC PLATE COUNT - RAW SOURCE *								
number of samples per year / greatest result value		7/ 1.5	9 / 0.5	5 / 195.5	8 / 0	12 / 0.5	8 / 2	24 / 2.5
* All operating wells are typically sampled once per month								
INORGANIC								
FULL LIST- ACCREDITED LAB (phase II & V included)	3rd Qtr - Jul	completed-see App. IV						completed-see App. IV
NITRATE	1st Qtr - Jan						3.44	
	2nd Qtr - April						3.335	
	3rd Qtr - Jul	0.869	0.719	1.26	0.80	1.29	2.99	1.36
	4th Qtr - Oct						3.59	
NITRATE + NITRITE - RPWRF LAB	1st Qtr - Jan						3.90	
	2nd Qtr - April						3.94	
	3rd Qtr - Jul	1.00	0.87	1.37	0.91	1.59	3.67	1.56
	4th Qtr - Oct						3.81	
ORGANIC								
VOLATILES	1st Qtr - Jan							
(including TRIHALOMETHANES)	2nd Qtr - April							
	3rd Qtr - Jul		no detections	no detections				
	4th Qtr - Oct							
RADIOACTIVE CONTAMINANTS								
Radium 226- pCi/L	2nd Qtr - April	< 0.2			< 0.2			
Radium 228 - pCi/L,	2nd Qtr - April	< 0.5			1.28			
Radium 228 - pCi/L	3rd Qtr - July			< 0.5				
Gross Alpha - pCi/L	3rd Qtr - July	1		1.51	< 1	1.51		
Radon - pCi/L	2nd Qtr - July	515			542			
Radon - pCi/L	3rd Qtr - July			521				
UNITS ARE AS REPORTED, ppb FOR ORGANICS, ppm FOR INORGANICS, except where noted.								

2012 DRINKING WATER SOURCE - COMPLETED QUARTERLY MONITORING

	SOURCE #	8	6	5	1	3	4	2
	WELL	CENTRAL	GRACE	HOFFMAN	NEVADA	PARKWATER	RAY	WELL ELECTRIC
BACTERIA								
COLIFORM - RAW SOURCE *								
Total Coliform -number of samples per year / greatest result		6 / <1	7 / <1	4 / <1	7 / <1	11 / <1	10 / <1	51 / <1
Fecal Coliform - number of samples per year / greatest result		6 / <1	7 / <1	4 / <1	7 / <1	11 / <1	10 / <1	51 / <1
HETEROTROPHIC PLATE COUNT - RAW SOURCE *		6 / <1	7 / <1	4 / 203	7 / 2	11 / 18	10 / 107	22 / 84
number of samples per year / greatest result value								
* All operating wells are typically sampled once per month								
INORGANIC								
FULL LIST- CERTIFIED LAB (phase II & V included)	3rd Qtr - Jul				completed-see App. IV	completed-see App. IV	completed-see App. IV	
NITRATE	1st Qtr - Jan						3.08	
	2nd Qtr - April						3.15	
	3rd Qtr - Jul	0.92	0.76	2.2	0.80	1.35	2.51	1.49
	4th Qtr - Oct						3.68	
NITRATE + NITRITE - RPWRF LAB	1st Qtr - Jan						3.30	
	2nd Qtr - April						3.76	
	3rd Qtr - Jul	0.99	0.85	1.65	0.86	1.51	2.95	1.69
	4th Qtr - Oct						3.69	
ORGANIC								
VOLATILES	1st Qtr - Jan					no detections	no detections	
(including TRIHALOMETHANES)	2nd Qtr - April							
	3rd Qtr - Jul							no detections
	4th Qtr - Oct							
SYNTHETIC ORGANICS (515.1, 525.2, 531.1)	2nd Qtr - April				no detections			
	3rd Qtr - Jul				no detections	no detections	no detections	no detections
	4th Qtr - Oct					no detections	no detections	no detections
RADIOACTIVE CONTAMINANTS								
Radium 228 - pCi/L, Gross Alpha - pCi/L	3rd Qtr - July		0.57, < 1.0			0.68		0.25, 2.3
Radium 226- pCi/L	3rd Qtr - July					0.23		
UNITS ARE AS REPORTED, ppb FOR ORGANICS, ppm FOR INORGANICS, except where noted.								

2011 DRINKING WATER SOURCE - COMPLETED QUARTERLY MONITORING

	SOURCE #	8	6	5	1	3	4	2
	WELL	CENTRAL	GRACE	HOFFMAN	NEVADA	PARKWATER	RAY	WELL ELECTRIC
BACTERIA								
COLIFORM - RAW SOURCE *								
Total Coliform -number of samples per year / greatest result		10 / <1	9 / <1	3 / <1	10 / <1	11 / <1	12 / <1	33 / <1
Fecal Coliform - number of samples per year / greatest result		10 / <1	9 / <1	3 / <1	10 / <1	11 / <1	12 / <1	33 / <1
HETEROTROPHIC PLATE COUNT - RAW SOURCE *		10 / <1	9 / <1	3 / 806 **	10 / <1	12 / 2	12 / 1	24 / 10
number of samples per year / greatest result value								
INORGANIC								
FULL LIST- CERTIFIED LAB (phase II & V included)	3rd Qtr - Jul		completed-see App. IV	completed-see App. IV				
NITRATE	1st Qtr - Jan						3.33	
	2nd Qtr - April						3.24	
	3rd Qtr - Jul	0.897	0.766	2.48	0.952	1.56	2.54	1.54
	4th Qtr - Oct						3.22	
NITRATE + NITRITE - RPWRF LAB	1st Qtr - Jan						3.53	
	2nd Qtr - April						3.21	
	3rd Qtr - Jul	0.464	0.241	1.76	0.409	0.950	1.76	0.823
	4th Qtr - Oct						3.24	
ORGANIC								
VOLATILES	1st Qtr - Jan	no detections						
(including TRIHALOMETHANES)	2nd Qtr - April							
	3rd Qtr - Jul		no detections	no detections	no detections			
	4th Qtr - Oct							
SYNTHETIC ORGANICS (515.1, 525.2, 531.1)	2nd Qtr - April							
	3rd Qtr - Jul	no detections	no detections	no detections				
	4th Qtr - Oct	no detections	no detections	no detections				
RADIOACTIVE CONTAMINANTS								
Radium 228 - pCi/L, Gross Alpha - pCi/L	2nd Qtr - April					2.51,< 1.0	0.95, 1.77	

* All operating wells are typically sampled once per month

** This result occurred when the well was not in production, and does not characterize source water. The greatest HPC count in production was 24.

UNITS ARE AS REPORTED, ppb FOR ORGANICS, ppm FOR INORGANICS, except where noted.

CITY OF SPOKANE 15-Mar-2016

DRINKING WATER INORGANICS SUMMARY

MOST RECENT WELL STATION MONITORING ANALYTICAL RESULTS

ACCREDITED LABORATORIES

								Maximum Contaminant Levels		CURRENT DATA SUMMARY			
WELL STATION	CENTRAL	ELECTRIC	GRACE	HOFFMAN	NEVADA	PARKWATER	RAY	MCL's**	Goals MCLG's	MEAN	MAX	MIN	COUNT
SAMPLING DATE	30-Jul-2013	30-Jul-2013	29-Jul-2014	29-Jul-2014	28-Jul-2015	28-Jul-2015	28-Jul-2015						
LABORATORY	(Anatek)	(Anatek)	(Anatek)	(Anatek)	(Anatek)	(Anatek)	(Anatek)						
ALKALINITY	not tested	not tested	not tested	not tested	148	145	152	unregulated		148	152	145	3
HARDNESS (as CaCO3) #	131	131	96	136	108	160	168	unregulated		133	168	96	7
CONDUCTIVITY (µmos/cm)	256	284	214	305	234	340	384	700 t		288	384	214	7
TURBIDITY (NTU)	< 0.100	< 0.100	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	1 t			< 0.1	< 0.1	7
COLOR (color units)	< 5.00	< 5.00	< 5	< 5	< 5.00	< 5.00	< 5.00	15 s			< 5.00	< 5.00	7
CHLORIDE	3.67	3.91	3.66	5.24	3.67	5.59	12.8	250 s		5.51	12.8	3.66	7
TOT. DISSOLVED SOLIDS	140	148	136	167	132	191	204	500 s		160	204	132	7
MAGNESIUM	14.1	14.0	8.3	15.1	9.15	16.4	13.6	unregulated		13.0	16.4	8.3	7
CALCIUM	27.1	31.8	23	29	25.6	34.5	42.7	unregulated		30.5	42.7	23	7
ORTHO-PHOSPHATE	0.02	< 0.01	< 0.01	0.02	not tested	not tested	not tested	unregulated		0.02	0.02	< 0.010	4
AMMONIA	< 0.030	< 0.030	not tested	not tested	< 0.05	< 0.05	< 0.05	unregulated			< 0.05	< 0.030	7
CYANIDE	< 0.0100	< 0.0100	< 0.01	< 0.01	< 0.05	< 0.05	< 0.05	0.2	0.2		< 0.05	< 0.0100	7
FLUORIDE	< 0.5	< 0.5	< 0.01	< 0.01	< 0.2	< 0.2	< 0.2	2 s	4		< 0.5	< 0.01	7
NITRATE (NO3-N)	0.87	1.36	0.68	1.24	0.825	1.28	2.15	10	10	1.20	2.15	0.68	7
NITRITE (NO2-N)	< 0.050	< 0.050	< 0.01	< 0.01	< 0.1	< 0.1	< 0.1	1	1		< 0.1	< 0.01	7
SULPHATE	11.5	11	6.68	11.5	7.92	14.0	11.5	250 s	400	10.6	14.0	6.7	7
ALUMINUM	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01	0.05 - 0.2 s			< 0.05	< 0.05	7
ANTIMONY	< 0.00300	< 0.00300	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.006	0.006		< 0.00300	< 0.001	7
ARSENIC	0.0035	0.00475	0.00255	0.003	0.00249	0.00330	0.0044	0.010	0	0.0034	0.00475	0.00249	7
BARIUM	0.0232	0.0201	0.0164	0.0255	0.0188	0.0262	0.0451	2	2	0.0250	0.0451	0.0164	7
BERYLLIUM	< 0.000800	< 0.000800	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	0.004	0.004		< 0.0008	< 0.0003	7
CADMIUM	< 0.00200	< 0.00200	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.005	0.005		< 0.001	< 0.000200	7
CHROMIUM	< 0.0060	< 0.0060	< 0.001	< 0.001	< 0.001	0.00128	0.00131	0.1	0.1		< 0.0060	< 0.001	7
COPPER	0.0083	< 0.010	0.00445	0.00458	0.00591	< 0.001	0.00566	TT	1.3	0.0058	0.0083	0.00445	7
IRON	< 0.060	< 0.060	< 0.01	< 0.01	< 0.02	< 0.02	< 0.02	0.3 s		#DIV/0!	0.019	< 0.01	7
LEAD	< 0.00100	< 0.00100	< 0.00100	< 0.00100	< 0.001	< 0.001	< 0.001	TT	0	#DIV/0!	0	0	7
MANGANESE	< 0.01	< 0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.05 s			< 0.01	< 0.001	7
MERCURY	0.0002	0.00022	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.002	0.002	0.0002	0.00022	< 0.0001	7
NICKEL	< 0.005	0.00133	< 0.001	0.00114	0.00104	0.00111	0.00134	0.1 * * *	0.1 * * *	0.00119	0.00134	< 0.001	7
SELENIUM	< 0.002	< 0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.05	0.05		< 0.002	< 0.001	7
SILVER	< 0.1	< 0.1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.1 s			< 0.1	< 0.001	7
SODIUM	3.11	3.84	2.48	3.87	2.64	4.05	7.07	unregulated		3.9	7.07	2.48	7
THALLIUM	< 0.00100	< 0.00100	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.002	0.0005		< 0.00100	< 0.001	7
ZINC	0.0283	0.00537	0.0116	0.0156	0.00204	0.00997	0.0143	5 s		0.01245	0.0283	0.00204	7

RESULTS ARE IN mg/L EXCEPT WHERE OTHERWISE NOTED

* TT = Treatment Technique; s = Secondary MCL; t = State only MCL

* * Aluminum is a secondary regulated contaminant

* * * The MCL and MCLG for Nickel were remanded on February 9, 1995, monitoring requirements still in effect

divide by 17.1 to convert to grains per gallon

Appendix V - Disinfection Byproducts - Distribution System

Distribution System Sampling for Disinfection Byproducts

Reported 15-Mar-2016

Location	Mallen Tank	Mallen Tank	BPA Transmission Easement	BPA Transmission Easement	Mallen Tank	Mallen Tank	BPA Transmission Easement	BPA Transmission Easement	Mallen Tank	Mallen Tank	MAXIMUM CONTAMINANT LEVELS (MCL)
Date	27-Jan-2004	26-Apr-2004	27-Jul-2004	27-Oct-2004	25-Jan-05	26-Apr-05	26-Jul-05	25-Oct-05	31-Jan-06	25-Apr-06	
Organics Lab	North Creek	North Creek	North Creek	North Creek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Total Chlorine Residual, mg/L	0.21	0.28	0.23	0.02	0.21	0.14	0.35	0.04	0.27	0.15	
TRIHALOMETHANES, results micrograms/L											
Chloroform	< 0.5	< 0.5	< 0.5	**1.2**	< 0.5	**0.5**	< 0.5	**0.7**	< 0.5	< 0.5	
Bromodichloromethane	**0.5**	< 0.5	< 0.5	**1.5**	**0.6**	**0.9**	< 0.5	**1.0**	< 0.5	< 0.5	
Dibromochloromethane	**0.6**	**0.5**	< 0.5	**1.3**	**0.6**	**0.9**	< 0.5	**1.5**	< 0.5	< 0.5	
Bromoform	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**0.8**	< 0.5	< 0.5	
TOTAL TRIHALOMETHANES	**1.1**	**0.5**	< 2.0	**4.0**	**1.2**	**2.3**	< 2.0	**4.0**	< 2.0	< 2.0	80
HALOACETIC ACIDS (HAA5), results micrograms/L											
Chloroacetic acid	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2	< 2	< 2	< 2	
Bromoacetic acid	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	
Di-Chloroacetic acid	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	
Tri-Chloroacetic acid\	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	
Di-Bromoacetic acid	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	
TOTAL HAA (5)	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6.0	< 6	< 6	< 6	< 6	60
Chloro,bromoacetic acid	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1	< 1	< 1	

