REPORT ON CITY OF SPOKANE DRINKING WATER FOR 2010

Reported by
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1 April 2011

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. A comprehensive list of the substances tested for is in Appendix II. The City drinking water supply, to date, has consistently met Federal standards. This report provides a summary of the drinking water monitoring conducted during 2010 by contaminant group with historical context. 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 2010, and documents some indicators to show the progress being made to meet conservation goals adopted by the City in its Water Stewardship Strategic Plan.

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://water.epa.gov/drink/aqua/)

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.

The final pages (appendices) of this report summarize the most recent analytical testing. Appendix III summarizes the testing completed during 2010, 2009, and 2008. Appendix IV through X summarizes the analytical results for recent and historical testing. The following narrative and attachments summarize and explain recent results in more detail. Appendix XI 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, but are not limited to, 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 announced signing a Memorandum of Agreement

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(http://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 help 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.

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 U.S. Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791, or you can access additional information at EPA websites: http://water.epa.gov/drink/info/index.cfm and/or http://water.epa.gov/drink/guide/index.cfm

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. Further information concerning the EPA drinking water regulations and children may be accessed at http://water.epa.gov/learn/kids/drinkingwater/kidshealth_index.cfm
(Para ver información adicional, visite al; http://water.epa.gov/drink/aqua/losninos.cfm)

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

City of Spokane Water Department	509-625-7800	http://www.spokanewater.org/
City of Spokane-Environmental Programs	509-625-6570	http://www.greenspokane.org/
Spokane County - Water Resources	509-477-6024	http://www.spokanecounty.org/WQMP/
Spokane Regional Health District – Environmental Health Div.	509-324-1560	http://www.srhd.org/services/environment.asp
Washington State Department of Health - Eastern Regional Office (Drinking Water)	509-329-2100	http://www.doh.wa.gov/ehp/dw/default.htm
Washington State Department of Ecology – Eastern Regional Office	509-329-3400	http://www.ecy.wa.gov/
U.S. EPA Safe Drinking Water Hotline	1-800-426-4791	http://water.epa.gov/drink/

CONTENTS

To obtain free software to read some of these digital files:
Adobe Acrobat files: www.adobe.com/products/acrobat/readstep2.html
Microsoft Word files: http://www.microsoft.com/downloads/details.aspx?FamilyID=3657ce88-7cfa-457a-9aec-f4f827f20cac&displaylang=en

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QUANTITY - Water for the Future

Our Water.
Our Future.
Our Priority.

As a result of the increasing recognition of the limits to 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 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 Services Dept. 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, in stages, a conservation-oriented rate structure. The Water Use Efficiency Rule requires that municipal water suppliers adopt a plan to make more efficient use of their water. Two of the quantifiable elements are discussed in this section.

GOALS

The City of Spokane adopted the Water Stewardship Strategic Plan on May 1, 2006. This Plan includes goals for per capita reductions in water use. The goals are based on per capita consumption for all uses including residential, commercial, industrial, and government. These goals are for reducing the water consumption during a timeframe through 2017, and are specified for seasonal periods of October through March, April through June, and July through September. The goals for these periods are different as is the per capita water use.

The October through March timeframe is typically a period of mostly indoor water use. The amount used during this period is nearest the water use essential for health and safety. Furthermore, a modest, but increasing rate of growth for our community is assumed.

The April through June timeframe is a transitional period from mostly indoor use to increasing outdoor use.

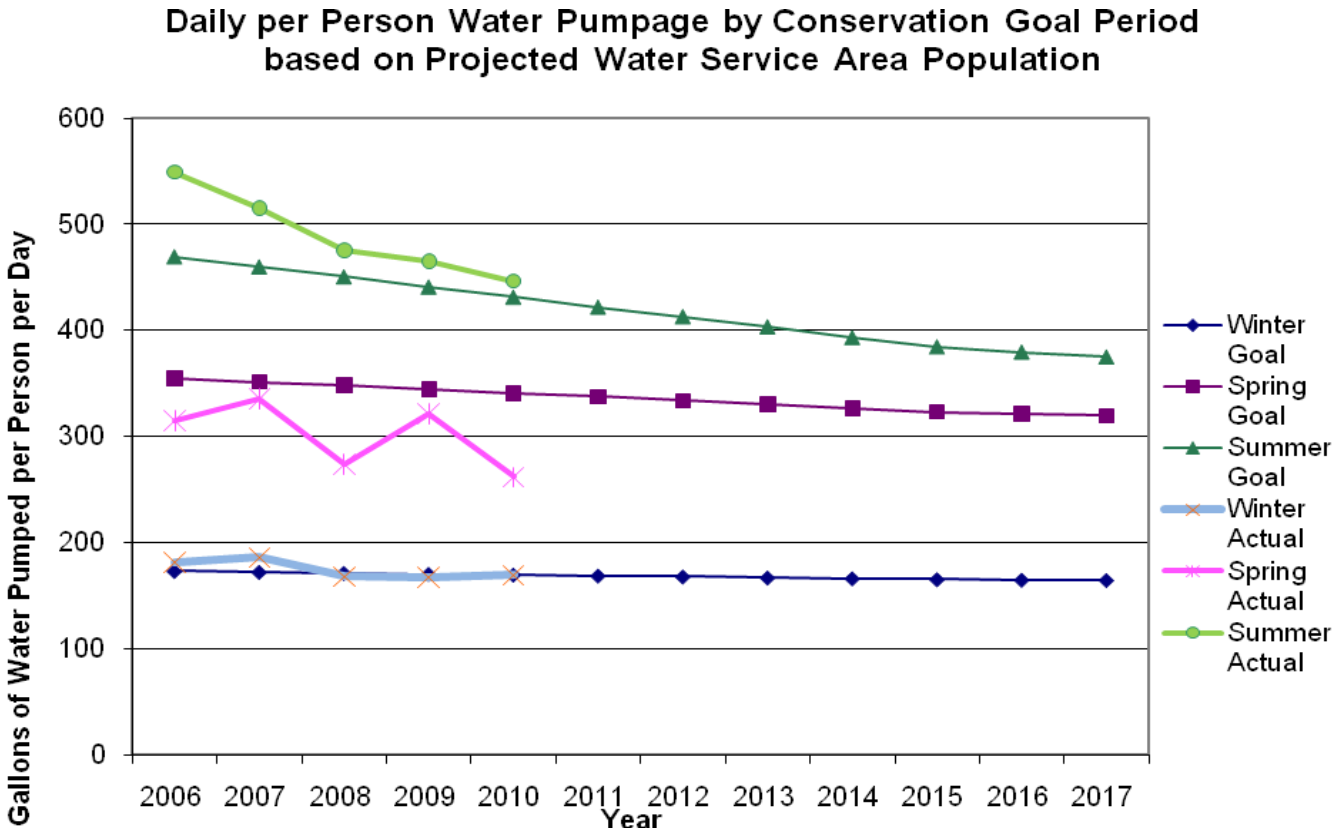
The July through September period is a period of increasing demand for outdoor irrigation. This is also the most critical period for flows in the Spokane River. The per capita reduction in water use for this period is the most ambitious.

The detailed source water pumping totals versus the adopted Water Stewardship Goals are in Appendix I. The following table and graphs illustrates this information for 2010:

WATER YEAR	2010 pumpage (1,000 gallons)		
Period	Total	Goal	Result
October 2009 through March 2010 (winter)	6,778,277	6,870,000	-1.2%
April through June (spring)	5,241,226	6,900,000	-24.0%
July through September (summer)	8,938,048	8,830,000	1.2%
sum of seasonal totals	20,957,551		

The previous table shows the difference between the Goal and the Use as a percentage. A positive value equals exceedances of the goal. Total pumpage for these periods for 2002 - 2010 is available in Appendix I.

It is our estimate that the City, while continuing to show improvement, did not achieve its water conservation pumpage goal for 2010, specifically for the timeframe of July – September 2010. The following graph demonstrates the total pumpage vs. goals for each season for 2006 thru 2010.



In 2010 the City met the conservation goal for the winter period of October 2009 through March 2010. This was the third consecutive year for meeting this conservation goal.

The City of Spokane has consistently met the conservation goal for the months of April, May and June**. The City met its goal for April through June again in 2010.**

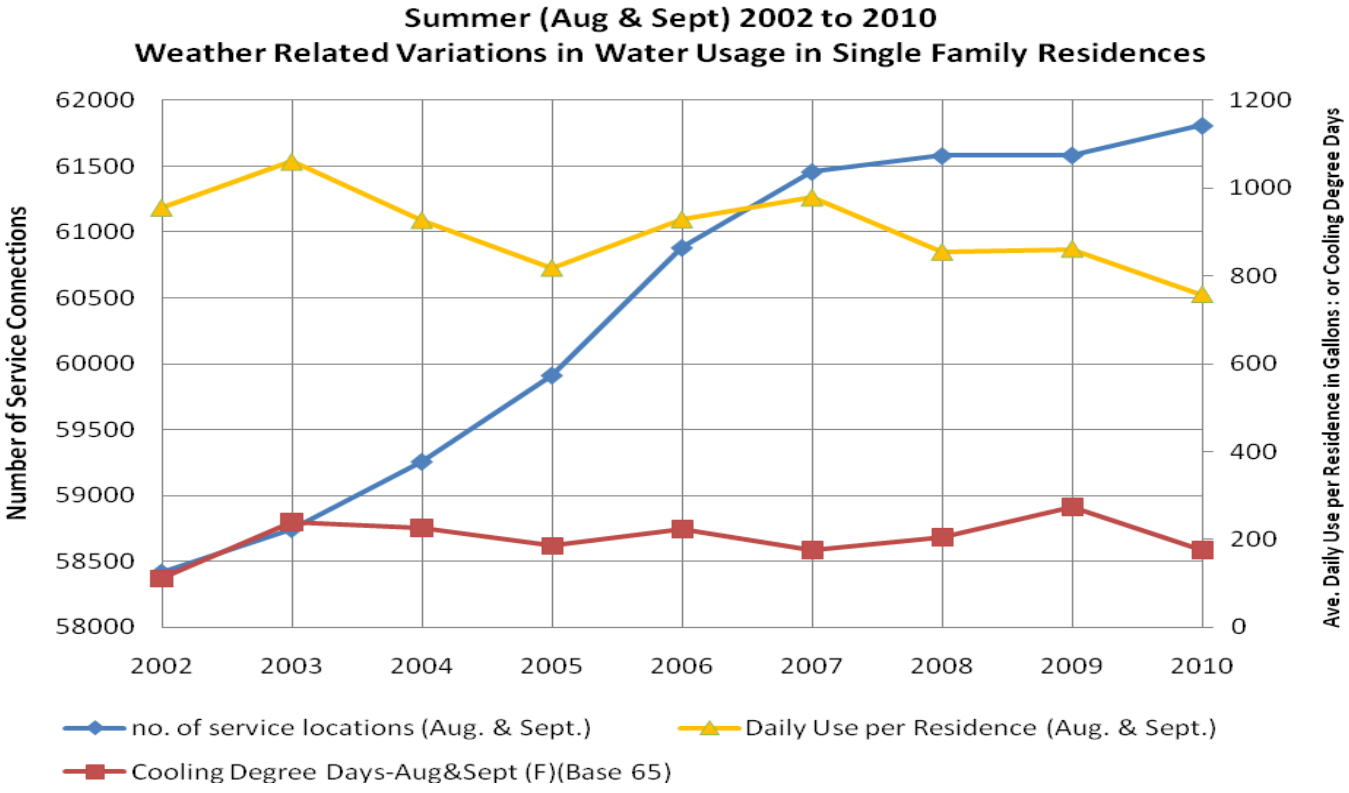
To date, the City has not met its goal for July through September, including 2010. Note that the rate of water use reduction is most ambitious during this season. **Although the City did not meet its goal for July through September in 2010, this was the fifth consecutive year of reduced pumpage.**

It is important to note that the commitment taken on by the City is based on per capita usage and the actual population served in 2010 is not immediately known. However, 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 9 years. Please note that the number of residences is typically lower in the winter because some local residents go south for the winter, and then such residences are not counted as "connections."

	no. of service locations (Jan. & Feb.)	*no. of service locations (Aug. & Sept.)*
2002	57,239	58,418
2003	57,238	58,747
2004	57,978	59,259
2005	58,403	59,914
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

The number of single-family residences has increased at an average rate of 0.71% over the past 9 years. This modest increase is in contrast to the 1.28% per capita increase anticipated in the Water Stewardship Strategic Plan. Only 2005, with a 1.62% increase in residential service connections, had growth greater than the plan anticipates.