Results are in µg/L (ppb) except where otherwise noted
* State Unregulated

Distribution System Sampling for Disinfection Byproducts

Location	BPA Transmission Easement	BPA Transmission Easement	Mallen Tank	Mallen Tank	BPA Trans Easement	BPA Trans Easement	Mallen Tank	Mallen Tank	BPA Trans Easement	BPA Trans Easement	MAXIMUM CONTAMINANT LEVELS (MCL)
Date	25-Jul-06	31-Oct-06	30-Jan-2007	24-Apr-2007	31-Jul-2007	30-Oct-2007	29-Jan-2008	29-Apr-2008	29-Jul-2008	21-Oct-2008	
Organics Lab	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Total Chlorine Residual, mg/L	0.29	0.23	0.19	0.23	0.31		0.20	0.24	0.23	0.19	
TRIHALOMETHANES, results micrograms/L											
Chloroform	< 0.5	**1.1**	< 0.5	**1.3**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Bromodichloromethane	< 0.5	**1.4**	**0.6**	**0.5**	< 0.5	**0.8**	< 0.5	< 0.5	< 0.5	**0.86**	
Dibromochloromethane	< 0.5	**1.2**	**0.8**	**0.7**	< 0.5	**1.1**	**0.63**	< 0.5	< 0.5	**1.03**	
Bromoform	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**0.5**	< 0.5	< 0.5	< 0.5	< 0.5	
TOTAL TRIHALOMETHANES	< 2.0	**3.7**	**1.4**	**2.5**	< 0.5	**2.4**	**0.63**	< 0.5	< 0.5	**1.89**	80
HALOACETIC ACIDS (HAA5), results micrograms/L											
Chloroacetic acid	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	
Bromoacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Di-Chloroacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Tri-Chloroacetic acid\	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Di-Bromoacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
TOTAL HAA (5)	< 6	< 6	< 6.0	< 6.0	< 6.0	< 6.0	< 1	< 1	< 1	< 1	60
Chloro,bromoacetic acid *	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	

Results are in μg/L (ppb) except where otherwise noted
* State Unregulated

Distribution System Sampling for Disinfection Byproducts

Location	Mallen Tank	Mallen Tank	BPA Trans Easement	BPA Trans Easement	BPA Trans Easement	Mallen Tank	BPA Trans Easement	BPA Trans Easement	Mallen Tank	Mallen Tank	MAXIMUM CONTAMINANT LEVELS (MCL)
Date	27-Jan-09	21-Apr-2009	28-Jul-2009	27-Oct-2009	26-Jan-2010	28-Apr-2010	27-Jul-2010	26-Oct-2010	25-Jan-2011	26-Apr-2011	
Organics Lab	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Total Chlorine Residual, mg/L	0.26	0.25	0.27	0.11	0.23		0.24		0.23	0.19	
TRIHALOMETHANES, results micrograms/L											
Chloroform	< 0.5	< 0.5	< 0.5	**0.9**	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	**0.51**	
Bromodichloromethane	< 0.5	**0.52**	< 0.5	**1.3**	**0.67**	< 0.5	< 0.5	**0.68**	**0.98**	**0.97**	
Dibromochloromethane	< 0.5	**0.74**	< 0.5	**1.49**	**0.78**	**0.71**	< 0.5	**0.89**	**1.19**	**1.18**	
Bromoform	< 0.5	< 0.5	< 0.5	**0.6**	< 0.5	< 0.5	< 0.5	< 0.5	**0.51**	**0.53**	
TOTAL TRIHALOMETHANES	< 2.0	**1.26**	< 0.5	**4.29**	**1.45**	**0.71**	< 0.5	**1.57**	**2.68**	**3.19**	80
HALOACETIC ACIDS (HAA5), results micrograms/L											
Chloroacetic acid	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	
Bromoacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Di-Chloroacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Tri-Chloroacetic acid\	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Di-Bromoacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
TOTAL HAA (5)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	60
Chloro,bromoacetic acid *	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	

Results are in μg/L (ppb) except where otherwise noted
* State Unregulated

Distribution System Sampling for Disinfection Byproducts

Location	BPA Trans Easement	BPA Trans Easement	Strong Road	Cedar Hills	Mallen Tank	BPA Trans Easement	Eagle Ridge II	Southview	Strong Road	Cedar Hills	MAXIMUM CONTAMINANT LEVELS (MCL)
Date	26-Jul-2011	25-Oct-2011	12-Jan-2012	12-Jan-2012	12-Jan-2012	12-Jan-2012	12-Jan-2012	12-Jan-2012	12-Apr-2012	12-Apr-2012	
Organics Lab	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Total Chlorine Residual, mg/L	0.23	0.09									
TRIHALOMETHANES, results micrograms/L											
Chloroform	< 0.5	**0.65**	< 0.5	< 0.5	< 0.5	< 0.5	**0.53**	< 0.5	< 0.5	< 0.5	
Bromodichloromethane	**0.55**	**1.45**	**1.00**	**0.67**	**0.67**	**0.78**	**0.91**	**1.16**	**0.53**	**0.63**	
Dibromochloromethane	**0.73**	**2.18**	**0.69**	**0.89**	**0.91**	**1.35**	**1.08**	**2.33**	**0.90**	**1.03**	
Bromoform	< 0.5	**1.07**	**0.69**	< 0.5	< 0.5	**0.89**	**0.61**	**1.78**	**0.61**	< 0.5	
TOTAL TRIHALOMETHANES	**1.28**	**5.35**	**2.29**	**1.56**	**1.58**	**2.99**	**3.13**	**5.27**	**2.04**	**1.66**	80
LRAA	na	na	**na**	na	na	na	na	na	na	na	
HALOACETIC ACIDS (HAA5), results micrograms/L											
Chloroacetic acid	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	
Bromoacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Di-Chloroacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Tri-Chloroacetic acid\	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Di-Bromoacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
TOTAL HAA (5)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	60
Chloro,bromoacetic acid *	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	

Results are in μg/L (ppb) except where otherwise noted
* State Unregulated

Distribution System Sampling for Disinfection Byproducts

Location	Mallen Tank	BPA Trans Easement	Eagle Ridge II	Southview	Mallen Tank	BPA Trans Easement	Eagle Ridge II	Southview	Midbank	Cedar Springs	MAXIMUM CONTAMINANT LEVELS (MCL)
Date	12-Apr-2012	12-Apr-2012	12-Apr-2012	12-Apr-2012	12-Jul-2012	12-Jul-2012	12-Jul-2012	12-Jul-2012	12-Jul-2012	12-Jul-2012	
Organics Lab	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Total Chlorine Residual, mg/L											
TRIHALOMETHANES, results micrograms/L											
Chloroform	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**0.32**	< 0.5	< 0.5	< 0.5	
Bromodichloromethane	< 0.5	**0.55**	**0.87**	**1.02**	< 0.5	< 0.5	**0.55**	**0.81**	< 0.5	< 0.5	
Dibromochloromethane	**0.63**	**0.81**	**1.11**	**2.02**	< 0.5	< 0.5	**0.57**	**1.09**	< 0.5	< 0.5	
Bromoform	< 0.5	**0.57**	**0.53**	**1.74**	< 0.5	< 0.5	< 0.5	**0.9**	< 0.5	< 0.5	
TOTAL TRIHALOMETHANES	**0.63**	**1.93**	**2.51**	**4.78**	< 0.5	< 0.5	**1.44**	**2.8**	< 0.5	< 0.5	80
LRAA	na	na	na	na	na	na	na	na	na	na	
HALOACETIC ACIDS (HAA5), results micrograms/L											
Chloroacetic acid	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	
Bromoacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Di-Chloroacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Tri-Chloroacetic acid\	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Di-Bromoacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
TOTAL HAA (5)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	60
Chloro,bromoacetic acid *	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	

Results are in μg/L (ppb) except where otherwise noted
* State Unregulated

Distribution System Sampling for Disinfection Byproducts

Location	Mallen Tank	BPA Trans Easement	Eagle Ridge II	Southview	Midbank	Cedar Springs	Strong Road	Cedar Hills	Mallen Tank	BPA Trans Easement	MAXIMUM CONTAMINANT LEVELS (MCL)
Date	18-Oct-2012	18-Oct-2012	18-Oct-2012	18-Oct-2012	18-Oct-2012	18-Oct-2012	17-Jan-2013	17-Jan-2013	17-Jan-2013	17-Jan-2013	
Organics Lab	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Total Chlorine Residual, mg/L											
TRIHALOMETHANES, results micrograms/L											
Chloroform	< 0.25	**0.46**	0.3	**0.33**	**0.28**	**0.27**	< 0.25	< 0.25	< 0.25	**0.55**	
Bromodichloromethane	**0.5**	**0.84**	**0.60**	**0.78**	**0.66**	< 0.5	**0.62**	**0.59**	**0.55**	**1.12**	
Dibromochloromethane	**0.67**	**1.04**	**0.84**	**1.17**	**0.93**	**0.67**	**0.93**	**0.95**	**0.81**	**1.335**	
Bromoform	< 0.5	< 0.5	< 0.5	**0.78**	**0.51**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
TOTAL TRIHALOMETHANES	**1.17**	**2.34**	**1.74**	**3.08**	**2.38**	**0.94**	**1.55**	**1.54**	**1.36**	**3.02**	80
LRAA	**0.85**	**1.82**	**2.21**	**3.98**	**1.19**	**0.47**			**0.79**	**1.82**	
HALOACETIC ACIDS (HAA5), results micrograms/L											
Chloroacetic acid	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	
Bromoacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Di-Chloroacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Tri-Chloroacetic acid\	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Di-Bromoacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
TOTAL HAA (5)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	60
Chloro,bromoacetic acid *	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	

Results are in μg/L (ppb) except where otherwise noted
* State Unregulated

Distribution System Sampling for Disinfection Byproducts

Location	Eagle Ridge II	Southview	Strong Road	Cedar Hills	Mallen Tank	BPA Trans Easement	Eagle Ridge II	Southview	Strong Road	Cedar Hills	MAXIMUM CONTAMINANT LEVELS (MCL)
Date	17-Jan-2013	17-Jan-2013	4-Apr-2013	4-Apr-2013	4-Apr-2013	4-Apr-2013	4-Apr-2013	4-Apr-2013	18-Jul-2013	18-Jul-2013	
Organics Lab	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Total Chlorine Residual, mg/L											
TRIHALOMETHANES, results micrograms/L											
Chloroform	**0.42**	**0.39**	**0.42**	**0.29**	**0.29**	**0.58**	**0.44**	**0.41**	< 0.25	< 0.25	
Bromodichloromethane	**0.76**	**0.92**	**0.90**	**0.59**	**0.66**	**1.00**	**0.81**	**0.95**	< 0.5	< 0.5	
Dibromochloromethane	**1.23**	**1.58**	**1.15**	**0.86**	**0.91**	**1.19**	**1.03**	**1.21**	< 0.5	< 0.5	
Bromoform	**0.52**	**0.62**	< 0.5	< 0.5	< 0.5	**0.5**	< 0.5	**0.58**	< 0.5	< 0.5	
TOTAL TRIHALOMETHANES	**2.93**	**3.54**	**2.47**	**1.74**	**1.86**	**3.27**	**2.38**	**3.15**	< 0.5	< 0.5	80
LRAA	**2.16**	**3.55**	**2.69**	**1.63**	**1.1**	**2.16**	**2.12**	**3.14**	**1.52**	**1.24**	
HALOACETIC ACIDS (HAA5), results micrograms/L											
Chloroacetic acid	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	
Bromoacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Di-Chloroacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Tri-Chloroacetic acid\	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Di-Bromoacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
TOTAL HAA (5)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	60
Chloro,bromoacetic acid *	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	

Results are in μg/L (ppb) except where otherwise noted
* State Unregulated

Distribution System Sampling for Disinfection Byproducts

Location	Mallen Tank	BPA Trans Easement	Eagle Ridge II	Southview	Strong Road	Cedar Hills	Mallen Tank	BPA Trans Easement	Eagle Ridge II	Southview	MAXIMUM CONTAMINANT LEVELS (MCL)
Date	18-Jul-2013	18-Jul-2013	18-Jul-2013	18-Jul-2013	17-Oct-2013	17-Oct-2013	17-Oct-2013	17-Oct-2013	17-Oct-2013	17-Oct-2013	
Organics Lab	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Total Chlorine Residual, mg/L											
TRIHALOMETHANES, results micrograms/L											
Chloroform	< 0.25	< 0.25	< 0.25	**0.26**	**0.39**	**0.28**	< 0.25	**0.27**	**0.37**	**0.46**	
Bromodichloromethane	< 0.5	< 0.5	< 0.5	**0.76**	**0.7**	< 0.5	< 0.5	< 0.5	**0.73**	**0.98**	
Dibromochloromethane	**0.54**	< 0.5	< 0.5	**1.40**	**1.19**	**0.66**	< 0.5	**0.62**	**1.02**	**1.52**	
Bromoform	< 0.5	< 0.5	< 0.5	**0.85**	< 0.5	**0.51**	< 0.5	< 0.5	< 0.5	**0.78**	
TOTAL TRIHALOMETHANES	**0.54**	< 0.5	< 0.5	**3.27**	**3.19**	**1.57**	< 0.5	**0.89**	**2.95**	**4.26**	80
LRAA	**1.23**	**2.16**	**2.35**	**3.26**	**1.8**	**1.21**	**0.94**	**1.8**	**2.07**	**3.56**	
HALOACETIC ACIDS (HAA5), results micrograms/L											
Chloroacetic acid	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	
Bromoacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Di-Chloroacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Tri-Chloroacetic acid\	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Di-Bromoacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
TOTAL HAA (5)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	60
Chloro,bromoacetic acid *	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	