In addition to total population served, seasonal weather variations impact water use. The following graph illustrates daily usage (City of Spokane billing records) in single-family residences during the summer for the period 2002-2010:



The preceding graph compares water usage of single family residences with temperature (i.e. cooling degree days). The summer of 2010 had fewer cooling degrees days (was cooler) than the previous 7 years and continued the downward trend in summertime water use of single family residences.

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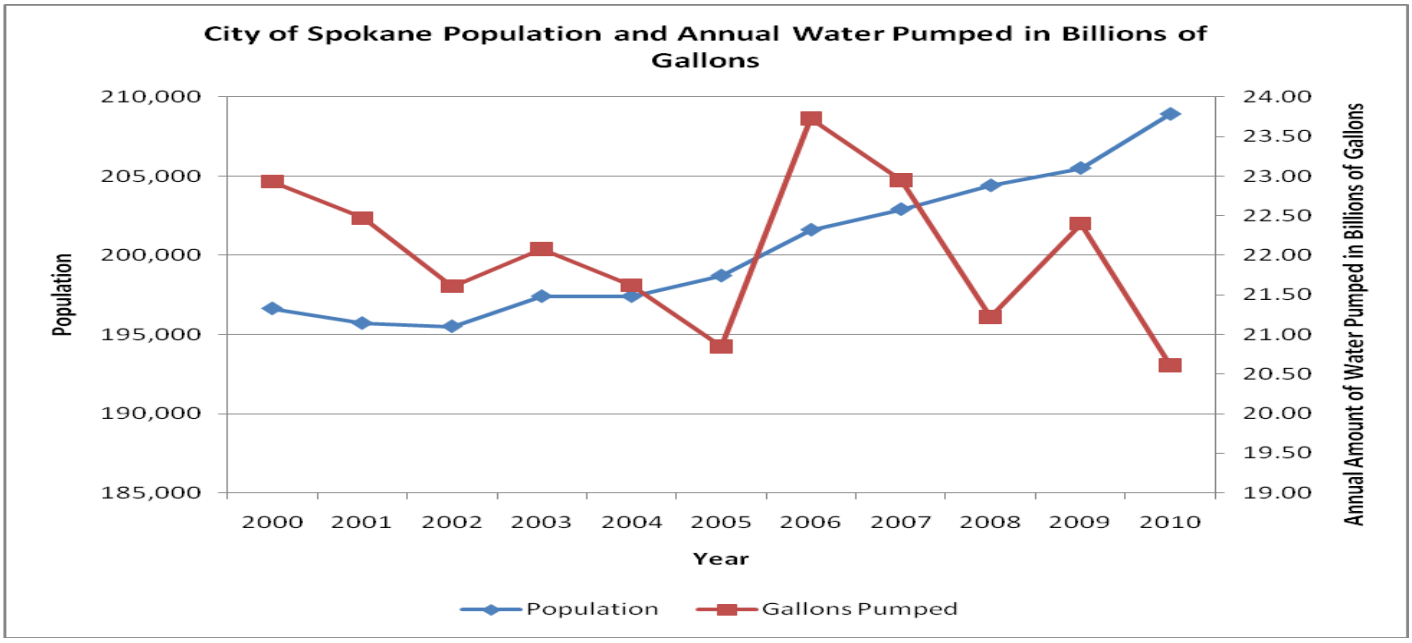
The following table shows the daily usage of single family residences during the winter and summer periods:

	Single family residence	
	Gallons used per day, January & February	*Gallons used per day August & September*
2002	199	956
2003	187	1061
2004	214	927
2005	178	818
2006	206	929
2007	176	979
2008	170	855
2009	186	861
2010	170	758

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.



In 2008 there was an unanticipated reduction in demand from water purveyors, particularly on the West Plains. The water demand increased in 2009 but was still below historical levels. The following table shows the annual total gallons delivered to our wholesale customers:

	Annual Total Intertie Demand, gal.	Percent Change
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 %

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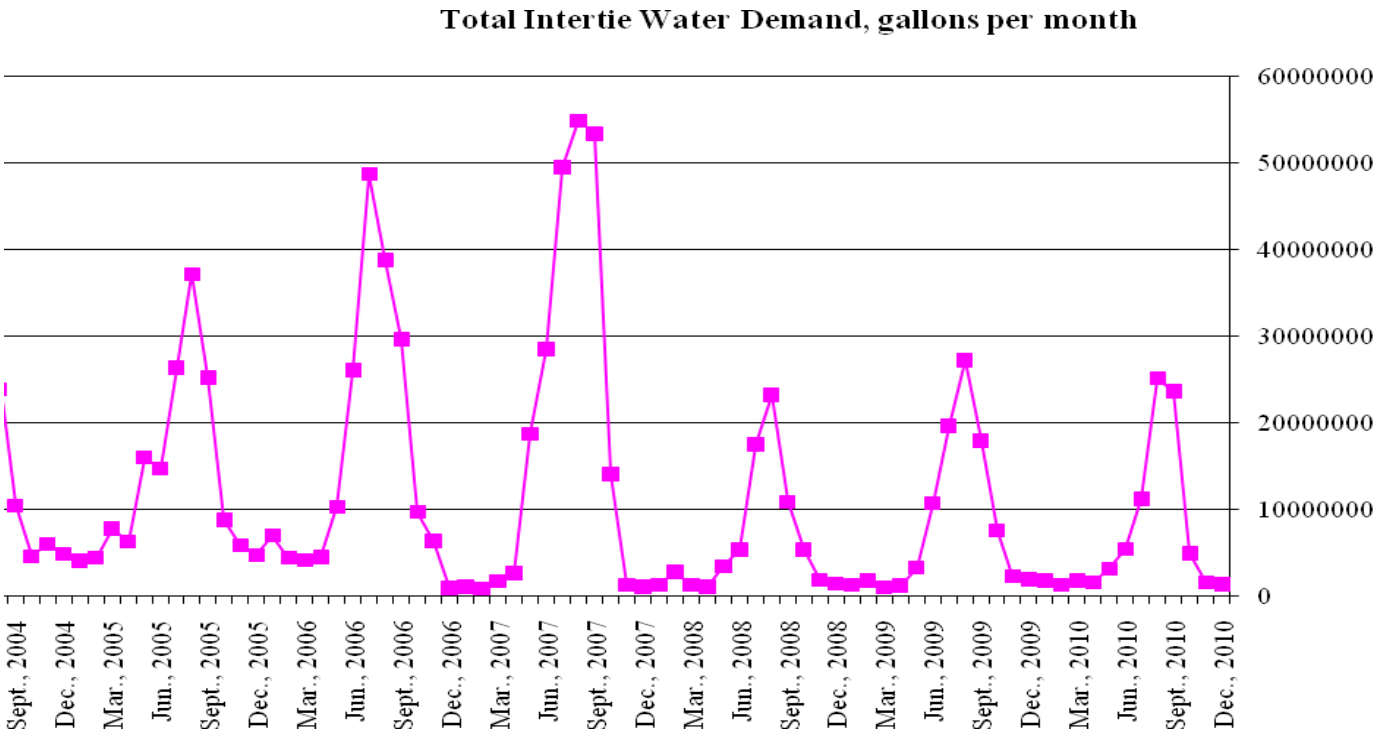
This graph displays the total gallons per month wholesaled to water purveyors outside the City's water service area.



MEANS to ACHIEVE GOALS

The City of Spokane has instituted several programs to achieve conservation goals. The 2010 rebate programs encouraged both indoor and outdoor conservation to meet the goals. The indoor conservation program, coordinated with Spokane County provided 1487 rebates of $100 for WaterSense high efficiency toilets and Energy Star clothes washers. Each single family residential household was allowed up to two toilets and one clothes washer. The City instituted a Sprinkler Controls Upgrade incentive program. This program provided rebates to single family, multifamily and commercial customers for installing smart controls such as rain shutoff switches and evapotransporation controllers. 129 water customers participated in the program. The City also distributed more than 600 mechanical hose timers. These devices conserve irrigation water by allowing a user-limiting time of sprinkling. To help encourage indoor water conservation the City distributed 200 conservation kits comprising a low flow showerhead and low flow faucet aerators for the kitchen and bathroom. In addition to the rebate programs the City of Spokane continued its many public education events. This included sponsoring the water conservation night at the Spokane Chiefs hockey game. The Water Stewardship Program funded a regional multimedia campaign to encourage summer outdoor water conservation.

For further information check these three websites: EPA-WaterSense Program (http://www.epa.gov/watersense/) H2OUSE-Watersaver Home (http://www.h2ouse.net/) and the City of Spokane Water Stewardship Program, at http://www.waterstewardship.org/

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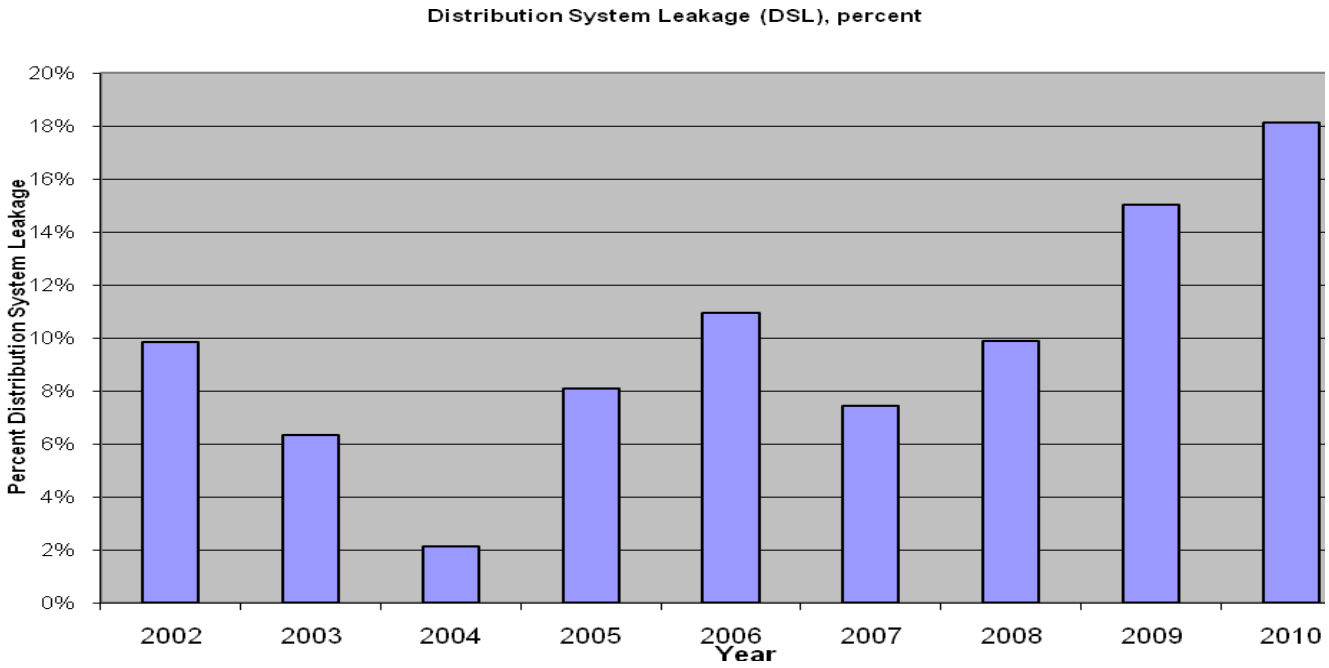
DISTRIBUTION SYSTEM LEAKAGE (DSL)

The Water Use Efficiency Rule requires the calculation of system water loss (leakage). Prior to this calculation, water systems are also 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 volume and as 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, fire-fighting, and water system maintenance (flushing). This estimate was reassessed in 2009.