Results are in μg/L (ppb) except where otherwise noted
* State Unregulated

Distribution System Sampling for Disinfection Byproducts

Location	Southview	Eagle Ridge II	Southview	Eagle Ridge II	Southview	Eagle Ridge II	Southview	Eagle Ridge II	Southview	Eagle Ridge II	MAXIMUM CONTAMINANT LEVELS (MCL)
Date	16-Jan-2014	16-Jan-2014	16-Apr-2014	16-Apr-2014	17-Jul-2014	17-Jul-2014	16-Oct-2014	16-Oct-2014	15-Jan-2015	15-Jan-2015	
Organics Lab	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Total Chlorine Residual, mg/L											
TRIHALOMETHANES, results micrograms/L											
Chloroform	**0.58**	**0.49**	**0.47**	**0.43**	**0.36**	< 0.25	**0.37**	< 0.25	**1.01**	**1.03**	
Bromodichloromethane	**1.11**	**0.76**	**1.00**	**0.76**	**0.9**	< 0.5	**0.99**	< 0.5	**1.07**	**0.59**	
Dibromochloromethane	**1.43**	**1.02**	**1.22**	**0.87**	**1.36**	< 0.5	**2.01**	< 0.5	**1.15**	**0.52**	
Bromoform	**0.60**	< 0.5	**0.69**	< 0.5	**1.03**	< 0.5	**1.65**	< 0.5	**0.51**	< 0.5	
TOTAL TRIHALOMETHANES	**3.72**	**2.27**	**3.38**	**2.06**	**3.65**	< 0.5	**5.02**	< 0.5	**3.74**	**2.14**	80
LRAA	**3.60**	**1.9**	**3.66**	**1.82**	**3.75**	**1.82**	**3.94**	**1.08**	**3.95**	**1.05**	
HALOACETIC ACIDS (HAA5), results micrograms/L											
Chloroacetic acid	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	
Bromoacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Di-Chloroacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Tri-Chloroacetic acid\	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Di-Bromoacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
TOTAL HAA (5)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	60
Chloro,bromoacetic acid *	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	

Results are in μg/L (ppb) except where otherwise noted
* State Unregulated

Distribution System Sampling for Disinfection Byproducts

Location	Southview	Eagle Ridge II	Southview	Eagle Ridge II	Southview	Eagle Ridge II	MAXIMUM CONTAMINANT LEVELS (MCL)
Date	16-Apr-2015	16-Apr-2015	4-Aug-2015	4-Aug-2015	12-Nov-2015	12-Nov-2015	
Organics Lab	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Total Chlorine Residual, mg/L							
TRIHALOMETHANES, results micrograms/L							
Chloroform	**0.44**	**0.37**	**0.39**	< 0.25	**1.28**	**0.8**	
Bromodichloromethane	**1.04**	**0.64**	**0.82**	< 0.5	**1.74**	**1.08**	
Dibromochloromethane	**1.22**	**0.71**	**1.29**	< 0.5	**1.9**	**1.24**	
Bromoform	**0.59**	< 0.5	**0.71**	< 0.5	**0.72**	**0.52**	
TOTAL TRIHALOMETHANES	**3.29**	**1.72**	**3.24**	< 0.5	**5.64**	**3.64**	80
LRAA	**3.93**	**0.97**	**3.82**	**0.97**	**3.98**	**1.88**	
HALOACETIC ACIDS (HAA5), results micrograms/L							
Chloroacetic acid	< 2	< 2	< 2	< 2	< 2	< 2	
Bromoacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	
Di-Chloroacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	
Tri-Chloroacetic acid\	< 1	< 1	< 1	< 1	< 1	< 1	
Di-Bromoacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	
TOTAL HAA (5)	< 1	< 1	< 1	< 1	< 1	< 1	60
Chloro,bromoacetic acid *	< 1	< 1	< 1	< 1	< 1	< 1	

Results are in μg/L (ppb) except where otherwise noted
* State Unregulated

--- Baxter was decommisioned during 2002. ---

BAXTER

WELL STATION								Reported	20-Mar-08					MAXIMUM CONTAMINANT LEVELS
DATE	30-Aug-89	12-Nov-91	28-Jul-92	06-Oct-92	27-Jul-93	26-Jul-94	25-Jul-95	25-Jul-95	30-Jul-96	19-Aug-97	27-Aug-97	21-Jul-98	18-Nov-98	25-Jul-2000	
Organics Lab	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	IEL	IEL	Coffey	MWL	Laucks	Laucks	Laucks	Anatek	
Organics Note:															
Sampled by:	R. Butts		R. Butts	R. Butts	R. Butts	R. Butts	R. Reid	R. Reid	R. Butts	R. Butts	R. Butts	R. Butts		R. Butts	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL															
Bromoform		1.4	0.6		0.8	< 0.5	0.7		< 0.5		0.35	< 0.5		0.6	
Chloroform		3.1	6.0		4.7	5.6	22.6		10.0		7.8	5.9		10.6	
Dibromochloromethane		2.7	2.4		1.4	1.5	0.7		< 0.5		2.6	0.8		1.9	
Bromodichloromethane		2.7	4.0		1.7	2.8	5.7		< 0.5		4.3	1.1		2.6	
TOTAL		9.9	13.0		9.0	10.0	29.7		10		15.05	7.8		15.7	none
TRIHALOMETHANES															
Bromoform	0.6		< 0.5	< 0.5				**0.7**				< 0.5			
Chloroform	3.0		< 0.5	< 0.5				**2.5**				< 0.5			
Dibromochloromethane	1.2		0.5	0.6				< 0.5				< 0.5			
Bromodichloromethane	1.1		< 0.5	0.5				**1.7**				< 0.5			
TOTAL TRIHALOMETHANES	5.9		0.5	1.1				**4.9**				< 0.5			100.0
VOLATILE ORGANICS															
1,1,1-Trichloroethane	< 0.5		< 0.5	< 0.5				< 0.5				< 0.5			200.0
Tetrachloroethene	< 0.5		< 0.5	< 0.5				< 0.5				< 0.5			5.0
1,3-Dichloropropane	< 0.5		< 0.5	< 0.5				< 0.5				< 0.5			none
SYNTHETIC ORGANICS															
Di (2-ethylhexyl) Adipate								< 0.6		< 0.6		< 1.3	< 1.3	< 1.3	400.0
Di (2-ethylhexyl) Phthalate								< 0.6		< 0.6		< 1.3	< 1.3	< 1.3	6.0
Di-n-Butylphthalate								< 1.3		< 0.6*		< 0.6	< 0.6	< 0.4	none

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

* Di-n-Butylphthalate was detected at very low levels in a number of samples and in the laboratory blank during one test round.

WELL STATION **CENTRAL** Reported 20-Jan-12

DATE	07-Mar-88	25-Sep-89	15-Jan-90	09-Apr-90	13-Aug-90	29-Oct-90	24-Jul-91	12-Nov-91	11-Feb-92	04-May-92	28-Jul-92	28-Oct-92	27-Jan-93	27-Apr-93	27-Jul-93	MAXIMUM CONTAMINANT LEVELS
Organics Lab	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	
Organics Note:																
Sampled by:	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts		R. Butts	R. Butts	R. Butts	R. Butts	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL																
Bromoform								< 0.5			< 0.5					
Chloroform								1.6			10.2				2.7	
Dibromochloromethane								0.7			1.4				0.5	
Bromodichloromethane								1.0			3.5				0.7	
TOTAL								3.3			15.1				4.0	none
TRIHALOMETHANES																
Bromoform	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
Chloroform	< 0.5	< 0.5	< 0.5	**1.0**	**1.4**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
Dibromochloromethane	**0.6**	< 0.5	**0.6**	< 0.5	**0.7**	< 0.5	< 0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
Bromodichloromethane	< 0.5	< 0.5	< 0.5	**0.5**	**0.6**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
TOTAL TRIHALOMETHANES	**0.6**	< 2.0	**0.6**	**1.5**	**2.7**	< 2.0	< 2.0	0.5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0		80
VOLATILE ORGANICS																
1,1,1-Trichloroethane	< 0.5	< 0.5	**0.7**	**0.8**	**0.6**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		200
Tetrachloroethene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		5
1,3-Dichloropropane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		none
SYNTHETIC ORGANICS																
Di (2-ethylhexyl) Adipate																400
Di (2-ethylhexyl) Phthalate																6
Di-n-Butylphthalate																none

WELL STATION **CENTRAL** (CONTINUED)

DATE	26-Jul-94	10-Aug-94	31-Jan-95	25-Jul-95	25-Jul-95	14-May-96	30-Jul-96	06-May-97	19-Aug-97	27-Aug-97	05-May-98	27-Apr-99	03-Aug-99	25-Apr-00	31-Jul-01	MAXIMUM CONTAMINANT LEVELS
Organics Lab	WADOH	IEL	IEL	IEL	IEL	Coffey	Coffey	Coffey	MWL	Laucks	Laucks	Laucks/Anatek	Anatek	County(NCA)	Anatek	
Organics Note:																
Sampled by:	R. Butts	R. Butts	R. Butts	R. Reid	R. Reid	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL											21-Jul-98					
Bromoform	< 0.5			< 0.5			< 0.5			0.6	< 0.5		< 0.5	< 0.5	< 0.5	
Chloroform	4.0			6.2			9.3			5.5	4.5		2.8	7.0	14.6	
Dibromochloromethane	0.8			< 0.5			< 0.5			0.6	< 0.5		0.5	0.9	< 0.5	
Bromodichloromethane	1.5			2.2			< 0.5			2.3	0.5		1.1	1.4	1.0	
TOTAL	6.3			8.4			9.3			9.0	5.0		4.4	9.3	15.6	none
TRIHALOMETHANES																
Bromoform		< 0.5			**0.9**	< 0.5		< 0.5			< 0.5	< 0.5		< 0.5		
Chloroform		**1.0**			**1.1**	< 0.5		< 0.5			< 0.5	< 0.5		< 0.5		
Dibromochloromethane		< 0.5			< 0.5	< 0.5		< 0.5			< 0.5	< 0.5		< 0.5		
Bromodichloromethane		**0.8**			**1.0**	< 0.5		< 0.5			< 0.5	< 0.5		< 0.5		
TOTAL TRIHALOMETHANES		**1.8**			**3.0**	< 2.0		< 2.0			< 2.0	< 2.0		< 2.0		80
VOLATILE ORGANICS																
1,1,1-Trichloroethane		< 0.5			< 0.5	< 0.5		< 0.5			< 0.5	< 0.5		< 0.5		200
Tetrachloroethene		< 0.5			< 0.5	< 0.5		< 0.5			< 0.5	< 0.5		< 0.5		5
1,3-Dichloropropane		< 0.5			< 0.5	< 0.5		< 0.5			< 0.5	< 0.5		< 0.5		none
SYNTHETIC ORGANICS																
Di (2-ethylhexyl) Adipate			< 0.6					< 0.3	< 0.6			< 1.3	< 1.3			400
Di (2-ethylhexyl) Phthalate			< 0.6					< 1.2	< 0.6			< 1.3	< 1.3			6
Di-n-Butylphthalate			< 1.3						< 0.6*			< 0.4	< 0.4			none

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

* Di-n-Butylphthalate was detected at very low levels in a number of samples and in the laboratory blank during one test round.

CENTRAL

WELL STATION									Reported	20-Jan-12		MAXIMUM CONTAMINANT LEVELS
DATE	13-Aug-02	29-Jul-03	27-Jul-04	2005	2006	31-Jul-07	29-Jul-08	2009	2010	2011	2014	
Organics Lab	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Organics Note:												
Sampled by:	R. Butts	Wisely	Cribbins	Woodfill	Casci	Graf/Rickard	Graf/Rickard	Rickard	Graf/Greenlund	Graf/Greenlund	Graf/Greenlund	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL				26-Jul-05	25-Jul-06	31-Jul-07	29-Jul-08	28-Jul-09	27-Jul-10			
Bromoform	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5			
Chloroform	2.9	3.0	5.3	4.3	4.8	3.4	3.22	4.71	5.45			
Dibromochloromethane	0.5	0.5	0.6	0.6	< 0.5	0.5	< 0.5	1.03	0.66			
Bromodichloromethane	1.2	1.2	1.4	1.3	0.9	1.0	0.8	1.82	1.78			
TOTAL	4.6	4.7	7.3	6.2	5.7	4.9	4.05	7.56	7.89			none
TRIHALOMETHANES	January-02			01-Feb-05			29-Jan-08			25-Jan-11	28-Jan-14	
Bromoform	< 0.5			< 0.5			< 0.5			< 0.5	< 0.5	
Chloroform	< 0.5			< 0.5			< 0.5			< 0.5	< 0.5	
Dibromochloromethane	< 0.5			< 0.5			< 0.5			< 0.5	< 0.5	
Bromodichloromethane	< 0.5			< 0.5			< 0.5			< 0.5	< 0.5	
TOTAL TRIHALOMETHANES	< 2.0			< 2.0			< 2.0			< 2.0	< 0.5	80
VOLATILE ORGANICS				01-Feb-05			29-Jan-08			25-Jan-11	28-Jan-14	
1,1,1-Trichloroethane	< 0.5			< 0.5			< 0.5			< 0.5	< 0.5	200
Tetrachloroethene	< 0.5			< 0.5			< 0.5			< 0.5	< 0.5	5
1,3-Dichloropropane	< 0.5			< 0.5			< 0.5			< 0.5	< 0.5	none
SYNTHETIC ORGANICS	Aug.&Nov.			7/26 + 10/25			7/29 & 10/21			7/26 & 10/25	7/29 & 10/28	
Di (2-ethylhexyl) Adipate	< 1.3			< 1.3			< 1.3			< 1.3	< 0.6	400
Di (2-ethylhexyl) Phthalate	< 1.3			< 1.3			< 1.3			< 1.3	< 0.6	6
Di-n-Butylphthalate	< 0.4			< 0.4			< 0.4			< 0.6	< 0.6	none

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

* Di-n-Butylphthalate was detected at very low levels in a number of samples and in the laboratory blank during one test round.