The method for DSL calculation and the data for the calculation are in Appendix I, pg. 33. The volume and percent DSL for the last three years are as follows:

	2008	***2009***	***2010***	***Average***
DSL, percent	9.9%	15.0%	18.1%	14.4%
DSL, volume (gallons x 1000)	2,094,593	3,371,258	3,739,318	3,068,390

The most direct means to comply with the Water Use Efficiency Rule standard for DSL is for the 3-year running average to be less than 10% [2] . **The DSL for the City of Spokane Water System is 14.4 %, which does not meet the standard.** This year's and 2009 Distribution System Leakage are substantially different from previous years. This marked increase is a result of the City's work to more accurately measure the gallons produced and the gallons delivered to our customers. The City will continue to encourage the responsible use of our water resources, continue to assess accuracy of our reporting, and implement projects to reduce our system leakage. Following is a graph depicting the annual DSL for 2002-2010:



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

Quality Drinking Water
An Invaluable Community Resource

INORGANICS

The City typically has a Washington State Department of Ecology certified 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 certified 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 effective date for compliance with the new Maximum Contaminant Level (MCL) of 10 ppb was in 2006. **The arsenic readings in 2010 at the Central and Well Electric Wells were 3.24 ppb and 4.22 ppb respectively.** For City drinking water, 5.13 ppb of Arsenic in 2009 from Ray Street Well represents the highest result to date. A 2007 result from Well Electric (4.92 ppb) was the previous high.

City 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.

Reported detections of arsenic by drinking water certified laboratories are a fairly recent occurrence for the City (first in 2001) and are primarily a result of improved laboratory reporting limits. All source wells were sampled 2 to 3 times at this improved reporting limit during the period 2001-2005. The results ranged from less than the detection limit of 1 ppb to 4.49 ppb.

The EPA had set the MCL for arsenic at 50 ppb in 1975. The new MCL for arsenic was published in a Final Rule on January 22, 2001, and it set the MCL for arsenic at 10 ppb, effective 2006. The Maximum Contaminant Level Goal (MCLG) continues to be zero. After the publication of the Final Rule, the EPA initiated review of the standard for arsenic to reassess the balance between the cost to water utilities of removing arsenic from drinking water and the medical/social costs for the portion left unremoved. The EPA announced on October 31, 2001, its decision to move forward in implementing the standard for drinking water at 10 ppb.

Further information concerning health impact issues, regulatory requirements, and compliance costs for water utilities/water customers can be found at http://water.epa.gov/lawsregs/rulesregs/sdwa/arsenic/index.cfm and www.doh.wa.gov/ehp/dw/fact_sheets/Arsenic_in_Drinking_Water_questions.htm.

ASBESTOS

Compliance testing for asbestos is no longer required because the City Water Department no longer has any asbestos-containing (AC) pipe in service. Historically, only a small portion (one third of one percent) of the City's water distribution system east of Havana and south of Trent was comprised of asbestos-cement pipe. The asbestos-containing

(AC) pipe had been in service for many decades. The City Water Department Yardley Project replaced 13,603 feet of asbestos-cement pipe.

Testing for asbestos involves counting the number of fibers greater than 10 micrometers in length. On October 29, 1996, and on October 26, 1999, the City took a sample of water from a location in the distribution system being served by asbestos-cement pipe. In 1996, the laboratory detected one fiber and this led to the laboratory reported result of 194,000 asbestos fibers per liter and in 1999 no fibers were detected, which resulted in "less than 98,000 fibers per liter" reported. The MCL is 7 million fibers per liter.

IRON

The iron results for 2010 at the Central and Well Electric wells were below the detection limit (< 0.060 mg/L).

In 2007, there was a detection of iron (0.23 mg/L) in a duplicate sampling for Well Electric, which was attributable to interference in the analysis[3].

There was an iron result from the Nevada St. Well on July 29, 2003, of 0.497 mg/L. This exceeded the Secondary MCL of 0.3 mg/L. Secondary Drinking Water Standards are based on factors other than health effects. As such, these regulated contaminants may cause cosmetic effects or aesthetic effects in drinking water. It was determined that the exceedance was caused by a temporary dislodging of substrate (i.e. sand and silt) from the bottom of the well. Repeat sampling in October was < 0.1 mg/L, which is more typical of aquifer background concentrations.

NITRATE-NITROGEN

The Ray St. Well continues to be monitored quarterly for Nitrate-N. **In 2010, the highest certified lab quarterly result for the Ray St. Well was 3.53 mg/L.** 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 3.86 mg/L. The quarterly results for Ray St. Well for 2010 are as follows:

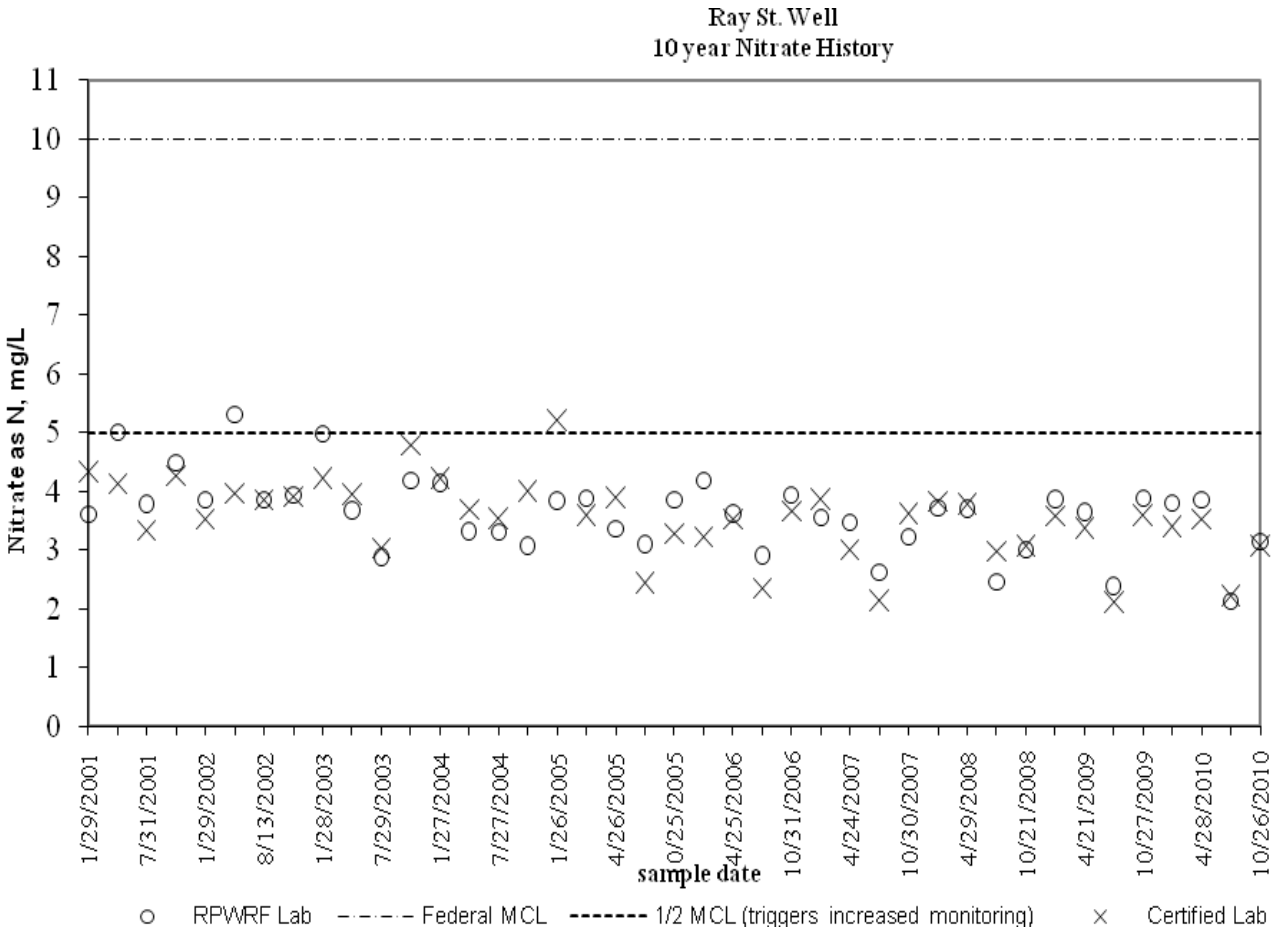
Sample Date	*Certified Laboratory Result - Nitrate-N, mg/L*	*RPWRF Laboratory Result – Nitrate+Nitrite-N, mg/L*
26-January-2010	3.40	3.80
28-April-2010	3.53	3.86
27-July-2010	2.22	2.13
26-October-2010	3.07	3.15

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.

The historical data for this well reflects a slow trending from less than 1 mg/L in the 1950s to typically 5 mg/L or less currently, and demonstrates that, while elevated compared to other city wells, the nitrate nitrogen level at Ray Street well appears to have peaked and is still within allowable standards.

[3] The laboratory used Inductively Coupled Plasma-Mass Spectroscopy. Argon Oxide, an inherent contaminate because Argon is the plasma for the method, interferes with the Iron result making it incorrectly positive. The laboratory stated that it was not allowed to correct for this interference.

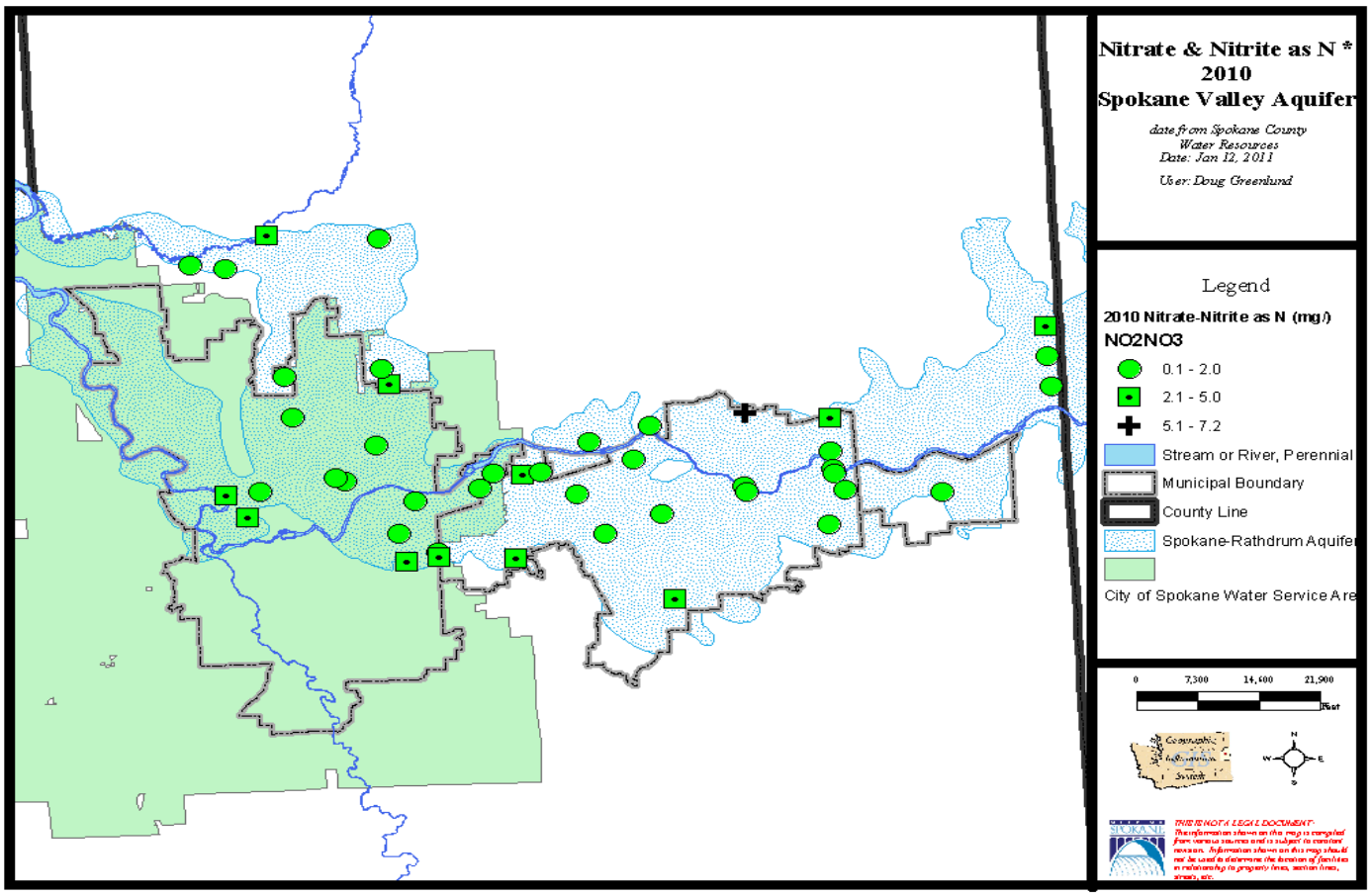
The results for the most recent 10 years of testing for nitrate-nitrogen at the Ray Street Well, from certified labs and from the RPWRF Laboratory, are presented in the following graph. As you will note from the graph, the trend for nitrate-nitrogen at the Ray Street Well has remained constant to slightly declining for a number of years.