WELL STATION GRACE Reported 20-Jan-12

DATE	31-May-88	30-Aug-89	13-Aug-90	29-Oct-90	24-Jul-91	12-Nov-91	28-Jul-92	27-Jul-93	26-Jul-94	10-Aug-94	31-Jan-95	25-Jul-95	25-Jul-95	30-Jul-96	07-Aug-96	MAXIMUM CONTAMINANT LEVELS
Organics Lab	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	IEL	IEL	IEL	IEL	Coffey	Coffey	
Organics Note:															Resample	
Sampled by:	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Reid	R. Reid	R. Butts	R. Butts	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL																
Bromoform						< 0.5	< 0.5		< 0.5			0.7		< 0.5		
Chloroform						4.8	12.8	9.3	6.0			22.9		11.0		
Dibromochloromethane						1.8	1.2	0.9	0.9			< 0.5		< 0.5		
Bromodichloromethane						2.6	3.2	2.2	2.0			4.0		< 0.5		
TOTAL						9.2	17.2	12.0	9.0			27.6		11.0		none
TRIHALOMETHANES																
Bromoform	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.5			< 0.5		< 0.5	
Chloroform	**0.7**	< 0.5	1.0	< 0.5	**0.5**	**1.5**	< 0.5	**0.6**		**0.9**			**0.8**		< 0.5	
Dibromochloromethane	**0.7**	**0.9**	**0.7**	**0.5**	< 0.5	**1.0**	< 0.5	**0.5**		< 0.5			< 0.5		< 0.5	
Bromodichloromethane	**0.5**	**0.7**	**0.8**	< 0.5	**0.5**	**1.0**	< 0.5	**0.5**		**1.0**			**0.8**		< 0.5	
TOTAL TRIHALOMETHANES	**1.9**	**1.6**	**2.5**	**0.5**	**1.0**	**3.5**	< 2.0	**1.6**		**1.9**			**1.6**		< 2.0	80
VOLATILE ORGANICS																
1,1,1-Trichloroethane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.5			< 0.5		< 0.5	200
Tetrachloroethene	**1.0**	**1.0**	**0.7**	**0.7**	**0.6**	**0.6**	**0.5**	< 0.5		< 0.5			**0.7**		< 0.5	5
1,3-Dichloropropane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.5			< 0.5		< 0.5	none
Trichlorofluoromethane (Freon 11)																
SYNTHETIC ORGANICS																
Di (2-ethylhexyl) Adipate											< 0.6					400
Di (2-ethylhexyl) Phthalate											< 0.6					6
Di-n-Butylphthalate											< 1.3					none

WELL STATION GRACE (CONTINUED)

DATE	29-Jul-97	27-Aug-97	07-Oct-97	21-Jul-98	18-Aug-98	01-Sep-98	27-Oct-98	18-Nov-98	29-Jun-99	03-Aug-99	25-Apr-00	25-Jul-00	24-Oct-00	31-Jul-01	13-Aug-02	MAXIMUM CONTAMINANT LEVELS
Organics Lab	Laucks	Laucks	MWL	Laucks/MWL	MWL	Laucks	Laucks	Anatek	Laucks/NCA	County(NCA)	County(NCA)	County(NCA)	Anatek	Anatek	Anatek	
Organics Note:			Resample													
Sampled by:	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL																
Bromoform		0.4		< 0.5						< 0.5		< 0.5		< 0.5	< 0.5	
Chloroform		5.8		6.6						7.1		9.7		18.6	8.6	
Dibromochloromethane		1.7		< 0.5						0.8		1.2		< 0.5	3.6	
Bromodichloromethane		2.7		0.7						2.4		2.0		1.2	5.7	
TOTAL		10.6		7.3						10.4		12.9		19.8	19.0	none
TRIHALOMETHANES																
Bromoform	< 0.5			< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	< 0.5			< 0.5		
Chloroform	< 0.5			< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	< 0.5			< 0.5		
Dibromochloromethane	< 0.5			< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	< 0.5			< 0.5		
Bromodichloromethane	< 0.5			< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	< 0.5			< 0.5		
TOTAL TRIHALOMETHANES	< 2			< 2		< 2	< 2		< 2	< 2	< 2			< 2		80
VOLATILE ORGANICS																
1,1,1-Trichloroethane	< 0.5			< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	< 0.5			< 0.5		200
Tetrachloroethene	< 0.5			< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	< 0.5			< 0.5		5
1,3-Dichloropropane	< 0.5			< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	< 0.5			< 0.5		none
Trichlorofluoromethane (Freon 11)				**0.60**		< 0.5	< 0.5		< 0.5	< 0.5	< 0.5			< 0.5		
SYNTHETIC ORGANICS																
Di (2-ethylhexyl) Adipate			< 0.6	< 1.3	< 1.3			< 1.3	< 1.3			< 1.3	< 1.3		< 1.3	400
Di (2-ethylhexyl) Phthalate			< 0.6	< 1.3	< 1.3			< 1.3	< 1.3			< 1.3	< 1.3		< 1.3	6
Di-n-Butylphthalate			< 0.6	< 0.6	< 0.6			< 0.6	< 0.4			< 0.4	< 0.4		< 0.4	none

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

GRACE

WELL STATION									Reported	20-Jan-12		MAXIMUM CONTAMINANT LEVELS
DATE	29-Jul-03	27-Jul-04	2005	2006	2007 *	2008 *	2009	2010	2011	2013	2014	
Organics Lab	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Organics Note:												
Sampled by:	Wisely	Cribbins	Woodfill	Casci	Graf/Rickard	Graf/Rickard	Rickard	Graf/Greenlund	Graf/Greenlund	Graf/Greenlund	Graf/Greenlund	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL				25-Jul-06	31-Jul-07	29-Jul-08	28-Jul-09	27-Jul-10	26-Jul-11			
Bromoform	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5				
Chloroform	5.4	8.3	5.8	8.0	4.81	3.22	9.08	8.95				
Dibromochloromethane	1.2	1.1	1.1	1.2	1.00	< 0.5	1.91	1.34				
Bromodichloromethane	2.6	2.3	2.2	2.4	1.94	0.8	3.83	3.29				
TOTAL	9.2	11.7	9.1	11.7	7.75	4.05	14.8	13.6				none
TRIHALOMETHANES					*	*			26-Jul-11	30-Jul-13		
Bromoform		< 0.5			< 0.5	< 0.5			< 0.5	< 0.5		
Chloroform		< 0.5			< 0.5	< 0.5			< 0.5	< 0.5		
Dibromochloromethane		< 0.5			< 0.5	< 0.5			< 0.5	< 0.5		
Bromodichloromethane		< 0.5			< 0.5	< 0.5			< 0.5	< 0.5		
TOTAL TRIHALOMETHANES		< 2			< 2	< 2			< 2	< 0.5		80
VOLATILE ORGANICS									26-Jul-11	30-Jul-13		
1,1,1-Trichloroethane		< 0.5			< 0.5	< 0.5			< 0.5	< 0.5		200
Tetrachloroethene		< 0.5			< 0.5	< 0.5			< 0.5	< 0.5		5
1,3-Dichloropropane		< 0.5			< 0.5	< 0.5			< 0.5	< 0.5		none
Trichlorofluoromethane (Freon 11)		< 0.5			< 0.5	< 0.5			< 0.5	< 0.5		
SYNTHETIC ORGANICS	Jul-03		7/26 + 10/25			7/29 & 10/21			7/26 & 10/25		7/29 & 12/2	
Di (2-ethylhexyl) Adipate	< 1.3		< 1.3			< 1.3			< 1.3		< 0.6	400
Di (2-ethylhexyl) Phthalate	< 1.3		< 1.3			< 1.3			< 1.3		< 0.6	6
Di-n-Butylphthalate	< 0.4		< 0.4			< 0.4			< 0.6		< 0.6	none

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

* Following a fire on July 23, 2007, at a nearby fuel storage facility, monthly VOC and TPH-Dx monitoring was initiated at Grace and Nevada well stations until Aug. 2008. There were no detections.

WELL STATION HOFFMAN

									Reported	20-Jan-12						MAXIMUM
																CONTAMINANT
DATE	31-May-88	30-Aug-89	12-Nov-91	28-Jul-92	27-Jul-93	15-Aug-94	25-Jul-95	25-Jul-95	30-Jul-96	19-Aug-97	27-Aug-97	21-Jul-98	18-Aug-98	01-Sep-98	27-Oct-98	LEVELS
Organics Lab	WADOH	WADOH	WADOH	WADOH	WADOH	IEL/WADOH	IEL	IEL	Coffey	MWL	Laucks	Laucks/MWL	MWL			
Organics Note:						SOC's by IEL for State										
Sampled by:	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Reid	R. Reid	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL																
Bromoform			0.7	< 0.5	0.6	0.6		0.7	< 0.5		0.3	< 0.5				
Chloroform			18.7	15.4	4.6	6.3		18.4	11.0		9.2	17				
Dibromochloromethane			1.8	1.2	0.9	1.2		0.5	< 0.5		1.0	0.96				
Bromodichloromethane			2.7	3.1	1.1	1.6		4.5	< 0.5		2.1	1.5				
TOTAL			23.9	19.7	7.2	10.0		24.1	11.0		12.6	19.46				none
TRIHALOMETHANES																
Bromoform	< 0.5	< 0.5		< 0.5			**0.8**					< 0.5		< 0.5	< 0.5	
Chloroform	**1.7**	< 0.5		**8.5**			**4.4**					**1.6**		**1.0**	**2.0**	
Dibromochloromethane	**0.9**	**0.8**		< 0.5			< 0.5					< 0.5		< 0.5	< 0.5	
Bromodichloromethane	< 0.5	**0.6**		< 0.5			**1.1**					< 0.5		< 0.5	< 0.5	
TOTAL TRIHALOMETHANES	**2.6**	**1.4**		**8.5**			**6.3**					1.6		1.0	2.0	80
VOLATILE ORGANICS																
1,1,1-Trichloroethane	< 0.5	< 0.5		< 0.5			< 0.5					< 0.5		< 0.5	< 0.5	200
Tetrachloroethene	< 0.5	< 0.5		< 0.5			< 0.5					< 0.5		< 0.5	< 0.5	5
1,3-Dichloropropane	< 0.5	< 0.5		< 0.5			< 0.5					< 0.5		< 0.5	< 0.5	none
Trichlorofluoromethane (Freon 11)												**1.1**		< 0.5	< 0.5	
SYNTHETIC ORGANICS																
Di (2-ethylhexyl) Adipate						< 0.6				< 0.6			< 1.3			400
Di (2-ethylhexyl) Phthalate						< 0.6				**0.7**			< 1.3			6
Di-n-Butylphthalate										< 0.6*			< 0.6			none

WELL STATION HOFFMAN (CONTINUED)

																MAXIMUM
																CONTAMINANT
DATE	18-Nov-98	29-Jun-99	03-Aug-99	25-Jul-2000	24-Oct-2000	31-Jul-2001	13-Aug-02	29-Jul-2003	27-Jul-04	1-Sep-2004	26-Oct-2004	2005	2006	2007	2008	LEVELS
Organics Lab	MWL	Laucks	County (NCA)	County (NCA)	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Organics Note:																
Sampled by:	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	Wisely	Cribbins	Cribbins	Cribbins	Woodfill	Casci	Graf/Rickard	Graf/Rickard	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL												26-Jul-05	25-Jul-06	31-Jul-07	04-Aug-08	
Bromoform			< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5			< 0.5	< 0.5	< 0.5	< 0.5	
Chloroform			4.9	9.1		18.5	4.8	5.9	7.0			7.7	6.1	4.15	4.01	
Dibromochloromethane			0.7	1.0		0.6	1.1	1.4	1.1			1.4	0.8	0.80	1.06	
Bromodichloromethane			1.6	1.6		1.0	2.1	2.8	2.0			2.8	1.4	1.50	1.68	
TOTAL			7.2	11.7		20.1	8.0	10.1	10.1			11.9	8.3	6.45	6.75	none
TRIHALOMETHANES												7/26 + 10/25		30-Oct-07	04-Aug-08	
Bromoform		< 0.5	< 0.5	< 0.5		< 0.5			< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	
Chloroform		**0.54**	**0.555**	**1.92**		< 0.5			< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	
Dibromochloromethane		< 0.5	< 0.5	< 0.5		< 0.5			< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	
Bromodichloromethane		< 0.5	< 0.5	< 0.5		< 0.5			< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	
TOTAL TRIHALOMETHANES		**0.54**	**0.56**	**1.92**		< 2.0			< 2.0		< 2.0	< 2.0		< 2.0	< 2.0	80
VOLATILE ORGANICS												7/26 + 10/25		30-Oct-07	04-Aug-08	
1,1,1-Trichloroethane		< 0.5	< 0.5	< 0.5		< 0.5			< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	200
Tetrachloroethene		< 0.5	< 0.5	< 0.5		< 0.5			**3.09* * ***	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	5
1,3-Dichloropropane		< 0.5	< 0.5	< 0.5		< 0.5			< 0.5		< 0.5	< 0.5		resample 2008	< 0.5	none
Trichlorofluoromethane (Freon 11)		< 0.5	< 0.5	< 0.5		< 0.5			< 0.5		< 0.5	< 0.5		resample 2008	< 0.5	
Dichloromethane (Methylene Chloride, Freon 30)				**1.5 ****		< 0.5			< 0.5		< 0.5	< 0.5		< 0.5	< 0.5	
SYNTHETIC ORGANICS												7/26 + 10/25			7/29 & 10/21	
Di (2-ethylhexyl) Adipate	< 1.3	< 1.3		< 1.3	< 1.3		< 1.3	< 1.3				< 1.3			< 1.3	400
Di (2-ethylhexyl) Phthalate	< 1.3	< 1.3		< 1.3	< 1.3		< 1.3	< 1.3				< 1.3			< 1.3	6
Di-n-Butylphthalate	< 0.6	< 0.4		< 0.4	< 0.4		< 0.4	< 0.4				< 0.4			< 0.4	none

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

* Di-n-Butylphthalate was detected at very low levels in a number of samples and in the laboratory blank during one test round.