All other City sources average 1.13 mg/L for 2010, less than a fifth of the MCL for nitrate-nitrogen. The 2010 results for the other City source wells are as follows:

Source Well	*Certified Laboratory Result - Nitrate-N, mg/L*	*RPWRF Laboratory Result – Nitrate+Nitrite-N, mg/L*
Well Electric	1.41	1.22
Parkwater	1.36	1.25
Hoffman	1.33	1.14
Grace	0.80	0.67
Nevada	0.90	0.77
Central	0.95	0.84

The following map depicts the results of monitoring wells sampled during 2010 by the Spokane County Water Resources Program. The results are for nitrate+nitrite as nitrogen from monitoring wells, 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. For the fourth consecutive year, samples at a monitoring well near East Valley High School exceeded 5 mg/L, half of the MCL of 10 mg/L. A long-term trend will need to be assessed, but preliminary analytical results and well drilling descriptions indicate the groundwater at this location is not completely mixed with the Spokane Aquifer. There are a number of wells that had results between 2.5 and 5 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.



When present in excess of the MCL, nitrate in drinking water can cause a serious blood disorder (methemoglobinemia), usually in infants. Infants under one year of age should not drink water exceeding the drinking water standard (MCL) of 10 parts per million (ppm) of nitrate expressed as nitrogen. Although no health-based standards exist for adult exposures, the following people may be at risk:

- Individuals with reduced gastric acidity.
- Individuals with a hereditary lack of methemoglobin reductase.
- Women who are pregnant.

For further information concerning nitrate in drinking water and the potential health issues, you can access the EPA website at http://water.epa.gov/drink/contaminants/basicinformation/nitrate.cfm or the Washington State Dept. of Health website at http://www.doh.wa.gov/ehp/dw/Publications/331-214.pdf.
(Para ver información adicional, visite al; http://www.doh.wa.gov/ehp/dw/Publications/331-214s.pdf)

LEAD - COPPER

Lead and Copper testing of sources and at-risk residences were conducted in 2009. The highest reading of lead in a home was 8.06 ppb. The maximum reading for copper was 167 ppb. These results for lead and copper continue to be substantially less than the 15 ppb Action Level for lead and the 1300 ppb 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 2009 source water testing for lead was 0.3 ppb and for copper was 5.63 ppb.** The next scheduled testing for Lead and Copper in at-risk residences is 2012.

In 1992, the City completed the initial phase of testing for compliance with the Lead - Copper Rule. The City's 8 well stations 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 ppb with the exception of one reading at 30 ppb. The federal government has a 0 ppb Maximum Contaminant Level Goal (MCLG) for lead and a 1300 ppb 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. In addition to 1992, in 1995, 1996, 1997, 2000, 2003, 2006, and 2009 50 at-risk homes were checked each summer. Fewer than 10% of at-risk homes had levels in excess of 8 ppb of lead and 200 ppb of copper. These levels were below the Federal 90th percentile action levels of 15 and 1300 ppb respectively. Federal regulations require that 90% of the tested homes be below these levels. The highest readings detected in homes were 71 ppb for lead and 540 ppb for copper.

City records indicate that some 981 homes built during World War II 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. Currently, 574 lead alloy connections remain in service.

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. We encourage 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 Dept. of Health website at www.doh.wa.gov/ehp/dw/Programs/lead.htm and http://www.doh.wa.gov/ehp/dw/Publications/copper-dw.htm.

PHOSPHORUS

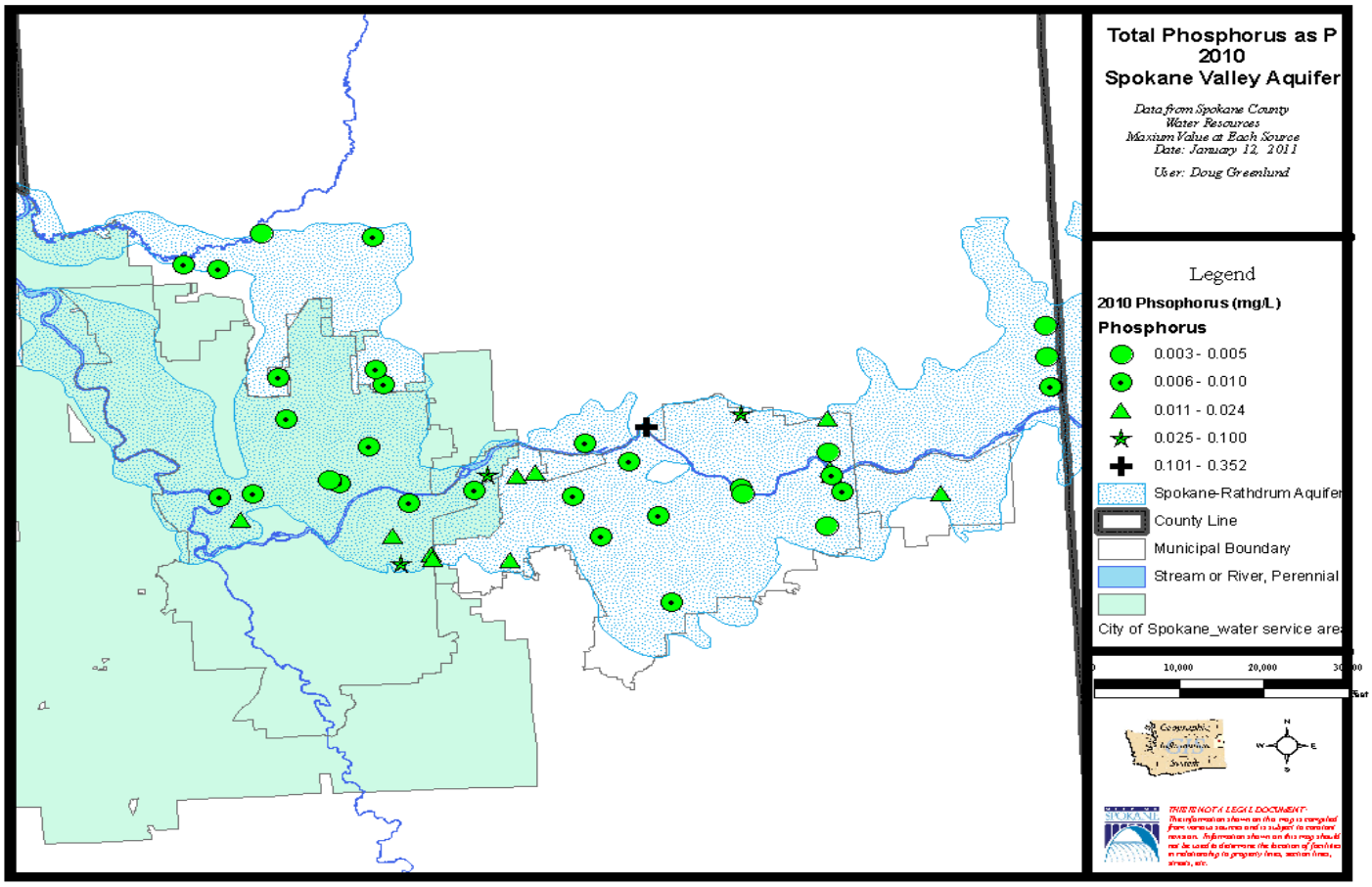
Drinking water regulations typically deal solely with human health related impacts. Phosphorus is not a drinking water regulated contaminant, but is of significant concern in this region as a pollutant of concern in the Spokane River. Local groundwater makes significant contribution to the River and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

In July 2010, 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 St. Well was 0.006 mg/L. Ray St. Well was sampled four quarters, and the greatest result was .032 mg/L.** There is no drinking water regulatory limit for phosphorus, but to give this some context, the

Total Maximum Daily Loading 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.

Location	*Date Sampled*	*PO4-P, mg/L **	*Location*	*Date Sampled*	*PO4-P, mg/L **
Electric	7/27/2010	0.0089	Central	7/27/2010	0.0048
Parkwater	7/27/2010	0.0046	Ray Street	1/26/2010	0.032
Nevada	7/27/2010	0.0083	Ray Street	4/28/2010	0.021
Grace	7/27/2010	0.0044	Ray Street	7/27/2010	0.020
Hoffman	7/27/2010	0.0048	Ray Street	10/26/2010	0.021

During 2010, the Spokane County Water Resources Program took over 200 samples from 49 locations for Total Phosphorus (including duplicate samples at several locations). Of that number, 36 samples from 12 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;



The preceding 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 to <u>not</u> 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 2010, the City of Spokane tested all seven source wells for Radium 228 and Gross Alpha. There were no detections of Radium 228 above the federal detection limit of 1 pCi/L. The Gross Alpha particle activity was below the Federal MCL of 15 pCi/L at all of the wells. The Gross Alpha result from Parkwater was greater than 5 pCi/L; therefore the sample was tested for Radium 226. Radium 226 was not detected at a detection limit of 0.5 pCi/L.

Well	*Sample Date*	*Radium 228 , pCi/L*	*Gross Alpha pCi/L*	*Radium 226 pCi/L*
Central	04/28/2010	< 0.5	3.8	
Grace	07/27/2010	< 0.5	2.1	
Hoffman	04/28/2010	0.1	3.5	
Nevada	07/27/2010	0.5	3.6	
Parkwater	07/27/2010	< 0.5	6.1	< 0.5
Ray St.	07/27/2010	< 0.5	2.1	
Well Electric	04/28/2010	0.7	4.7	

The Radionuclide Rule finalized in 2000 specified testing and reporting times for Gross Alpha particle activity, Combined Radium 226 and Radium 228, Uranium , and Beta particle and photon emitters. The Gross Alpha Particle activity levels are reported in the table above. 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. 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 has not tested for Uranium. Beta particle and photon emitter testing is only required of a few vulnerable water systems, the City has not been required to do this testing.

For the purpose of calculating the Combined Radium 226 and Radium 228, zero was used as the Radium 228 value because all of the results were below the federal detection limit of 1 pCi/L. Therefore the Combined Radium 226 and Radium 228 was the Gross Alpha Particle activity at each well station except for Parkwater which has a Radium 226 result.

The Federal MCL for Gross Alpha particle activity is 15 pCi/L. The MCL for Gross Beta particle activity and photon emitters is 4 millirems per year. Millirems is a measure of human exposure to radiation. The MCL for uranium is 30 µg/L. The Federal MCL for Radium 226 and Radium 228 (combined) is 5 pCi/L.

For more information on radionuclides in drinking water, access the EPA website at http://water.epa.gov/lawsregs/rulesregs/sdwa/radionuclides/index.cfm

RADON

The Water Dept. monitored its source wells for Radon in 2008, the results are as follows:

Well	*Sample Date*	*Radon , pCi/L*	*Sample Date*	*Radon , pCi/L*
Central	4/29/2008	534	7/29/2008	468
Grace	7/29/2008	284	10/21/2008	440
Hoffman	8/4/2008	488	10/21/2008	467
Nevada	4/29/2008	426	7/29/2008	473
Parkwater	4/29/2008	534	7/29/2008	534
Ray St.	4/29/2008	503	7/29/2008	452
Well Electric	4/29/2008	402	7/29/2008	212

Quarterly readings of radon at the Parkwater Well averaged 475 pCi/L in 1993 and 436 in 1997. Other City sources, with the exception of the Grace Well, were checked in 1992 for radon and results ranged from 210 to 510 with a mean of 392 pCi/L. The City sampled the drinking water wells during 1999 and 2000 to characterize radon concentrations. These radon concentrations, averaged for each well, ranged from 261 pCi/L (Hoffman Well) to 438 pCi/L (Central Well). The radon concentrations found in the 2005 sampling event, averaged for each well, ranged from 495 pCi/L (Central Well) to 517 pCi/L (Parkwater Well).