** Dichloromethane was detected. This is a common laboratory contaminant and the laboratory blank had over twice this concentration. WA Dept. of Health concurred with our assessment that the sample is assumed to have been contaminated

*** On routine maintenance of the production pump motor a commercial solvent was used on the date of sampling, with the sole ingredient being Perc.

The State Dept. of Health agreed with the Water Dept. that this excursion did not represent a legitimate characterization of drinking water. The solvent is no longer used and subsequent quarterly tests have had no detections.

WELL STATION **HOFFMAN** (CONTINUED)

						MAXIMUM CONTAMINANT LEVELS
DATE	2009	2010	2011	2013	2014	
Organics Lab	Anatek	Anatek	Anatek	Anatek	Anatek	
Organics Note:						
Sampled by:	Rickard	Graf/Greenlund	Graf/Greenlund	Graf/Greenlund	Graf/Greenlund	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL	28-Jul-09	27-Jul-10	26-Jul-11			
Bromoform	< 0.5	< 0.5				
Chloroform	7.04	7.47				
Dibromochloromethane	1.51	1.55				
Bromodichloromethane	3.13	3.62				
TOTAL	11.7	12.6				none
TRIHALOMETHANES			26-Jul-11	30-Jul-13		
Bromoform			< 0.5	< 0.5		
Chloroform			< 0.5	< 0.5		
Dibromochloromethane			< 0.5	< 0.5		
Bromodichloromethane			< 0.5	< 0.5		
TOTAL TRIHALOMETHANES			< 2.0	< 0.5		80
VOLATILE ORGANICS			26-Jul-11	30-Jul-13		
1,1,1-Trichloroethane			< 0.5	< 0.5		200
Tetrachloroethene			< 0.5	< 0.5		5
1,3-Dichloropropane			< 0.5	< 0.5		none
Trichlorofluoromethane (Freon 11)			< 0.5	< 0.5		
Dichloromethane (Methylene Chloride, Freon 30)			< 0.5	< 0.5		
SYNTHETIC ORGANICS			7/26 & 10/25		29-Jul-14	
Di (2-ethylhexyl) Adipate			< 1.3		< 0.6	400
Di (2-ethylhexyl) Phthalate			< 1.3		< 0.6	6
Di-n-Butylphthalate			< 0.6		< 0.6	none

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

WELL STATION NEVADA Reported 20-Jan-12

DATE	7-Mar-1988	31-May-1988	12-Apr-1989	30-Aug-1989	15-Jan-1990	9-Apr-1990	13-Aug-1990	29-Oct-1990	24-Jul-1991	12-Nov-1991	11-Feb-1992	4-May-1992	28-Jul-1992	28-Oct-1992	16-Feb-1993	MAXIMUM CONTAMINANT LEVELS
Organics Lab	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	
Organics Note:															Resample	
Sampled by:	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL																
Bromoform										< 0.5			< 0.5			
Chloroform										7.6			4.1			
Dibromochloromethane										1.3			1.2			
Bromodichloromethane										2.7			2.2			
TOTAL										11.6			7.5			none
TRIHALOMETHANES																
Bromoform	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**< 0.5**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Chloroform	< 0.5	**0.5**	**< 0.5**	< 0.5	**0.7**	**0.70**	**0.6**	0.5	< 0.5	**0.6**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Dibromochloromethane	**< 0.5**	**0.8**	0.6	**0.8**	**0.9**	0.6	**0.5**	< 0.5	< 0.5	**0.7**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Bromodichloromethane	**< 0.5**	**0.6**	< 0.5	**0.5**	**0.7**	**0.60**	< 0.5	< 0.5	**0.5**	**0.7**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
TOTAL TRIHALOMETHANES	**< 2.0**	**1.9**	**0.60**	**1.3**	**2.3**	**1.90**	**1.1**	**0.5**	**0.5**	**2.0**	**< 2.0**	< 2.0	**< 2.0**	**< 2.0**	< 2.0	80
VOLATILE ORGANICS																
1,1,1-Trichloroethane	< 0.5	< 0.5	< 0.5	< 0.5	**0.5**	**0.5**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	200.0
Tetrachloroethene	**0.6**	**1.0**	**1.1**	**0.8**	**1.1**	**1.0**	**0.6**	**0.7**	< 0.5	**0.7**	< 0.5	< 0.5	< 0.5	**0.6**	**0.6**	5.0
1,3-Dichloropropane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**0.6**	< 0.5	< 0.5	< 0.5	< 0.5	none
SYNTHETIC ORGANICS																
Di (2-ethylhexyl) Adipate																400.0
Di (2-ethylhexyl) Phthalate																6.0
Di-n-Butylphthalate																none

WELL STATION NEVADA (CONTINUED)

DATE	27-Apr-1993	27-Jul-1993	26-Jul-1994	10-Aug-1994	31-Jan-1995	25-Jul-1995	25-Jul-1995	14-May-1996	30-Jul-1996	6-May-1997	19-Aug-1997	27-Aug-1997	28-Apr-1998	1-Sep-1998	27-Apr-99	MAXIMUM CONTAMINANT LEVELS
Organics Lab	WADOH	WADOH	WADOH	IEL	IEL	IEL	IEL	Coffey	Coffey	Coffey	MWL	Laucks	Laucks	Laucks	Laucks/Anatek	
Organics Note:																
Sampled by:	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Reid	R. Reid	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL														07/21/98		
Bromoform			< 0.5			< 0.5			< 0.5			0.5		< 0.5		
Chloroform		7.6	4.9			19.0			9.0			4.7		5.5		
Dibromochloromethane		0.9	0.8			< 0.5			< 0.5			1.7		< 0.5		
Bromodichloromethane		2.0	1.8			3.9			< 0.5			2.6		0.7		
TOTAL		11.0	8.0			22.9			9.0			9.5		6.18		none
TRIHALOMETHANES																
Bromoform	< 0.5			< 0.5			< 0.5	< 0.5		< 0.5			< 0.5	< 0.5	< 0.5	
Chloroform	< 0.5			**1.50**			**0.80**	< 0.5		< 0.5			< 0.5	< 0.5	< 0.5	
Dibromochloromethane	< 0.5			< 0.5			< 0.5	< 0.5		< 0.5			< 0.5	< 0.5	< 0.5	
Bromodichloromethane	< 0.5			**1.00**			**0.80**	< 0.5		< 0.5			< 0.5	< 0.5	< 0.5	
TOTAL TRIHALOMETHANES	< 2.0			**2.50**			**1.60**	< 2		< 2						80
VOLATILE ORGANICS																
1,1,1-Trichloroethane	< 0.5			< 0.5			< 0.5	< 0.5		< 0.5			< 0.5	< 0.5	< 0.5	200.0
Tetrachloroethene	**0.5**			< 0.5			**0.5**	< 0.5		< 0.5			< 0.5	< 0.5	< 0.5	5.0
1,3-Dichloropropane	< 0.5			< 0.5			< 0.5	< 0.5		< 0.5			< 0.5	< 0.5	< 0.5	none
SYNTHETIC ORGANICS																
Di (2-ethylhexyl) Adipate					< 0.6					< 0.4	< 0.6				< 1.3	400.0
Di (2-ethylhexyl) Phthalate					< 0.6					< 1.8	< 0.6				< 1.3	6.0
Di-n-Butylphthalate					< 1.3						< 0.6*				< 0.4	none

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

* Di-n-Butylphthalate was detected at very low levels in a number of samples and in the laboratory blank during one test round.

NEVADA (CONTINUED)

WELL STATION	2000	2001	2002	2003	2004	2005	2006	2007 *	2008 *	Reported 2009	2010	2011	2012	2014	2015	MAXIMUM CONTAMINANT LEVELS
DATE										20-Jan-12						
Organics Lab	County (NCA)	County (NCA)	County (NCA)	Anatek	03-Jan-00	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Organics Note:																
Sampled by:				Cribbins	Woodfill	Woodfill	Casci	Graf/Rickard	Graf/Rickard	Rickard	Graf/Greenlund	Graf/Greenlund	Graf/Greenlund	Graf/Greenlund	Graf/Greenlund	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL				29-Jul-03	27-Jul-04		25-Jul-06	31-Jul-07	29-Jul-08	28-Jul-09	27-Jul-10	26-Jul-11				
Bromoform	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5					
Chloroform	9.7	1.4	5.5	6.0	7.8	8.5	2.1	3.59	5.19	4.20	7.87					
Dibromochloromethane	1.2	< 0.5	1.6	1.2	1.0	1.8	0.9	0.84	1.48	1.39	1.36					
Bromodichloromethane	2.0	0.5	2.9	2.4	2.0	2.8	1.3	1.62	2.54	2.53	3.4					
TOTAL	10.8	1.9	10.0	9.6	10.8	13.1	4.3	6.05	9.21	8.12	12.6					none
TRIHALOMETHANES				06-May-03			25-Apr-06	*	*			26-Jul-11		29-Jul-14		
Bromoform	< 0.5			< 0.5			< 0.5	< 0.5	< 0.5			< 0.5		< 0.5		
Chloroform	< 0.5			< 0.5			< 0.5	< 0.5	< 0.5			< 0.5		< 0.25		
Dibromochloromethane	< 0.5			< 0.5			< 0.5	< 0.5	< 0.5			< 0.5		< 0.5		
Bromodichloromethane	< 0.5			< 0.5			< 0.5	< 0.5	< 0.5			< 0.5		< 0.5		
TOTAL TRIHALOMETHANES	< 2.0			< 2.0			< 2.0	< 2.0	< 2.0			< 2.0		< 2.0		80
VOLATILE ORGANICS	25-Apr-00			06-May-03			25-Apr-06	*	*			26-Jul-11				
1,1,1-Trichloroethane	< 0.5			< 0.5			< 0.5	< 0.5	< 0.5			< 0.5		< 0.5		200.0
Tetrachloroethene	< 0.5			< 0.5			< 0.5	< 0.5	< 0.5			< 0.5		< 0.5		5.0
1,3-Dichloropropane	< 0.5			< 0.5			< 0.5	< 0.5	< 0.5			< 0.5		< 0.5		none
SYNTHETIC ORGANICS				4/29 & 7/29			4/25 + 7/25			4/21 & 7/28			4/24 & 7/31		4/28 & 7/28	
Di (2-ethylhexyl) Adipate				< 1.3			< 1.3			< 1.3			< 0.6		< 0.6	400.0
Di (2-ethylhexyl) Phthalate				< 1.3			< 1.3			< 1.3			< 0.6		< 0.6	6.0
Di-n-Butylphthalate				< 0.4			< 0.4			< 0.4			< 0.6		< 0.6	none

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

* Following a fire on July 23, 2007, at a nearby fuel storage facility, monthly VOC and TPH-Dx monitoring was initiated at Grace and Nevada well stations until Aug. 2008. There were no detections.

WELL STATION **PARKWATER** Reported 20-Jan-12

DATE	07-Mar-88	30-Aug-89	12-Nov-91	28-Jul-92	06-Oct-92	27-Jan-93	27-Apr-93	27-Jul-93	25-Jan-94	26-Apr-94	26-Jul-94	26-Jul-94	01-Nov-94	25-Jul-95	MAXIMUM CONTAMINANT LEVELS
Organics Lab	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	IEL	IEL	WADOH	IEL	IEL	IEL	
Organics Note:															
Sampled by:	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Reid	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL															
Bromoform			< 0.5	< 0.5							< 0.5			< 0.5	
Chloroform			4.4	2.6				3.4			4.6			28.1	
Dibromochloromethane			1.1	0.9				0.5			0.8			0.5	
Bromodichloromethane			2.0	1.5				0.8			1.6			5.4	
TOTAL			7.5	5.0				5.0			7.0			34.0	none
TRIHALOMETHANES															
Bromoform	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5							
Chloroform	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5							
Dibromochloromethane	< 0.5	**0.6**		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5							
Bromodichloromethane	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5							
TOTAL TRIHALOMETHANES	< 2.0	**0.6**		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0							80
VOLATILE ORGANICS															
1,1,1-Trichloroethane	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5							200
Tetrachloroethene	< 0.5	< 0.5			< 0.5	< 0.5	< 0.5	< 0.5							5
1,3-Dichloropropane	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5							none
SYNTHETIC ORGANICS															
Di (2-ethylhexyl) Adipate									< 0.2	**2.1**		< 0.6	< 0.6		400
Di (2-ethylhexyl) Phthalate									**0.3**	**0.2**		< 0.6	< 0.6		6
Di-n-Butylphthalate															none

WELL STATION **PARKWATER** (CONTINUED)

DATE	30-Jul-1996	7-Aug-1996	6-May-1997	19-Aug-1997	27-Aug-1997	3-Aug-1999	22-Dec-1999	25-Jul-2000	31-Jul-2001	13-Aug-02	29-Jul-2003	27-Jul-04	2005	2006	31-Jul-07	MAXIMUM CONTAMINANT LEVELS
Organics Lab	Coffey	Coffey	Coffey	MWL	Laucks	NCA/Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Organics Note:		Resample														
Sampled by:	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	Wisely	Cribbins	Woodfill	Casci	Graf/Rickard	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL																
Bromoform	< 0.5				0.4	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Chloroform	8.9				3.6	4.3		10.1	17.3	3.6	3.7	8.1	6.6	6.6	3.11	
Dibromochloromethane	< 0.5				1.1	0.7		1.0	< 0.5	0.7	0.6	0.8	1.0	0.7	0.68	
Bromodichloromethane	< 0.5				2.1	1.6		1.6	1.2	1.5	1.4	1.8	2.0	1.4	1.22	
TOTAL	8.9				7.2	6.6		12.7	18.5	5.8	5.7	10.7	9.6	8.8	5.01	none
TRIHALOMETHANES											6-May-2003			25-Apr-2006		
Bromoform		< 0.5				< 0.5	< 0.5				< 0.5			< 0.5		
Chloroform		< 0.5				< 0.5	< 0.5				< 0.5			< 0.5		
Dibromochloromethane		< 0.5				< 0.5	< 0.5				< 0.5			< 0.5		
Bromodichloromethane		< 0.5				< 0.5	< 0.5				< 0.5			< 0.5		
TOTAL TRIHALOMETHANES		< 2.0				< 2.0	< 2.0				< 2.0			< 2.0		80
VOLATILE ORGANICS														25-Apr-06		
1,1,1-Trichloroethane		< 0.5				< 0.5	< 0.5				< 0.5			< 0.5		200
Tetrachloroethene		< 0.5				< 0.5	< 0.5				< 0.5			< 0.5		5
1,3-Dichloropropane		< 0.5				< 0.5	< 0.5				< 0.5			< 0.5		none
SYNTHETIC ORGANICS						Aug & Oct 1999					Jul & Oct 2003			7/25 + 10/31		
Di (2-ethylhexyl) Adipate			< 0.25	< 0.6		< 1.3					< 1.3			< 1.3		400
Di (2-ethylhexyl) Phthalate			< 0.9	< 0.6		< 1.3					< 1.3			< 1.3		6
Di-n-Butylphthalate				< 0.6*		< 0.4					< 0.4			< 0.4		none

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

* Di-n-Butylphthalate was detected at very low levels in a number of samples, but also in the laboratory blank during this test round.