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. In preparing for this report (February 2011), a review of the Unified Agenda of Federal Regulatory and Deregulatory Actions shows the status of the radon regulation final action "To Be Determined." For more information on the status of this rule you can go to http://www.reginfo.gov/public/do/eAgendaViewRule?pubId= 201010&RIN= 2040-AA94

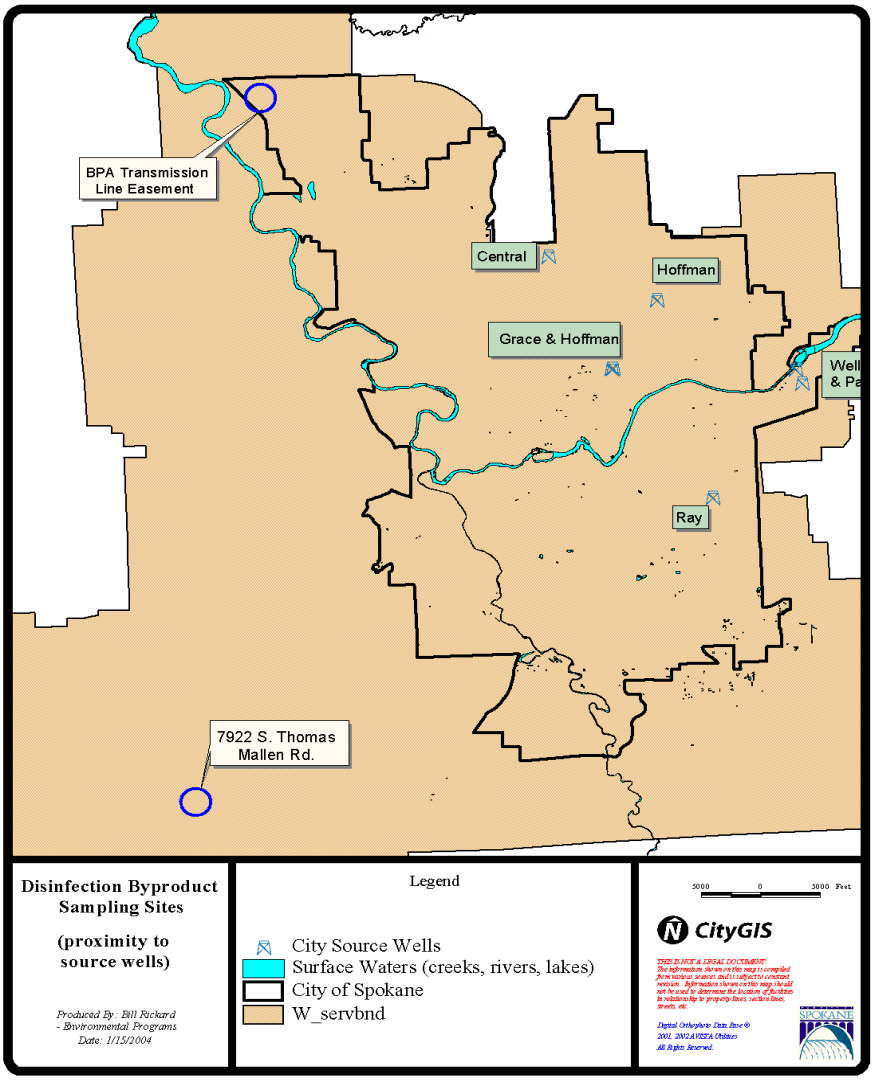
Radon gas is one of a number of radioactive elements that result from the radioactive decay of uranium found locally in natural deposits. Exposure to excessive amounts of radon may increase cancer risk. Most of these risks result from exposure to radon in indoor air. The EPA has determined that 1-2% of the radon in indoor air comes from drinking water. For further information concerning radon in drinking water, access the EPA website at http://www.epa.gov/radon/rnwater.html. For more general information concerning radon in the environment and the associated health issues, access the EPA website at www.epa.gov/radon/index.html 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/pubs/citguide.html.

ORGANICS

DISINFECTION BY-PRODUCTS – DISTRIBUTION SYSTEM

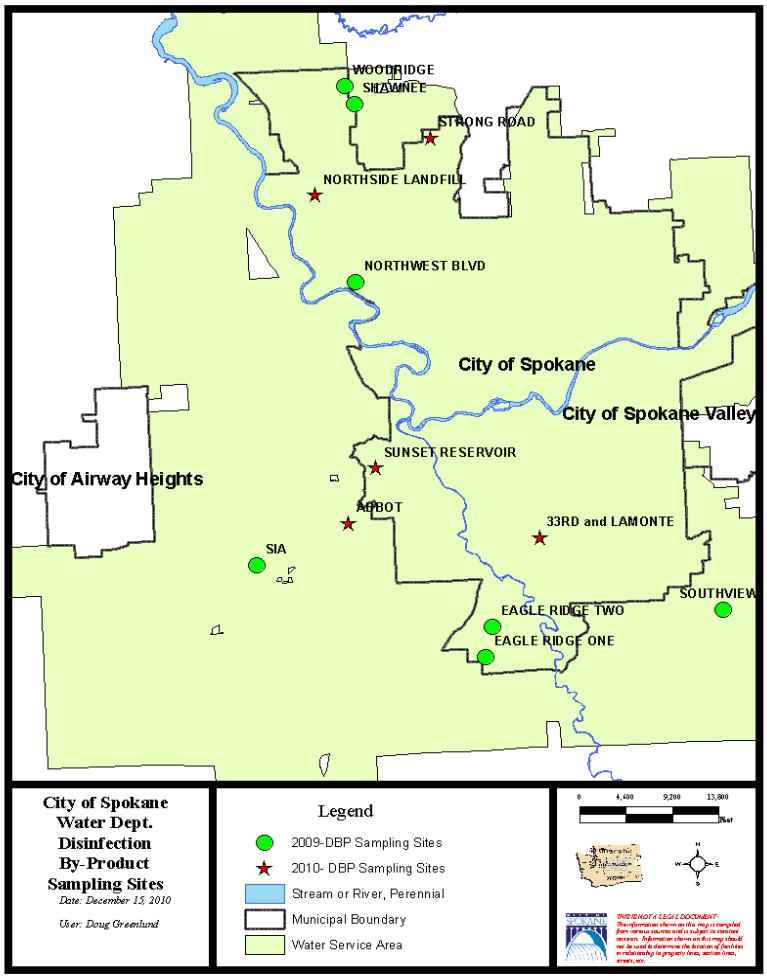
The maximum value during 2010 compliance monitoring of the distribution system for Total Trihalomethanes (TTHM) was 1.57 ppb and for Haloacetic Acids (HAA5) was no detection. This is well below the Federal MCLs and only detected at the extreme end of the distribution system. The 2004 and 2005 results (Appendix V) were used to determine the requirements for the City's water system to comply with the Stage 2 Disinfection By-Products Rule, which became final in January 2006.

The City uses small amounts of chlorine as a drinking water disinfectant. Data on chlorine by-products in the distribution system (such as trihalomethanes) indicates that for the most part, such compounds are not at levels above 1 ppb except out at the far ends of the distribution system. The 1998 Information Collection Rule (ICR) testing for the sum of Haloacetic Acids (HAA5) and for Trihalomethanes (TTHM) resulted in maximums of 5.8 ppb and 3.5 ppb, respectively. The federal MCL is 80 ppb for total Trihalomethanes and 60 ppb for the sum of five Haloacetic acids.



In 2004, the City of Spokane Water Dept. started Disinfection Byproducts Rule routine quarterly monitoring in the distribution system for TTHM and HAA5. The Water Department developed a sampling plan, which identified sampling location(s) that reflected the maximum residence time for water in the distribution system. It was determined that the maximum residence time changed in response to increased irrigation use during the summer/autumn months, requiring two sampling locations.

The Mallen Reservoir, near the west extreme of the City Water Service Area, is regarded as having the longest residence time in the system and is the location for Winter and Spring quarterly monitoring. Increased nearby irrigation during the summer/fall reduces this residence time. The BPA Transmission Easement, near the north city limits, has a longer residence time during these periods, and is the sampling location during Summer and Fall quarterly monitoring. The figure shows the relative positions of these sampling locations.



The City has submitted a certification stating the early monitoring data was less than half the MCL for these contaminants, and the City will develop a monitoring plan to take effect in 2012. Starting in 2007 and continuing until 2010 the City Water Department has 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. The map to the left shows the 2009 and 2010 sampling locations. The results from the four years of monitoring will be used to determine the future Phase 2 sampling sites. For more information on the Stage 2 DBP rule go to the EPA website http://water.epa.gov/lawsregs/rulesregs/sdwa/stage2/index.cfm

The following table has results from the 2009 and 2010 DBP assessment monitoring:

Sampling date	January 14, 2009			August 13, 2009		
Sample location	Chlorine residual, mg/L	TTHM, µg/L	HAA5, µg/L	Chlorine residual, mg/L	TTHM, µg/L	HAA5, µg/L
Eagle Ridge I (HAA5)	0.18	n/a	< 1	0.28	n/a	< 1
Eagle Ridge II (TTHM)	0.20	1.42	n/a	0.23	1.34	n/a
NW Boulevard	0.23	< 0.5	< 1	0.29	< 0.5	< 1
Shawnee (HAA5)	0.20	n/a	< 1	0.28	n/a	< 1
Southview	0.15	2.26	< 1	0.23	2.55	< 1
SIA	0.21	< 0.5	< 1	0.31	< 0.5	< 1
Woodridge (TTHM)	0.15	1.66	n/a	0.25	< 0.5	n/a
Sampling Date	February 9, 2010			July 26, 2010		
Sample Location	Chlorine residual, mg/L	TTHM, µg/L	HAA5, µg/L	Chlorine residual, mg/L	TTHM, µg/L	HAA5, µg/L
Sunset	0.21	1.85	< 1	0.30	< 0.5	< 1
33rd and Lamont	0.22	< 0.5	< 1	0.28	< 0.5	< 1
Strong	0.15	1.65	< 1	0.26	< 0.5	< 1
NW Landfill	0.19	0.50	< 1	0.28	< 0.5	< 1
Abbott	0.20	1.33	< 1	0.31	0.51	< 1

n/a=not applicable.

During 1998, the City of Spokane completed Information Collection Rule testing. This federal testing and reporting program was aimed at identifying source water contaminants that are treatable with disinfectants, identifying types of disinfectants being used, identifying resulting disinfection by-products produced, and identifying the quantity of these by-products reaching consumers. The testing locations and a summary of the 1998 results are located in Appendix VII. On October 7, 1997, the EPA agreed that City source water testing had demonstrated there was little in the aquifer water to remove and agreed that additional studies on means of treatment before disinfection were unwarranted.

MtBE (Methyl tert-Butyl Ether)

Well Electric was monitored for MtBE in 2010 in conjunction with the regularly scheduled Volatile Organic Compounds (VOC) monitoring. There were no detections at a detection limit of 0.5 µg/L. In addition to regularly scheduled monitoring events, Grace and Nevada Well Stations were sampled monthly from August 2007 to August 2008 for VOC, and there were no detections of MtBE.

The EPA does not currently regulate MtBE, but it was placed on the Contaminant Candidate List (CCL) http://water.epa.gov/scitech/drinkingwater/dws/ccl/ccl1.cfm#chemical (and subsequently on the UCMR-Round 1 List 1). As such, the City of Spokane sampled MtBE under the UCMR in 2002 & 2003. There were no detections in 8 samples (see Appendix VIII).

In 2006, Parkwater, Nevada, and Ray well stations were monitored for MtBE, with no detections. In 2000, the Hoffman and Ray wells were tested for MtBE, with no detections. In 1999, the City tested for MtBE at the Central and Nevada wells in the 1st quarter and Well Electric and Parkwater in the 4th quarter. There were no detections in any of the four samples, with the detection limit of 0.5 ppb. Also in 1999, Spokane County tested 10 aquifer monitoring wells for MtBE. The dedicated monitoring wells were selected for their proximity to large above-ground fuel storage facilities. Again, there were no detections in any of these samples, with a detection limit of 0.5 ppb.