PARKWATER

Reported 20-Jan-12

WELL STATION						MAXIMUM CONTAMINANT LEVELS
DATE	2008	28-Jul-09	27-Jul-10	31-Jan-12	27-Jan-15	
Organics Lab	Anatek	Anatek	Anatek	Anatek	Anatek	
Organics Note:						
Sampled by:	Graf/Rickard	Rickard	Graf/Greenlund	Graf/Greenlund	Graf/Greenlund	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL						
Bromoform	< 0.5	< 0.5	< 0.5			
Chloroform	4.13	4.83	7.62			
Dibromochloromethane	1.06	1.77	1.2			
Bromodichloromethane	1.62	2.63	2.54			
TOTAL	6.81	9.23	11.4			none
TRIHALOMETHANES		21-Apr-09		31-Jan-12	27-Jan-15	
Bromoform		< 0.5		< 0.5	< 0.5	
Chloroform		< 0.5		< 0.5	< 0.25	
Dibromochloromethane		< 0.5		< 0.5	< 0.5	
Bromodichloromethane		< 0.5		< 0.5	< 0.5	
TOTAL TRIHALOMETHANES		< 2.0		< 0.5	< 2	80
VOLATILE ORGANICS						
1,1,1-Trichloroethane		< 0.5		< 0.5	< 0.5	200
Tetrachloroethene		< 0.5		< 0.5	< 0.5	5
1,3-Dichloropropane		< 0.5		< 0.5	< 0.5	none
SYNTHETIC ORGANICS		7/28 & 10/27		7/31 & 10/30	7/28 & 10/27	
Di (2-ethylhexyl) Adipate		< 1.3		< 0.6		400
Di (2-ethylhexyl) Phthalate		< 1.3		< 0.6		6
Di-n-Butylphthalate		< 0.4		< 0.6		none

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

RAY

WELL STATION								Reported	20-Jan-12						MAXIMUM CONTAMINANT LEVELS
DATE	7-Mar-1988	30-Aug-1989	12-Nov-1991	28-Jul-1992	6-Oct-1992	27-Jan-1993	11-May-1993	27-Jul-1993	19-Oct-1993	25-Jan-1994	26-Apr-1994	26-Jul-1994	10-Aug-1994	1-Nov-1994	31-Jan-1995	
Organics Lab	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH RETAKE FOR 3/27/93	WADOH	WADOH	WADOH	WADOH	WADOH	IEL	IEL	IEL	
Organics Note:																
Sampled by:	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL																
Bromoform			1.9	0.7				0.8				< 0.5				
Chloroform			3.7	7.4				6.5				7.7				
Dibromochloromethane			2.8	2.9				2.7				2.7				
Bromodichloromethane			2.9	4.6				3.9				4.7				
TOTAL			11.3	15.6				14.0				15.0				none
TRIHALOMETHANES																
Bromoform	< 0.5	**1.0**		**0.5**	< 0.5	< 0.5	< 0.5	**0.7**	< 0.5	< 0.5	**1.0**		< 0.5	< 0.5	< 0.5	
Chloroform	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**0.7**	< 0.5	**0.5**		< 0.5	< 0.5	**0.8**	
Dibromochloromethane	**0.9**	**1.6**		**1.0**	**0.6**	**0.5**	**0.7**	**1.0**	**1.3**	< 0.5	**0.7**		< 0.5	**0.5**	**1.6**	
Bromodichloromethane	< 0.5	**0.8**		**0.6**	< 0.5	< 0.5	< 0.5	**0.6**	**0.9**	< 0.5	**1.3**		< 0.5	< 0.5	**1.4**	
TOTAL TRIHALOMETHANES	**0.9**	**3.4**		**2.1**	**0.6**	**0.5**	**0.7**	**2.3**	**2.9**	< 2.0	**3.5**		< 2.0	0.5	**3.8**	80
VOLATILE ORGANICS																
1,1,1-Trichloroethane	< 0.5	< 0.5		**0.6**	< 0.5	< 0.5	**0.5**	**1.2**	**1.0**	< 0.5	< 0.5		< 0.5	< 0.5	**2.2**	200
Tetrachloroethene	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	5
1,3-Dichloropropane	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	none
SYNTHETIC ORGANICS																
Di (2-ethylhexyl) Adipate															< 0.6	400
Di (2-ethylhexyl) Phthalate															< 0.6	6
Di-n-Butylphthalate															< 1.3	none

RAY (CONTINUED)

WELL STATION															MAXIMUM CONTAMINANT LEVELS
DATE	2-May-1995	25-Jul-1995	25-Jul-1995	30-Jan-1996	30-Jul-1996	28-Jan-1997	6-May-1997	19-Aug-1997	27-Aug-1997	23-Mar-1998	26-Jan-1999	3-Aug-1999	26-Oct-1999	1-Feb-2000	25-Jul-2000	
Organics Lab	IEL	IEL	IEL	IEL	Coffey	Coffey	Coffey	MWL	Laucks	Laucks	Laucks	Anatek	Anatek	County(NCA)	Anatek	
Organics Note:																
Sampled by:	R. Butts	R. Reid	R. Reid	R. Butts	R. Butts	R. Butts	R. Butts	Roy Butts	Roy Butts	Roy Butts	Roy Butts	R. Butts	R. Butts	R. Butts	R. Butts	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL										21-Jul-98						
Bromoform			0.8		< 0.5				1.2	1.1		< 0.5			1.3	
Chloroform			39.3		10.0				13.0	11.0		6.2			11.0	
Dibromochloromethane			1.1		< 0.5				5.3	3.1		2.0			3.4	
Bromodichloromethane			8.2		< 0.5				8.2	4.7		3.6			4.1	
TOTAL			49.4		10.0				27.7	19.9		11.8			19.8	none
TRIHALOMETHANES																
Bromoform	**1.2**	**1.0**		< 0.5		< 0.5				< 0.5	< 0.5			< 0.5		
Chloroform	< 0.5	**0.8**		< 0.5		< 0.5				< 0.5	< 0.5			< 0.5		
Dibromochloromethane	< 0.5	< 0.5		< 0.5		< 0.5				< 0.5	< 0.5			< 0.5		
Bromodichloromethane	**0.9**	**0.8**		< 0.5		< 0.5				< 0.5	< 0.5			< 0.5		
TOTAL TRIHALOMETHANES	**2.1**	**2.6**		< 2.0		< 2.0				< 2.0	< 2.0			< 2.0		80
VOLATILE ORGANICS																
1,1,1-Trichloroethane	**1.6**	< 0.5		< 0.5		< 0.5				< 0.5	< 0.5			< 0.5		200
Tetrachloroethene	< 0.5	< 0.5		< 0.5		< 0.5				< 0.5	< 0.5			< 0.5		5
1,3-Dichloropropane	< 0.5	< 0.5		< 0.5		< 0.5				< 0.5	< 0.5			< 0.5		none
SYNTHETIC ORGANICS																
Di (2-ethylhexyl) Adipate							< 0.3	< 0.6				< 1.3	< 1.3			400
Di (2-ethylhexyl) Phthalate							< 1.1	< 0.6				< 1.3	< 1.3			6
Di-n-Butylphthalate								< 0.6*				< 0.4	< 0.4			none

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

* Di-n-Butylphthalate was detected at very low levels in a number of samples, but also in the laboratory blank during this test round.

WELL STATION RAY

Reported 20-Jan-12

DATE	31-Jul-2001	13-Aug-02	29-Jul-2003	2004	2005	2006	2007	2008	2009	2010	2012	2015	MAXIMUM CONTAMINANT LEVELS
Organics Lab	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Organics Note:													
Sampled by:	R. Butts	R. Butts	Wisely	Cribbins	Woodfill	Casci	Graf/Rickard	Graf/Rickard	Rickard	Graf/Greenlund	Graf/Greenlund	Graf/Greenlund	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL				27-Jul-04	26-Jul-05	25-Jul-06	31-Jul-07	29-Jul-09	28-Jul-09	27-Jul-10			
Bromoform	< 0.5	< 0.5	< 0.5	0.8	< 0.5	0.9	< 0.5	0.59	< 0.5	0.6			
Chloroform	16.0	8.6	6.1	11.9	7.3	8.4	5.2	5.29	5.03	9.16			
Dibromochloromethane	1.0	3.6	2.1	2.5	2.3	2.3	2.1	2.37	2.13	2.99			
Bromodichloromethane	1.9	5.7	3.9	4.1	3.5	3.3	3.2	2.93	3.23	6.41			
TOTAL	18.9	19.0	12.1	19.3	13.1	14.9	10.5	11.2	10.4	19.2			none
TRIHALOMETHANES			28-Jan-03			31-Jan-06			27-Jan-09		31-Jan-12	27-Jan-15	
Bromoform	< 0.5		< 0.5			< 0.5			< 0.5		< 0.5	< 0.5	
Chloroform	< 0.5		< 0.5			< 0.5			< 0.5		< 0.5	< 0.25	
Dibromochloromethane	< 0.5		< 0.5			< 0.5			< 0.5		< 0.5	< 0.5	
Bromodichloromethane	< 0.5		< 0.5			< 0.5			< 0.5		< 0.5	< 0.5	
TOTAL TRIHALOMETHANES	< 2.0		< 2.0			< 2.0			< 2.0		< 0.5	< 2	80
VOLATILE ORGANICS													
1,1,1-Trichloroethane	< 0.5		< 0.5			< 0.5			< 0.5		< 0.5	< 0.5	200
Tetrachloroethene	< 0.5		< 0.5			< 0.5			< 0.5		< 0.5	< 0.5	5
1,3-Dichloropropane	< 0.5		< 0.5			< 0.5			< 0.5		< 0.5	< 0.5	none
SYNTHETIC ORGANICS			Jul & Oct 2003			7/25 + 10/31			7/28 + 10/27		7/31 & 10/30	7/28 & 10/27	
Di (2-ethylhexyl) Adipate			< 1.3			< 1.3			< 1.3		< 0.6		400
Di (2-ethylhexyl) Phthalate			< 1.3			< 1.3			< 1.3		< 0.6		6
Di-n-Butylphthalate			< 0.4			< 0.4			< 0.4		< 0.6		none

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

WELL ELECTRIC

WELL STATION									Reported	20-Jan-12						MAXIMUM CONTAMINANT LEVELS
DATE	31-May-88	30-Aug-89	12-Nov-91	28-Jul-92	27-Jul-93	19-Oct-93	26-Jul-94	31-Jan-95	25-Jul-95	30-Jul-96	07-Aug-96	19-Aug-97	27-Aug-97	18-Aug-98	18-Nov-98	
Organics Lab	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	WADOH	IEL	IEL	Coffey	Coffey Resample	MWL	Laucks	MWL	Anatek	
Organics Note:																
Sampled by:	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Reid	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL														21-Jul-98		
Bromoform			< 0.5	< 0.5			< 0.5		< 0.5	< 0.5			0.4	< 0.5		
Chloroform			11.8	11.1	4.2		6.2		15.0	10.0			5.0	6.6		
Dibromochloromethane			1.6	1.1	0.7		1.0		< 0.5	< 0.5			1.4	0.8		
Bromodichloromethane			3.7	3.0	1.3		2.3		3.2	< 0.5			2.3	1.3		
TOTAL			17.1	15.2	6.0		10.0		18.2	10.0			9.1	8.7		none
TRIHALOMETHANES																
Bromoform	< 0.5	< 0.5		< 0.5		< 0.5					< 0.5					
Chloroform	**0.5**	**0.9**		< 0.5		< 0.5					< 0.5					
Dibromochloromethane	**0.8**	**0.7**		< 0.5		**0.7**					< 0.5					
Bromodichloromethane	**0.7**	**0.6**		< 0.5		**0.6**					< 0.5					
TOTAL TRIHALOMETHANES	**2.0**	**2.2**		< 2.0		**1.3**					< 2.0					80
VOLATILE ORGANICS																
1,1,1-Trichloroethane	< 0.5	< 0.5		< 0.5		< 0.5					< 0.5					200
Tetrachloroethene	< 0.5	< 0.5		< 0.5		< 0.5					< 0.5					5
1,3-Dichloropropane	< 0.5	< 0.5		< 0.5		< 0.5					< 0.5					none
SYNTHETIC ORGANICS																
Di (2-ethylhexyl) Adipate								< 0.6				< 0.6		< 1.3	< 1.3	400
Di (2-ethylhexyl) Phthalate								< 0.6				< 0.6		< 1.3	< 1.3	6
Di-n-Butylphthalate								< 1.3				< 0.6*		< 0.6	< 0.4	none

WELL ELECTRIC (CONTINUED)