MtBE has been used in gasoline across the nation since the 1970s, first as a replacement for lead and then as an oxygenation source and/or an octane booster (in premium fuel blends). Further information concerning the uses of MtBE can be found on the EPA website www.epa.gov/mtbe/ . Many parts of the country with requirements for oxygenated automobile fuel have experienced MtBE contamination in local groundwater supplies as a result of leaking above-ground and underground fuel tanks and/or fuel spills. The requirement for winter oxygenation has been eliminated in Spokane County. Historically ethanol (ethyl alcohol) was the commonly used oxygenate in our area. Consequently, the local risk of MtBE contamination is considered to be low.

There is currently a drinking water advisory for MtBE http://water.epa.gov/action/advisories/drinking/mtbe.cfm. This Advisory recommends a range of 40 µg/L or less based on potential taste and odor consumer acceptance. 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 http://www.epa.gov/mtbe/water.htm.

OTHER VOLATILE ORGANICS

Appendix VI contains the history of ORGANIC CHEMICAL DETECTIONS summary for each well station that contributes to the City Water System. Only organic compounds that have previously been detected in City water are listed. Many compounds have been tested for and not detected - see Appendix I: "TESTS RUN ON CITY OF SPOKANE WATER."

In 2010 the City of Spokane tested the Well Electric station for Volatile Organic Compounds (VOC). There were no detections.

An unusual incident occurred on July 23, 2007. A fully involved structure fire occurred at the Whitley Fuel facility at 2733 N. Pittsburg. Due to the volumes of petroleum fuel in on-site tanks and tanker trucks, and the fire-fighting foam used in the incident, there was concern that related contaminants might travel to groundwater. The Grace and Nevada wells are west of this location, and the City groundwater model indicated that it was unlikely that contamination would reach these wells, but could not rule out the potential chance and anticipated a 7 to 10 month time of travel to these wells. Investigation at the fire scene indicated that there was little likelihood that contaminants reached groundwater, but weekly monitoring at the Grace and Nevada wells was initiated. County sampling at a nearby sentinel monitoring well on August 21, 2007 resulted in a detection for Diesel-range Total Petroleum Hydrocarbon at 0.130 mg/L. Sampling for Volatile Organic Compounds (including Tentatively Identified Compounds) and Diesel-range Total Petroleum Hydrocarbons were conducted at Grace and Nevada wells on an approximately weekly basis from July 31, 2007, to September 26, 2007. The sampling frequency was decreased to monthly from October through August 2008. There have been no detections at the Grace and Nevada wells and no further detections at the sentinel monitoring well.

The VOC monitoring conducted on July 27, 2004, at Hoffman well included a detection (3.09 ppb) of Tetrachloroethene (aka Perchloroethylene or "Perc"). City staff conducted an investigation of the immediate vicinity (the Well Station property and adjacent neighboring properties). Interviews with Water Dept. 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. Additional sampling was conducted on September 1, 2004, and on October 26, 2004. Both results were less than detection limits. The State Dept. of Health agreed that this excursion did not represent a legitimate characterization of drinking water. The two monitoring events in 2005 at Hoffman concluded four quarters of voluntary monitoring, with no detections of VOC contaminants.

Historically, Central, Grace, Nevada, and Ray well stations have had detections (not exceedances) of regulated volatile organic compounds, other than Trihalomethanes. 1,1,1-Trichloroethane and Tetrachloroethene were detected more than 5 years ago. These detections were well below the MCLs. 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. There was no previous detection of this compound, and there have not been detections in subsequent testing.

On July 25, 2000, the Hoffman well was sampled for VOCs, and the test results showed a detection for dichloromethane of 1.50 ppb. The MCL is 5 ppb 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 ppb. As this compound is a common laboratory contaminant and present in the blank at over twice the sample result, the Dept. of Health concurred with our assessment that this does not characterize an actual detection in the source water.

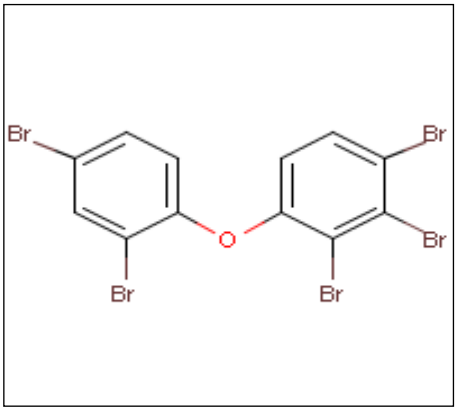
Trihalomethanes (THMs, chloroform, bromoform, bromodichloromethane, dibromochloromethane) are one group of volatile organic, disinfection by-products. That is to say, they can originate from chemical interactions between a disinfectant (chlorine gas in the City's system) and any organic matter present in the raw water. **There were no detections of THM in source water monitoring for 2010**, and the most recent detection in source water was in 2000 when the Hoffman result for total THM was 1.92 ppb. This is well below the new MCL of 80 ppb, which was effective December 1998. Testing results for Trihalomethane, Total Trihalomethane, and Maximum Total Trihalomethane Potential are included in Appendix VI.

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems and may have an increased risk of getting cancer. In February 1998, a California Department of Health Services study linking Trihalomethanes to spontaneous miscarriages was widely reported. The study levels were 75 ppb Total Trihalomethanes and 18 ppb Bromodichloromethane. The maximum historical City readings for comparison were 8.5 ppb and 1.7 ppb respectively.

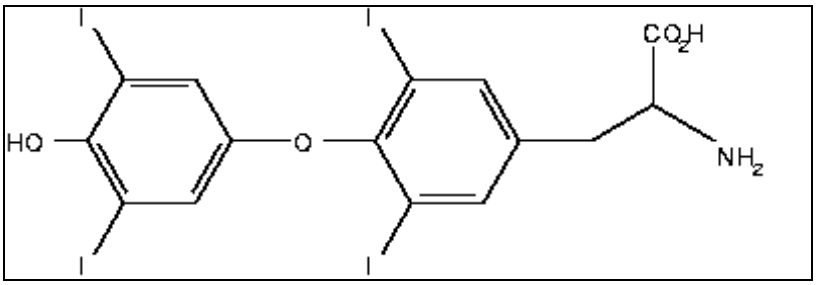
PBDE (Polybrominated diphenyl ethers)

Ecology and Wash. Dept. 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, the Water Dept. conducted investigative monitoring for PBDE.

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. The illustrations below show the structural similarity between a congener of PBDE, and a thyroid hormone (thyroxine). The similarities in structure may indicate the potential health effects of PBDE. However, actual health effects in humans are not clear at this time.



Left figure: PBDE 85-copyright U.S. Library of Medicine



Right figure: thyroxine – Wikipedia online encyclopedia

The results of one sample (note: results are in parts per trillion) obtained from Well Electric are as follows:

PBDE congeners	*Congener abbr.*	*Results, ng/L*
2,4,4'-Tribromo diphenyl ether (ng/L)	BDE-17	< 0.1
2,2',4,4'-Tetrabromo diphenyl ether (ng/L)	BDE-47	0.36
2,2',4,4',5-Pentabromo diphenyl ether (ng/L)	BDE-99	< 0.1
2,2',4,4',6-Pentabromo diphenyl ether (ng/L)	BDE-100	0.5
2,2',4,4',5,5'-Hexabromo diphenyl ether (ng/L)	BDE-153	< 0.1
2,2',4,4',5,6'-Hexabromo diphenyl ether (ng/L)	BDE-154	< 0.1
2,2',3,4,4',5,6-Heptabromo diphenyl ether (ng/L)	BDE-181	< 0.1
Decabromo diphenyl ether	BDE-209	< 0.1

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 will occur in the UCMR Round 2 (further discussion on page 24). 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/oppt/pbde/

SYNTHETIC ORGANICS

In 2010, the City of Spokane was not required to sample its source wells for Synthetic Organic Chemicals (SOC). The City did complete the UCMR testing. This program also tests for some Synthetic Organic Chemicals. Results from this testing program are discussed below.

In 2006, the October sampling at Well Electric detected Di-Methyl Phthalate at 0.70 ppb (detection limit is 0.4 ppb). The compound is a common laboratory contaminant and is not regulated (i.e. there is no MCL). Because of the low concentration, and no detection on resampling in December, State Department of Health agreed that this did not characterize the source water quality.

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

The City started testing for SOCs in the wells in 1994, with additional tests in 1995, 1997, 1998, and 1999. This testing includes pesticides, herbicides, PCBs, and phthalates. In the first two quarters of 1994, Parkwater testing detected Di(2-ethylhexyl) Phthalate twice (0.3 & 0.2 ppb). Di(2-ethylhexyl) Adipate was detected once (2.1 ppb) at Parkwater and again in 1997 at Hoffman (0.7 ppb). The MCLs for these compounds are 6 ppb, and 400 ppb 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.

Other than the following exceptions the results have all been non-detect. The first exception has to do with those detections listed in the paragraph above. The second exception has to do with a detection of Di-n-Butylphthalate which showed up at low levels in all of the samples taken 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.

UNREGULATED CONTAMINANT MONITORING – Round 2

The Unregulated Contaminant Monitoring Rule 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. 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, is 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 the all wells for the 25 containments on List 1 and 2. **In January 2010 there 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 18 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 had previously sampled for four of the list 1 chemicals (see page 22). 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 27. 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

XENOBIOTICS – Emerging Contaminants

In recent years there has been growing concern throughout the nation about organic compounds that are present in our environment, but are not typically thought of as contaminants. The compounds may be present in surface waters, and less likely in groundwater. These compounds are typically not in concentrations that would be acutely toxic, but may have chronic impacts, particularly as interference to the human endocrine system. Chemicals of this kind have had significant impacts on aquatic species.

During 2008, the Water Department conducted investigative monitoring for a broad spectrum of these compounds that are pharmaceuticals and personal care products (PPCPs), and sterols and hormones. A complete list of the compounds is found in Appendix II (page 37). The samples from Grace and Parkwater wells were analyzed by EPA Methods 1694 (Pharmaceuticals and Personal Care Products by HPLC/MS/MS) and 1698 (Steroids and Hormones by HRGC/HRMS). **Of 103 compounds in the laboratory analysis, there were no detections.**

Further information about these emerging contaminants can be found at the EPA website: www.epa.gov/ppcp/ .

MICROBIOLOGICAL CONTAMINANTS

COLIFORM BACTERIA - SOURCE

The City of Spokane well station raw source water has been tested regularly for coliform bacteria. While historically there has been no requirement to test for coliform bacteria in source water, the City of Spokane 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 2010, out of 75 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 394 tests over the 5-year period from 2006 through 2010, 5 positive total coliform results were found. The greatest concentration detected was 39.7 colonies per 100 mL for total coliform bacteria (Grace, Jul-25-2006).

HETEROTROPHIC PLATE COUNT BACTERIA – SOURCE

In 2010, out of 76 Heterotrophic Plate Count (HPC) tests on source water, there were 14 positive results. The greatest concentration was 36 colonies per milliliter of sample. HPC tests were conducted 383 times over the 5-year period from 2006 through 2010 on raw source water. There have been 190 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"*[4]. The maximum detection during this five-year period was 347 colonies per milliliter at the Ray St. Well in April 2007. Without regard to source water HPC levels, City source water is treated with chlorine to safeguard drinking water quality. This is done primarily because of the size and age of the City's distribution system. Some water utilities in this area (drawing from the same aquifer) do not add any disinfectant.