WELL STATION																MAXIMUM CONTAMINANT LEVELS
DATE	03-Aug-99	26-Oct-99	22-Dec-99	25-Jul-00	31-Jul-01	13-Aug-02	29-Jul-2003	27-Jul-04	2005	2006	2007	2008	2009	2010	2012	
Organics Lab	County (NCA)	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Organics Note:																
Sampled by:	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	R. Butts	Wisely	Cribbins	Woodfill	Casci	Graf/Rickard	Graf/Rickard	Rickard	Graf/Greenlund	Graf/Greenlund	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL									26-Jul-05	25-Jul-06	25-Jul-07	29-Jul-08	28-Jul-09	27-Jul-10		
Bromoform	< 0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.9	< 0.5	< 0.5	< 0.5	< 0.5		
Chloroform	5.3			11.6	10.2	7.0	6.5	9.4	8.6	8.4	4.41	4.35	3.58	8.81		
Dibromochloromethane	0.8			1.1	< 0.5	1.2	1.0	1.0	1.0	2.3	0.77	0.96	0.98	1.12		
Bromodichloromethane	2.2			1.9	0.9	2.6	2.5	2.1	2.4	3.3	1.63	1.51	1.90	2.9		
TOTAL	8.3			14.6	11.1	10.8	10.0	12.5	12.0	14.9	6.81	6.82	6.46	12.8		none
TRIHALOMETHANES							6-May-2003			25-Jul-2006				26-Jan-10	31-Jul-12	
Bromoform	< 0.5		< 0.5				< 0.5			< 0.5				< 0.5		
Chloroform	< 0.5		< 0.5				< 0.5			< 0.5				< 0.5		
Dibromochloromethane	< 0.5		< 0.5				< 0.5			< 0.5				< 0.5		
Bromodichloromethane	< 0.5		< 0.5				< 0.5			< 0.5				< 0.5		
TOTAL TRIHALOMETHANES	< 2.0		< 2.0				< 2.0			< 2.0				< 2.0		80
VOLATILE ORGANICS																
1,1,1-Trichloroethane	< 0.5		< 0.5				< 0.5			< 0.5				< 0.5		200
Tetrachloroethene	< 0.5		< 0.5				< 0.5			< 0.5				< 0.5		5
1,3-Dichloropropane	< 0.5		< 0.5				< 0.5			< 0.5				< 0.5		none
SYNTHETIC ORGANICS							Jul 29 & Oct 21			Jul & Oct 2006			7/28 & 10/27		7/31 & 10/30	
Di (2-ethylhexyl) Adipate	< 1.3	< 1.3					< 1.3			< 1.3			< 1.3		< 0.6	400
Di (2-ethylhexyl) Phthalate	< 1.3	< 1.3					< 1.3			< 1.3			< 1.3		< 0.6	6
Di-n-Butylphthalate	< 0.4	< 0.4					< 0.4			< 0.4			< 0.4		< 0.6	none
Di-methyl Phthalate										**0.70 ****						non-regulated

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

* Di-n-Butylphthalate was detected at very low levels in a number of samples and in the laboratory blank during one test round.

* * detected in 10/31/2006 sampling. No detection in re-sample and considered to be a laboratory contamination.

WELL STATION

WELL ELECTRIC (CONTINUED)

MAXIMUM CONTAMINANT LEVELS

DATE	2015
Organics Lab	Anatek
Organics Note:	
Sampled by:	Graf/Greenlund
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL	
Bromoform	
Chloroform	
Dibromochloromethane	
Bromodichloromethane	
TOTAL	
TRIHALOMETHANES	28-Jul-15
Bromoform	< 0.5
Chloroform	< 0.25
Dibromochloromethane	< 0.5
Bromodichloromethane	< 0.5
TOTAL TRIHALOMETHANES	< 2.0
VOLATILE ORGANICS	
1,1,1-Trichloroethane	< 0.5
Tetrachloroethene	< 0.5
1,3-Dichloropropane	< 0.5
SYNTHETIC ORGANICS	7/28 & 10/27
Di (2-ethylhexyl) Adipate	
Di (2-ethylhexyl) Phthalate	
Di-n-Butylphthalate	
Di-methyl Phthalate	

ALL RESULTS ARE REPORTED IN µg/L (i.e. parts per billion)

Appendix VII - Information Collection Rule - Sampling Sites

Site # 1 - Raw Source Water from Parkwater Station	Raw water prior to any treatment or distribution
Site # 8 - Treated (chlorinated) Water sampled at the Parkwater Station	sampled at the source just following treatment by chlorination
Site # 9 - Treated (chlorinated) Water held to simulate residence time of Site #50 (1-2 hrs)	newly treated water held in a container to simulate a short residence time in the distribution system (similar to residence time at site # 50)
Site # 50 - Water sampled in distribution system - 1923 N. Waterworks Rd.	approximately 1-2 hour residence time in distribution system
Site # 51 - Water sampled in distribution system - Fire Stn. #3, 1713 N. Ash	approximately midway in the main distribution system
Site # 52 - Water sampled in distribution system - Fire Stn. #4, 8 S. Adams	approximately midway in the main distribution system
Site # 55 - Water sampled in distribution system - Jensen Distribution Services - Aero Road (West Plains area)	sample point to represent the extreme distance (longest residence time) of the distribution system

Appendix VII - Information Collection Rule - 1998 Sampling Results

SITE >		*# 01*		*# 08*		*# 09*		*# 50*		*# 51*		*# 52*		*# 55*	
TEST	*UNITS*	No. of tests	max. conc.	No. of tests	max. conc.	No. of tests	max. conc.	No. of tests	max. conc.	No. of tests	max. conc.	No. of tests	max. conc.	No. of tests	max. conc.
UV-254	cm - 1	12	0.01	12	0.009										
NH3-	mg/L	12	< 0.3												
Bromide	mg/L	12	< 0.3												
Alkalinity	mg CaCO3/L	12	160	13	160	4	160	4	150	4	160	4	150	3	140
Calcium Hardness	mg CaCO3/L	12	110	13	95	4	94	4	95	4	92	4	90	3	88
Total Hardness	mg CaCO3/L	12	190	13	170	4	170	4	170	4	160	4	160	3	140
TOC	mg/L	12	< 0.7	11	< 0.7										
TOX	ug Cl-/L	4	< 50	5	51	4	< 50	4	< 50	4	< 50	4	< 50	3	< 50
Chloroform	ug/L			5	< 1.0	4	< 1.0	3	< 1.0	3	< 1.0	3	< 1.0	2	< 1.0
Trichloroacetonitrile	ug/L			5	< 0.5	4	< 0.5	3	< 0.5	4	< 0.5	4	< 0.5	3	< 0.5
Dichloroacetonitrole	ug/L			5	< 0.5	4	< 0.5	3	< 0.5	4	< 0.5	4	< 0.5	3	< 0.5
Bromodichloromethane	ug/L			4	< 1.0	3	< 1.0	3	< 1.0	3	< 1.0	3	< 1.0	2	1.5
1,1-Dichloro-2-propanone	ug/L			5	< 0.5	4	< 0.5	3	< 0.5	4	< 0.5	4	< 0.5	3	< 0.5
Chloropicrin	ug/L			5	< 0.5	4	< 0.5	3	< 0.5	4	< 0.5	4	< 0.5	3	< 0.5
Dibromochloromethane	ug/L			5	< 1.0	4	< 1.0	3	< 1.0	3	< 1.0	3	1.0	2	2.0
Bromochloroacetonitrile	ug/L			5	< 0.5	4	< 0.5	3	< 0.5	4	< 0.5	4	< 0.5	3	< 0.5
1,1,1-Trichloro-2-propanone	ug/L			5	< 0.5	4	0.7	3	< 0.5	4	< 0.5	4	< 0.5	3	< 0.5
Bromoform	ug/L			5	1.3	4	< 1.0	3	< 1.0	3	1.5	3	1.8	2	< 1.0
Dibromoacetonitrile	ug/L			5	< 0.5	4	< 0.5	3	< 0.5	4	< 0.5	4	< 0.5	3	< 0.5
Monochloroacetic Acid	ug/L			4	< 2.0	4	< 2.0	4	< 2.0	4	3.5	4	< 2.0	3	5.8
Monobromoacetic Acid	ug/L			4	< 1.0	4	< 1.0	4	< 1.0	4	< 1.0	4	< 1.0	3	< 1.0
Dichloroacetic Acid	ug/L			4	< 1.0	4	1.2	4	< 1.0	4	< 1.0	4	< 1.0	3	< 1.0
Trichloroacetic Acid	ug/L			4	< 1.0	4	< 1.0	4	< 1.0	4	< 1.0	4	< 1.0	3	< 1.0
Bromochloroacetic Acid	ug/L			4	< 1.0	4	< 1.0	4	< 1.0	4	< 1.0	4	< 1.0	3	< 1.0
Dibromoacetic Acid	ug/L			4	< 1.0	4	< 1.0	4	1.0	4	< 1.0	4	< 1.0	3	< 1.0
Chloral Hydrate	ug/L			4	< 0.5	3	< 0.5	4	< 0.5	4	< 0.5	3	< 0.5	3	< 0.5

Appendix VIII - Unregulated Contaminant Monitoring Rule - Round 1 (UCMR 1)

List 1 Contaminants	2,4 - dinitrotoluene	EPTC	Nitrobenzene	Perchlorate
	2,6 - dinitrotoluene	Molinate	MtBE	Terbacil
	Acetochlor	4,4' - DDE	DCPA, mono & di acid degradate	
*List 2 Contaminants **	1,2-diphenylhydrazine	2-methyl-phenol	2,4-dichlorophenol	2,4-dinitrophenol
	2,4,6-trichlorophenol	Diazinon	Disulfoton	Diuron
	Fonofos	Linuron	Nitrobenzene	
	Prometon	Terbufos	Aeromonas spp. *	

List 1 Monitoring Sites Treated Source Water from All Well Stations

List 2 Monitoring Sites	MD - Fire Station #3 - 1713 W. Indiana	mid-point representation of the residual disinfectant in the distribution system
	LD - Shawnee Tank	monitoring point representative of the lowest residual disinfectant in the distribution system
	MR - Fairways Golf Course	the most distant point in the distribution system representing the maximum residence time in the distribution system

UCMR 1 - sampling results

	2002 - 3rd qtr	2002 - 4th qtr	2003 - 1st qtr		2003 - 2nd qtr			2003 - 3rd qtr			2003 - 4th qtr	
						5/1 TO 7/31 Vulnerable time **						
	AUG	NOV	JAN	FEB	APR	MAY	JUN	JULY	AUG	SEPT	OCT	DEC
List 1	2002	2002	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003
CENTRAL		no detection				no detection						
GRACE						no detection					no detection	
HOFFMAN								no detection				no detection
NEVADA						no detection					no detection	
PARKWATER		no detection				no detection						
RAY		no detection				no detection						
WELL ELECTRIC	no detection	no detection		no detection		no detection						
List 2 - Aeromonas spp. only *												
MD - FIRE STATION #3			< 0.2		< 0.2			< 0.2	< 0.2	< 0.2	< 0.2	
LD - SHAWNEE TANK			< 0.2		< 0.2			< 0.2	< 0.2	< 0.2	< 0.2	
MR - FAIRWAYS GOLF COURSE			< 0.2		< 0.2			< 0.2	< 0.2	< 0.2	< 0.2	

* The City of Spokane was selected to sample and test for the microbial contaminant only.

* * For much of the United States east of the Rocky Mountains, many studies have shown the season of greatest vulnerability for contaminant occurrence is the late-spring, early-summer runoff-recharge period. (EPA 815-R-99-007, Tech. Bkgrd Info for UCMR)

Appendix IX - Viral Investigation Reported 5-Feb-2007

WELL	Source water	Nevada	Parkwater	Grace	Nevada	Ray St.	Parkwater	Well Electric	Grace	Grace	Well Electric	Well Electric	Nevada
	DATE	3-May-2006	3-May-2006	3-May-2006	25-Jul-06	25-Jul-06	25-Jul-06	25-Jul-06	15-Aug-06	31-Oct-06	31-Oct-06	30-Jan-07	30-Jan-07
	TIME	9:30	8:45	9:15:00	8:35:00	9:15:00	10:40:00	10:00	10:30	10:20		10:15	8:40
WATER	ELEVA.(FT)	1880.8	1897.6	1879.4	1870.9	1878	1883.4	1893.1	1871.5	1875.1	1895.6	1883.9	1895.9
	GPM.WELL	10215	0	8650	3035	6700	6850	8750	8000	8030	8400	3880	8750
	GPM.FIELD	20215	0	8650	21700	11700	34000	8750	8000	8030	8400	3880	8750
FIELD													
	Cl.RES.F	-		-	0.24	0.3			0.2	0.21	0.36	0.20	
	COND.F	247	355	240	259	358	358	306	209	271	296	258	314
	pH.F	8.37	7.9	8.4	7.66	7.59	7.71	7.67	7.97	7.67	7.66	7.76	7.79
	TEMP(C).F	12.0	10.5	12.0	15.5	12.5	11	11.5	10.5	11	10.5	12.0	11.0
	TURB.F	0.21	0.1	0.11	0.22	0.15	0.42	0.19	0.27	0.21	0.13	0.11	0.17
	BACT.LAB	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD
	BBY	Casci	Casci	Casci	Casci	Casci	Casci	Casci	Casci	Casci	Casci	Graf	Graf
	COLIFORM, FECAL,Raw Source Water	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	COLIFORM, TOTAL, Raw Source Water	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	3	1	< 1	< 1
	HETEROTROPHIC PLATE COUNT, Raw Source Water	1	1	1	2	9	2	1	0.5	0.5	1	1	1
Viral Investigation													
	EPA meth. 1601 - Famp (p/a, Host: E. coli 15597)	absent	absent	**present**	absent	absent	absent	absent	absent	absent	absent	absent	absent
	EPA meth. 1601 - CN13 (p/a, Host: E. coli 15597)	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent	absent

Appendix X - Unregulated Contaminant Monitoring Rule - Round 2 (UCMR 2)

2/3/2011

List 1 Contaminants

Dimethoate	BDE-99	BDE-100	RDX
Terbufos sulfone	HBB	1,3-dinitrobenzene	
BDE-47	BDE-153	2,4,6-trinitrotoluene (TNT)	

List 2 Contaminants

Acetochlor	Acetochlor oxanilic acid (OA)	Metolachlor oxanilic acid (OA)	N-nitroso-di-n-propylamine (NDPA)
Alachlor	Alachlor ethane sulfonic acid (ESA)	N-nitroso-diethylamine (NDEA)	N-nitroso-methylethylamine (NMEA)
Metolachlor	Alachlor oxanilic acid (OA)	N-nitroso-dimethylamine (NDMA)	N-nitroso-pyrrolidine (NPYR)
Acetochlor ethane sulfonic acid (ESA)	Metolachlor ethane sulfonic acid (ESA)	N-nitroso-di-n-butylamine (NDBA)	

List 1 Monitoring Sites Treated Source Water from All Well Stations

List 2 Monitoring Sites Treated Source Water from All Well Stations
For nitrosamines, the sampling locations are both the well stations and a maximum residence time in the distribution system (MR) point(s) associated with the well stations.

UCMR 2 - sampling results

List 1 And List 2	July 2009	August 2009	September 2009	October 2009	November 2009	December 2009	January 2010	February 2010	March 2010	April 2010	May 2010	June 2010
CENTRAL	no detection						no detection					
GRACE	no detection									no detection		
HOFFMAN	no detection									no detection		
NEVADA	no detection						no detection					
PARKWATER	no detection						**NDMA 0.00216 µg/L**					
RAY	no detection						no detection					
WELL ELECTRIC	no detection						no detection					
BPA Easment *	no detection						no detection					

* tested for nitrosamines only

* * For much of the United States east of the Rocky Mountains, many studies have shown the season of greatest vulnerability for contaminant occurrence is the late-spring, early-summer runoff-recharge period. (EPA 815-R-99-007, Tech. Bkgrd Info for UCMR)

Appendix XI - Unregulated Contaminant Monitoring Rule - Round 3 (UCMR 3) 3/15/2016

Chemical	March 2015 results (µg/L)								minimum reporting level (µg/L)	Reference Concentrations (µg/L)
List 1	Central	Hoffman	Nevada	Parkwater	Ray Street	BPA Easement	Southview	Eagle Ridge Two		
1,4-dioxane	ND	ND	ND	ND	ND				0.07	0.35 to 35
chromiun-6 (hexavalent chromium)	0.275	0.286	0.194	0.253	0.337	0.209	0.823	0.277	0.03	NA
chromium (total)	0.27	0.312	ND	0.276	0.344	0.208	0.296	0.284	0.2	100
cobalt	ND	ND	ND	ND	ND	ND	ND	ND	1	70
molybdenum	ND	1.34	ND	1.67	ND	ND	1.39	1.6	1	40
strontium	91.9	101	72.9	116	156	74.2	109	114	0.2	1,500
vanadium	0.39	0.219	ND	ND	0.565	ND	0.21	ND	0.2	21
1,2,3-trichloropropane	ND	ND	ND	ND	ND				0.03	0.0004 to 0.04
1,3-butadiene	ND	ND	ND	ND	ND				0.1	0.0103 to 1.03
chloromethane (methyl chloride)	ND	ND	ND	ND	ND				0.2	2.69 to 269
1,1-dichloroethane	ND	ND	ND	ND	ND				0.03	6.14 to 614
bromochlorlmethane (Halon 1011)	ND	ND	ND	ND	ND				0.06	90
bromomethane (methyl bromide)	ND	ND	ND	ND	ND				0.2	140
chlorodifluoromethane (HCFC-22)	ND	ND	ND	ND	ND				0.08	NA
chlorate	ND	ND	ND	ND	ND	ND	21	ND	20	210
perfluorooctanesulfonic acid (PFOS)	ND	ND	ND	ND	ND				0.04	0.2
perfluorooctonic acid (PFOA)	ND	ND	ND	ND	ND				0.02	0.4
perfluorononanoic acid (PFNA)	ND	ND	ND	ND	ND				0.02	NA
perfluorohexanesulfonic acid (PFHxS)	ND	ND	ND	ND	ND				0.03	NA
perfluoroheptanoic acid (PFHpA)	ND	ND	ND	ND	ND				0.01	NA
perfluorobutanesulfonic acid (PFBS)	ND	ND	ND	ND	ND				0.09	NA
List 2										
17-β-estradiol	ND	ND	ND	ND	ND				0.0004	0.0009 to 0.09
17-α-ethynylestradiol	ND	ND	ND	ND	ND				0.0009	0.035
estriol (16-α-hyroxyestradiol)	ND	ND	ND	ND	ND				0.0008	0.35
equilin	ND	ND	ND	ND	ND				0.004	0.35
estrone	ND	ND	ND	ND	ND				0.002	0.35
testosterone	ND	ND	ND	ND	ND				0.0001	NA
4-androstene-3,17-dione	ND	ND	ND	ND	ND				0.0003	NA

Chemical	September 2015 results (µg/L)								minimum reporting level (µg/L)	Reference Concentrations (µg/L)
List 1	Central	Hoffman	Nevada	Parkwater	Ray Street	BPA Easement	Southview	Eagle Ridge Two		
1,4-dioxane	ND	ND	ND	ND	ND				0.07	0.35 to 35
chromiun-6 (hexavalent chromium)	0.257	0.26	0.207	0.264	0.329	0.222	0.26	0.25	0.03	NA
chromium (total)	0.273	0.261	ND	0.238	0.262	ND	0.246	0.224	0.2	100
cobalt	ND	ND	ND	ND	ND	ND	ND	ND	1	70
molybdenum	ND	1.23	ND	1.61	ND	ND	1.32	1.55	1	40
strontium	86.9	108	72.6	114	136	76.1	104	107	0.2	1,500
vanadium	0.404	0.217	ND	ND	0.492	0.217	0.235	ND	0.2	21
1,2,3-trichloropropane	ND	ND	ND	ND	ND				0.03	0.0004 to 0.04
1,3-butadiene	ND	ND	ND	ND	ND				0.1	0.0103 to 1.03
chloromethane (methyl chloride)	ND	ND	ND	ND	ND				0.2	2.69 to 269
1,1-dichloroethane	ND	ND	ND	ND	ND				0.03	6.14 to 614
bromochlorlmethane (Halon 1011)	ND	ND	ND	ND	ND				0.06	90
bromomethane (methyl bromide)	ND	ND	ND	ND	ND				0.2	140
chlorodifluoromethane (HCFC-22)	ND	ND	ND	0.142	ND				0.08	NA
chlorate	ND	ND	ND	ND	ND	ND	ND	ND	20	210
perfluorooctanesulfonic acid (PFOS)	ND	ND	ND	ND	ND				0.04	0.2
perfluorooctonic acid (PFOA)	ND	ND	ND	ND	ND				0.02	0.4
perfluorononanoic acid (PFNA)	ND	ND	ND	ND	ND				0.02	NA
perfluorohexanesulfonic acid (PFHxS)	ND	ND	ND	ND	ND				0.03	NA
perfluoroheptanoic acid (PFHpA)	ND	ND	ND	ND	ND				0.01	NA
perfluorobutanesulfonic acid (PFBS)	ND	ND	ND	ND	ND				0.09	NA
List 2										
17-β-estradiol	ND	ND	ND	ND	ND				0.0004	0.0009 to 0.09
17-α-ethynylestradiol	ND	ND	ND	ND	ND				0.0009	0.035
estriol (16-α-hyroxyestradiol)	ND	ND	ND	ND	ND				0.0008	0.35
equilin	ND	ND	ND	ND	ND				0.004	0.35
estrone	ND	ND	ND	ND	ND				0.002	0.35
testosterone	ND	ND	ND	ND	ND				0.0001	NA
	ND	ND	ND	ND	ND				0.0003	NA

ND not detected above the minimum reporting level
NA not applicable

Appendix XII Quarterly Monitoring Well Results

Well / Location	Felts Field	DOT(Stacked well)	Franklin Park	Hale's Ale (stacked well 3 locations)	Marietta & Denver	N.E. Community Ctr.
Sentinel designation	*Well Electric/Parkwater*	*Ray St.*	*Central*	*Parkwater/Well Electric*	*Grace/Nevada*	*Hoffman*
Sample date						
3/9/2011	no TIC					
5/12/2011		no TIC			no TIC	
8/11/2011			Tri(2-chloroethyl) phosphate 2.41 ppb			Tri(2-chloroethyl) phosphate 3.50 ppb
11/11/2011				nonanoic acid 1.74 ppb		
11/11/2011				Dodecanoic Acid .86 ppb		
11/11/2011				n -Deconoic Acid 0.64 ppb		
5/8/2012	no TIC	no TIC			no TIC	
11/7/2012				no TIC		
2/12/2013		no TIC				
5/7/2013	no TIC				no TIC	
8/15/2013			no TIC			no TIC
11/6/2013				no TIC		
12/12/2013					no TIC	
2/12/2014		no TIC			n-Hexadeconoic acid 1 ppb	
2/12/2014					9-Octadecenoic acid 1 ppb	
5/7/2014					no TIC	
8/14/2014			no TIC			no TIC
11/13/2014				no TIC		
2/11/2015		no TIC				
5/13/2015	no TIC				no TIC	
8/6/2015			no TIC			no TIC
2/4/2016		no TIC		no TIC		

The top 10 TIC's (>90% statistical match to reference spectra) were reported
Only TIC's of estimated concentration >0.5 ppb were reported

CONTAMINANTS FOUND IN DRINKING WATER TESTING IN 2015

CITY OF SPOKANE, WATER & HYDROELECTRIC SERVICES

Data presented, if not from 2015, is from the most recent testing done in accordance with the regulations.

SOURCE WATER TESTING CONTAMINANT	Units	Highest Average	Detected Maximum	Detected min.	Number Positive Samples	Number of Samples	MCL	MCLG	MAJOR SOURCES
Arsenic	µg/L	**(a)**	**4.4**	**2.5**	**3**	**3**	**10**	**0**	**Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes**
Nitrate	mg/L	**(a)**	**3.23**	**0.68**	**10**	**10**	**10**	**10**	**Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits**
Gross Alpha	pCi/L	**(a)**	**1.5**	**< 1.0**	**1**	**2**	**15**	**0**	**Erosion of natural deposits**
Combined Radium 226 and 228 (b)	pCi/L	**(a)**	**1.5**	**<0.5**	**1**	**2**	**5**	**0**	**Erosion of natural deposits**
Chromium	µg/L	**(a)**	**1.3**	**0.238**	**10**	**13**	**100**	**100**	**Discharge from steel and pulp mills; erosion of natural deposits.**

DISTRIBUTION SYSTEM TESTING CONTAMINANT	Units	LRAA	Detected Maximum	Detected min.	Number Positive Samples	Number of Samples	MCL	MCLG	MAJOR SOURCES
Disinfection Byproducts - TTHMs [Total Trihalomethanes]	µg/L	**3.94**	**5.02**	**2.06**	**6**	**8**	**80**	**0**	**By-product of drinking water chlorination**
Chromium	µg/L	**(a)**	**0.296**	**0.208**	**5**	**6**	**100**	**100**	**Discharge from steel and pulp mills; erosion of natural deposits.**

CONTAMINANT	Highest Percent Detected	Sample Date	Violation	MCL	MCLG	
Total Coliform Bacteria	0.6%	one detection on July 6, 2015	No	5 % of monthly samples are positive	**0**	**Naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present**

		date sampled	90th Percentile (d)	Number of Sites exceeding AL	Number Positive Samples	Number of Samples	MCL	MCLG	
Copper (c)	mg/L	**Aug-15**	**0.06**	**0**	**58**	**58**	**TT, AL= 1.3**	**1.3**	**Corrosion of household plumbing systems; Erosion of natural deposits: Leaching from wood preservatives**
Lead (c)	µg/L	**Aug-15**	**5.00**	**0**	**57**	**58**	**TT, AL= 15**	**0**	**Corrosion of household plumbing systems; Erosion of natural deposits**

Continued on next page

UNREGULATED CONTAMIANTS IN SOURCE WATER AND DISTRIBUTION SYSTEM TESTING CONTAMINANT	Units	Detected Maximum	Detected Minimum	Number Positive Samples	Number of Samples	MCL	MCLG	MAJOR SOURCES
chlorate	µg/L	**21**	**< 20**	**1**	**6**	**N/A**	**N/A**	**Agricultural defoliant or desiccant; disinfection byproduct; and used in production of chlorine dioxide**
chlorodifluoromethane	µg/L	**0.14**	**< 0.08**	**1**	**10**	**N/A**	**N/A**	**Chlorofluorocarbon; occurs as a gas, and used as a refrigerant, as a low-temperature solvent, and in fluorocarbon resins, especially tetrafluoroethylene polymers.**
hexavalent chromium (chromium - 6)	µg/L	**0.823**	**0.194**	**16**	**16**	**N/A**	**N/A**	**Naturally-occurring element; used in making steel and other alloys; chromium -3 or-6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation**
molybdenum	µg/L	**1.67**	**1.23**	**8**	**16**	**N/A**	**N/A**	**Naturally-occurring element found in ores and present in plants, animals and bacteria; commonly used form molybdenum trioxide used as a chemical reagent**
strontium	µg/L	**156**	**72.6**	**16**	**16**	**N/A**	**N/A**	**Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions**
vanadium	µg/L	**0.565**	**0.21**	**9**	**16**	**N/A**	**N/A**	**Naturally-occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and catalyst**

Notes

(a) Compliance with MCL is determined by single sample results, so no average is used.

(b) Gross Alpha results were used in lieu of Radium 226, one half of the detection limit of 1.0 was used for the ND

(c) Faucet samples were from 'at risk' homes (those with lead service lines and those with copper pipes with lead solder joints).

(d) 90% of at-risk homes had this concentration, or less, of lead/copper.

Key to Table

AL = Action Level = The concentration of a contaminant which, if exceeded, triggers treatment or other requirement which a water system must follow.
LRAA = Locational Running Annual Average

MCL = Maximum Contaminant Level = The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG = Maximum Contaminant Level Goal = The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

pCi/L = picocuries per liter (a measure of radioactivity)

µg/L = micrograms per Liter = parts per billion

mg/L =milligrams per Liter = parts per million

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

ND = None Detected

NA = Not Applicable

< less than