COLIFORM BACTERIA - DISTRIBUTION SYSTEM

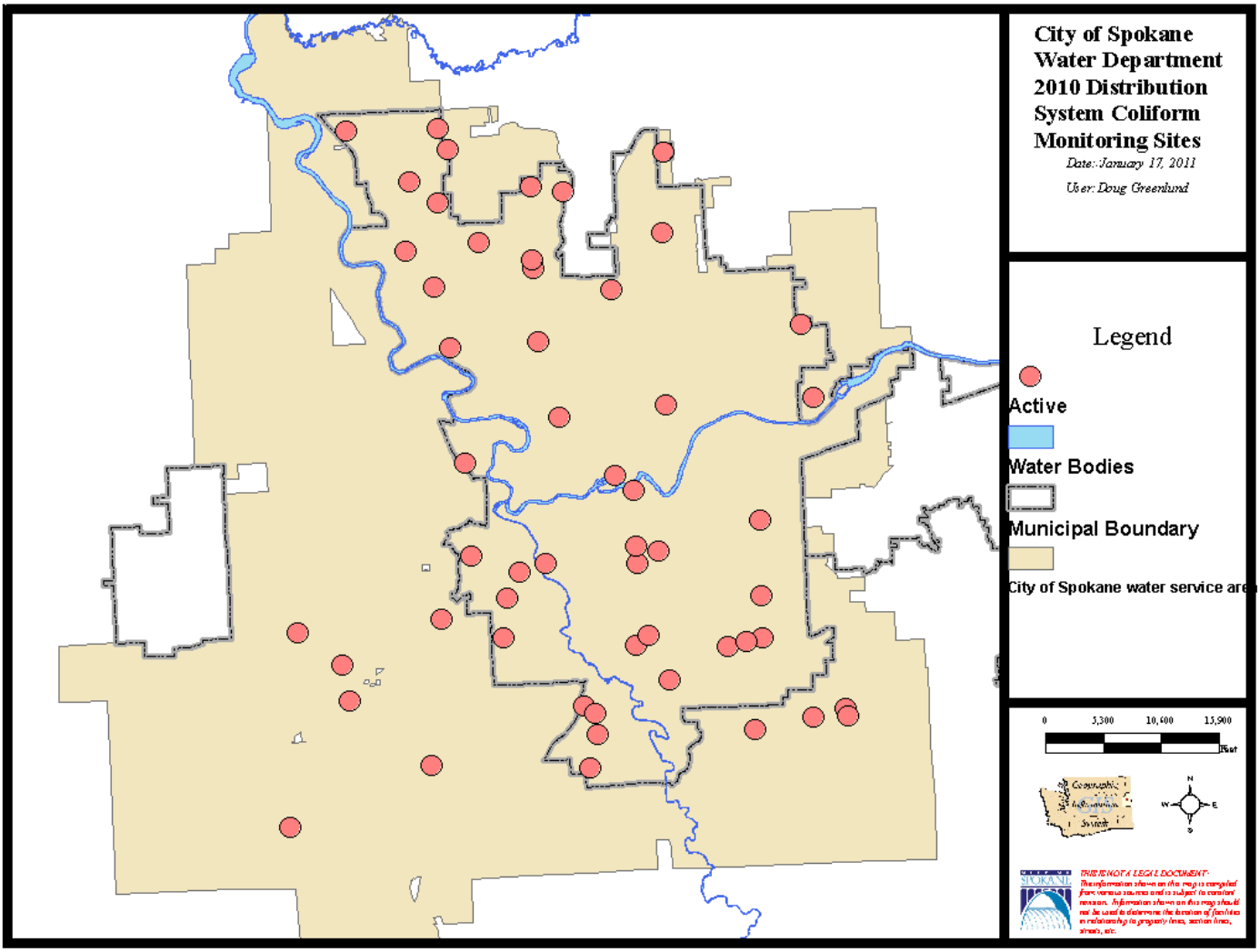
Coliform testing is typically being done four days a week from various points in the distribution system. Historically, the City Water System scheduled 122 samples per month. The Water Department anticipates having greater than 220,000 customers in the near future. This change of population tier[5] would require 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. **During 2010, the City Water Dept. had 2,010 coliform bacteria samples analyzed, an increase from 1,990 in 2009 and 1,960 in 2008. On July 20, 2010 there was one positive total coliform bacteria result in the distribution system.** Six additional samples (re-sampling of the site, plus one sample each immediately up and down "stream" from the site and 3 source samples) were collected to confirm or deny this result. **These samples were negative for total coliform and the initial result was not confirmed.** The Maximum Contaminant Level is that no more than 5% of the total coliform bacteria tests can be positive per month. In 2010, the greatest number of positive results was 1 in 155 samples. This is 0.65 % of the results, well below the MCL.

On October 17, 2005 there was one E. coli present result, but subsequent re-sampling (resampling of the site, plus one sample each immediately up and down "stream" from the site) was negative, so the result was not confirmed.

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 2010, overlaid on the water

[4] Ref. WAC 246-290-451 (3)(c)
[5] ref. WAC 246-290-300 (3)(e-Table 2)

service area. It is important to note that the sample sites are evenly sited based on the distribution system and population density, which may not currently reach all parts of the water service area:



Water Department staff state that coliform bacteria have not been confirmed in the distribution system for at least the last 30 years. Sample handling or collection errors are suspected causes of the original detections.

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://water.epa.gov/action/advisories/drinking/upload/2009_02_03_criteria_humanhealth_microbial_aeromonas-200603.pdf

PROTOZOA

A number of cities and towns throughout the country in recent years have experienced problems with Giardia and/or Cryptosporidium getting into the distribution systems. Most times, problems with these parasitic organisms 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**.

In December of 1994 and March of 1995, the City of Spokane tested for the presence of Giardia and Cryptosporidium at the Well Electric Station. Well Electric sits nearer the Spokane River than other sources. **These microorganisms were not detected**. Again in June and September of 1995, similar tests were run and Microscopic Particle Analysis was added. **This testing revealed none of the microorganisms of concern**, nor were other "surface water indicators" seen.

In 1997, the City was formally notified by the State that two City wells were built and located such that a potential to draw river contaminants into the wells might exist. As a result of further testing, a determination was made that Baxter (a former seasonal source, which no longer exists) was not considered to be under the influence of surface water. Well Electric (a permanent source) was determined to be hydraulically connected to the River and further monitoring was conducted through June of 2003 to determine if Well Electric was under the influence of the River. That is to say, to determine if contaminants would move from the river to the source well.

In a letter dated February 11, 2004, the Department of Health stated that Well Electric would be classified as groundwater for regulatory monitoring and compliance purposes, providing that the provisions in the City's operational plan are followed. The operational plan has two main components: first, a requirement to maintain an increased level of disinfection at Well Electric, and second, a plan to avoid using Well Electric when it has the potential

of being under the influence of the Spokane River, which can occur during river high flow events. The City, in consultation with the Washington Dept. of Health, will continue to evaluate the impact of this hydraulic connection.

During 2001, 2002, & 2003, the City Water Department conducted its investigation of this hydraulic connection. Monitoring was conducted at Nevada, Ray St., Parkwater and Well Electric well stations for Microscopic Particle Analysis (MPA). This testing procedure involves pumping large volumes of water through a filter media. This filter media is sent to a laboratory where the media is washed to remove the solid material filtered out of the water. This solid material is concentrated to a volume suitable for observation with a microscope. The observed solid material is counted and identified. A risk value is assigned to the particle information. The risk value corresponds to the probability that the source water is under the influence of surface water (Spokane River).

The following table summarizes the MPA results for this 3-year period:

Well Station	*Total # of tests*	*# of low risk (result less than 9)*	*# of moderate risk (result 10 to 19)*	*# of high risk (result 20 and greater)*
2001				
Nevada St. Well	7	7	0	0
Ray St. Well	6	6	0	0
Parkwater Well	14	11	3	0
Well Electric (#4 & #5)	30	29	1	0
2002				
Nevada St. Well	1	1	0	0
Parkwater Well	2	2	0	0
Well Electric (#4 & #5)	22	19	3	0
2003				
Well Electric (#4 & #5)	6	6	0	0

People who become ill as a result of consuming Giardia and/or Cryptospoidium typically recover after suffering severe bouts of diarrhea. However, people whose immune systems are compromised, or 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 Center for Disease Control and Prevention at http://www.cdc.gov/parasites/crypto/index.html (Cryptosporidium) and www.cdc.gov/ncidod/dpd/parasites/giardiasis/default.htm (Giardia) and the EPA website at http://www.epa.gov/safewater/consumer/pdf/crypto.pdf (Para ver información adicional, visite al; http://water.epa.gov/aboutow/ogwdw/agua/upload/crypto_spanish.pdf).

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.

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

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://water.epa.gov/drink/aqua/)

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, 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 protection 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 at (800) 426-4791, or you can access additional information at EPA websites: http://water.epa.gov/drink/index.cfm or http://water.epa.gov/drink/info/index.cfm

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 2008, the City conducted 14 tests from 7 source wells for Radon-222. The single highest result was 534 pCi/L, the lowest was 212 pCi/L, and the mean average was 444 pCi/L.

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 (800-SOS-RADON) or access the EPA website at http://www.epa.gov/radon/hotlines.html.

Arsenic: The arsenic readings in 2010 at the Central and Well Electric Wells were 3.24 ppb and 4.22 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 http://water.epa.gov/lawsregs/rulesregs/sdwa/arsenic/index.cfm.

Lead: During 2009, the City tested 56 at-risk residences for lead. The single highest result was 8.07 ppb. This result for lead is less than 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 also analyzed for lead concurrent with the in-home testing. The maximum concentration in 2009 source water testing for lead was 0.3 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 or at http://water.epa.gov/drink/info/lead/index.cfm

CITY OF SPOKANE'S SYSTEM

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 Aquifer (that portion of the larger 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 seeks 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
City Hall (808 W. Spokane Falls Blvd., Spokane, WA).

Appendix I - Water Use Efficiency compliance data

22-Feb-2011

Distribution System Leakage (DSL)

	2010	2009	2008	2007	2006	2005	2004	2003	2002
Service Meter Reading-Single Family, cu.ft.	1,112,029,865	1,290,030,800	1,152,981,200	1,202,265,680	1,203,061,552	1,086,928,400	1,193,035,800	1,237,952,600	1,190,542,300
Service Meter Reading-Multi Family, cu.ft.	288,245,615	315,618,069	409,792,300	472,555,248	461,200,784	421,588,600	412,155,800	419,161,800	391,183,100
Service Meter Reading-Commercial/Industrial, cu.ft.	520,982,640	563,865,863	744,076,700	831,283,552	836,985,600	797,205,000	892,540,700	777,286,200	746,383,800
Service Meter Reading-Government, cu.ft.	177,171,760	219,667,715	212,251,200	275,573,144	275,364,760	268,069,400	270,143,600	268,998,700	237,110,500
Emergency Interties, cu.ft.	* *	* *	* *	* *	* *	29,600	23,490,900	17,600	95,300
Wholesale Amount Sold, cu.ft.	14,551,700	12,833,300	10,046,300	29,756,900	21,344,300	13,107,300	9,443,600	9,983,100	11,400,200
Non-Revenue Accounted for Water, cu.ft. (estimate) *	142,296,791	142,296,791	28,000,000	28,000,000	28,000,000	28,000,000	28,000,000	28,000,000	28,000,000
Total Authorized Consumption, cu.ft. *	2,255,278,371	2,544,312,538	2,557,147,700	2,839,434,524	2,825,956,996	2,614,928,300	2,828,810,400	2,741,400,000	2,604,715,200
Total Authorized Consumption (gal. X1000) (AC) *	16,869,482	19,031,458	19,127,465	21,238,970	21,138,158	19,559,664	21,159,502	20,505,672	19,483,270
Total Production (gal. X1000) (TP)	20,608,800	22,402,716	21,222,058	22,947,090	23,735,049	21,278,719	21,615,890	21,896,539	21,611,161
Distribution System Leakage (DSL), volume (gal. X1000)	3,739,318	3,371,258	2,094,593	1,708,120	2,596,891	1,719,055	456,388	1,390,867	2,127,891
Distribution System Leakage (DSL), percent	18.1%	15.0%	9.9%	7.4%	10.9%	8.1%	2.1%	6.4%	9.8%

* 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.

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

Method for calculating the Distribution System Leakage (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 leakage

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

Total System Pumpage vs. Water Stewardship Strategic Plan Goals (source - City of Spokane Water Department)

WATER YEAR (Oct. through Sept.)	2010	2009	2008	2007	2006	2005	2004	2003	2002
					pumpage (1,000 gallons)				
Total - Oct. (prev. yr.)through Mar.	6,778,277	6,618,666	6,551,023	7,161,742	6,884,687	6,305,328	6,743,044	6,095,091	6,703,595
Total - Apr. through Jun.	5,241,226	6,439,647	5,340,540	6,463,462	5,991,545	5,105,476	6,347,928	5,869,848	6,170,680
Total - Jul. through Sept.	8,938,048	9,202,243	9,277,452	9,936,735	10,451,223	9,695,077	8,737,566	9,596,914	9,125,815
Total - sum of seasonal totals	20,957,551	22,170,556	21,168,810	23,561,939	23,327,455	21,105,881	21,828,538	21,561,853	22,000,090
Goal - Oct. (prev. yr.) through Mar.	6,870,000	6,810,000	6,760,000	6,710,000	6,660,000				
Goal - Apr. through Jun.	6,900,000	6,890,000	6,870,000	6,850,000	6,830,000				
Goal - Jul. through Sept.	8,830,000	8,910,000	8,990,000	9,060,000	9,130,000				
Difference between Goal & Use as a percentage (positive value equal exceedance of goal)									
Result - Oct. (prev. yr.) through Mar.	-1.3%	-2.8%	-3.1%	6.7%	3.4%				
Result - Apr. through Jun.	-24.0%	-7.8%	-22.3%	-5.6%	-12.3%				
Result - Jul. through Sept.	1.2%	3.3%	3.2%	9.7%	14.5%				

Single Family Residences, total volume billed (entire service area) (Source - Utility Billing)

year	begin date	gallons (total)	no. of service locations	gal per service location	% change of service locations (Aug. & Sept.)
2002	Jan. & Feb.	661,658,308	57,239	199	
2002	Aug. & Sept.	3,349,808,500	58,418	956	
2003	Jan. & Feb.	621,954,490	57,238	187	
2003	Aug. & Sept.	3,739,564,671	58,747	1061	0.56%
2004	Jan. & Feb.	718,183,965	57,978	214	
2004	Aug. & Sept.	3,297,148,096	59,259	927	0.87%
2005	Jan. & Feb.	604,612,888	58,403	178	
2005	Aug. & Sept.	2,940,177,049	59,914	818	1.11%
2006	Jan. & Feb.	709,090,289	59,231	206	
2006	Aug. & Sept.	3,392,957,337	60,883	929	1.62%
2007	Jan. & Feb.	610,421,856	59,881	176	
2007	Aug. & Sept.	3,610,435,980	61,459	979	0.95%
2008 *	Jan. & Feb.	605,478,234	60,435	170	
2008	Aug. & Sept.	3,158,038,235	61,581	855	0.20%
2009	Jan. & Feb.	655,566,618	60,683	186	
2009	Aug. & Sept.	3,183,286,496	61,585	861	0.01%
2010	Jan. & Feb.	597,449,771	60,608	170	
2010	Aug. & Sept.	2,809,319,289	61,810	758	0.37%
			Avg. percent change of service locations (Aug. & Sept.) 2002-2010		0.71%

* Heavy winter weather during Feb. 2008 resulted in estimating north side accounts at 12 units. Assessing the remaining meters for this period and relating to the next round of meter reading, this appears to be accurate.

Appendix II - Tests Run on City of Spokane Water

10-Jan-2011

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
1 Hardness, Calcium
1 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
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 s were not run in 2010 but have been run in prvious 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

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* Test s were not run in 2010 but have been run in prvious 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

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* Test s were not run in 2010 but have been run in prvious years

Appendix II (continued)

Unregulated Contaminant Monitoring Rule - Round 2 (UCMR 2)

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)

1 - Typically run by the City's Wastewater Laboratory only
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Appendix III - Annual Testing Summary - Tests Run on City of Spokane Water 3-Feb-2011

2010 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	6 / <1	4 / <1	10 / <1	12 / <1	9 / <1	24 / <1
Fecal Coliform - number of samples per year / greatest result		10 / <1	6 / <1	4 / <1	10 / <1	12 / <1	9 / <1	24 / <1
HETEROTROPHIC PLATE COUNT - RAW SOURCE *		10 / 1	6 / 1	4 / 36.5	10 / <1	12 / 1	9 / 1	24 / 1
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
NITRATE	1st Qtr - Jan						3.40	
	2nd Qtr - April						3.53	
	3rd Qtr - Jul	0.95	0.80	1.33	0.90	1.36	2.22	1.41
	4th Qtr - Oct						3.07	
NITRATE + NITRITE - RPWRF LAB	1st Qtr - Jan						3.80	
	2nd Qtr - April	1.11	1.02	1.65	1.07	1.23	3.86	1.58
	3rd Qtr - Jul						2.13	
	4th Qtr - Oct						3.15	
ORGANIC								
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL	3rd Qtr - July	< 0.5, 5.45, 0.66, 1.78	<0.5, 8.95, 1.34, 3.29	< 0.5, 7.47, 1.55, 3.62	< 0.5, 7.87, 1.36, 3.4	< 0.5, 7.62, 1.2, 2.54	0.6, 9.16, 2.99, 6.41	< 0.5, 8.81, 1.12, 2.9
(Br,Cl,DiBr,DiCl)								
VOLATILES	1st Qtr - Jan							no detections
(including TRIHALOMETHANES)	2nd Qtr - April							
	3rd Qtr - Jul							
	4th Qtr - Oct							
UCMR Stage 2 List 1 and 2	1st Qtr - Jan	no detections			no detections	NDMC 0.00216	no detections	no detections
	2nd Qtr - April		no detections	no detections				
RADIOACTIVE CONTAMINANTS								
Radium 228 - pCi/L, Gross Alpha - pCi/L	2nd Qtr - April	< 0.5, 3.83		0.11, 3.46				0.68, 4.71
Radium 228 - pCi/L, Gross Alpha - pCi/L	3rd Qrt - July		< 0.5, 2.06		0.54. 3.59	< 0.5, 6.13	< 0.5, 2.14	

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

Appendix III - Annual Testing Summary - Tests Run on City of Spokane Water						3-Feb-2011		
2009 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		9/ <1	7 / <1	3 / <1	11 / <1	12 / <1	7 / <1	23 / <1
Fecal Coliform - number of samples per year / greatest result		9 / <1	7 / <1	3/ <1	11 / <1	12 / <1	7 / <1	23 / <1
HETEROTROPHIC PLATE COUNT - RAW SOURCE *								
number of samples per year / greatest result value		7 / 27	7 / 12	3 / 76	11 / 1	12 / 1	7 / 81	23 / 2
* 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						3.58	
	2nd Qtr - May						3.37	
	3rd Qtr - Jul	1.02	0.86	1.44	0.96	1.47	2.11	1.51
	4th Qtr - Oct						3.60	
NITRATE + NITRITE - RPWRF LAB	1st Qtr - Jan						3.87	
	2nd Qtr - May						3.65	
	3rd Qtr - Jul	1.11	0.94	1.46	1.24	1.60	2.39	1.66
	4th Qtr - Oct						3.89	
ORGANIC								
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL	3rd Qtr - Jul	< 0.5,4.71,1.03,1.82	< 0.5,9.08,1.91,3.83	< 0.5,7.04,1.51,3.31	< 0.5,4.20,1.39,2.53	< 0.5,4.83,1.77,2.63	< 0.5,5.03,2.13,3.23	< 0.5,3.58,0.98,1.90
(Br,Cl,DiBr,DiCl)								
VOLATILES	1st Qtr - Jan						no detections	
(including TRIHALOMETHANES)	2nd Qtr - May					no detections		
	3rd Qtr - Jul							
	4th Qtr - Oct							
SYNTHETIC ORGANICS (515.1, 525.2, 531.1)	2nd Qtr - May				no detections			
	3rd Qtr - Jul				no detections	no detections	no detections	no detections
	4th Qtr - Oct					no detections	no detections	no detections
UCMR Stage 2 List 1 and 2	3rd Qtr - Jul	no detections	no detections	no detections	no detections	no detections	no detections	no detections
RADIOACTIVE CONTAMINANTS								
Radium 228 pCi/L	2nd Qtr - Apr		1.9			1.1	1.3	
UNITS ARE AS REPORTED, ppb FOR ORGANICS, ppm FOR INORGANICS, except where noted.								

Appendix III - Annual Testing Summary - Tests Run on City of Spokane Water 3-Feb-2011

2008 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		7 / <1	7 / <1	4 / <1	7 / <1	12 / <1	9 / <1	36 / <1
Fecal Coliform - number of samples per year / greatest result		7 / <1	7 / <1	4 / <1	7 / <1	12 / <1	9 / <1	36 / <1
HETEROTROPHIC PLATE COUNT - RAW SOURCE *								
number of samples per year / greatest result value		7 / 8	7 / 2	3 / 42.5	7 / 1	12 / 1	9 / 101	32 / 2
* 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				
NITRATE	1st Qtr - Jan						3.83	
	2nd Qtr - May						3.78	
	3rd Qtr - Jul	1.06	0.818	1.70	1.05	2.03	2.98	1.86
	4th Qtr - Oct						3.07	
NITRATE + NITRITE - RPWRF LAB	1st Qtr - Jan						3.72	
	2nd Qtr - May						3.70	
	3rd Qtr - Jul	0.892	0.676	1.80	0.902	1.76	2.46	1.61
	4th Qtr - Oct						3.00	
ORGANIC								
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL (Br,Cl,DiBr,DiCl)	3rd Qtr - Aug	< 0.5,3.22,< 0.5,0.83	< 0.5,7.82,1.75,2.98	< 0.5,4.01,1.06,1.68	< 0.5,5.19,1.48,2.54	< 0.5,4.13,1.06,1.62	0.59,5.29,2.37,2.93	< 0.5,4.35,0.96,1.51
VOLATILES	1st Qtr - Jan	no detections	no detections *		no detections			
(including TRIHALOMETHANES)	2nd Qtr - May		no detections *					
	3rd Qtr - Jul		no detections *	no detections				
	4th Qtr - Oct							
SYNTHETIC ORGANICS (515.1, 525.2, 531.1)	3rd Qtr - Jul	no detections	no detections	no detections				
	4th Qtr - Oct	no detections	no detections	no detections				
RADIOACTIVE CONTAMINANTS								
Radon	2nd Qtr - Apr	534	winterized	winterized	426	534	503	402
	3rd Qtr - Jul	468	284	488	473	534	452	212
	4th Qtr - Oct		440	467				

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

* Grace was sampled each month, Jan. - Aug, and analyzed for VOC and NW TPH-Dx, re: Whitley Fire

Appendix IV - Drinking Water Inorganics Summary

CITY OF SPOKANE

reported 3-Nov-2010

DRINKING WATER INORGANICS SUMMARY

MOST RECENT WELL STATION MONITORING ANALYTICAL RESULTS

CERTIFIED 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	27-Jul-2010	27-Jul-2010	29-Jul-2008	29-Jul-2008	28-Jul-2009	28-Jul-2009	28-Jul-2009						
LABORATORY	County (SVL)	County (SVL)	County (SVL)	County (SVL)	County (SVL)	County (SVL)	County (SVL)						
ALKALINITY	114	122	87.5	139	103	150	148	unregulated		123	150	87.5	7
HARDNESS (as CaCO3)	124	131	91.4	154	99.3	155	150	unregulated		129	155	91.4	7
CONDUCTIVITY (µmos/cm)	257	278	100	160	219	329	339	700 t		240	339	100	7
TURBIDITY (NTU)	< 0.100	< 0.100	< 1.0	< 1.0	< 0.100	0.125	0.100	1 t		0.03	0.125	0.1	7
COLOR (color units)	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	15 s		0.000	0.000	< 5.00	7
CHLORIDE	3.19	3.8	3.81	5.77	4.11	5.92	10.1	250 s		5.24	10.1	3.19	7
TOT. DISSOLVED SOLIDS	143	155	100	160	121	191	191	500 t		152	191	100	7
MAGNESIUM	14	13.6	8.01	16.9	8.98	16.8	12.9	unregulated		13.0	16.9	8.01	7
CALCIUM	26.7	30.2	23.4	33.9	25	34.2	38.6	unregulated		30.3	38.6	23.4	7
ORTHO-PHOSPHATE	0.02	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010	0.02	unregulated		0.006	0.02	< 0.010	7
AMMONIA	< 0.030	< 0.030	0.036	< 0.030	< 0.030	< 0.030	< 0.030	unregulated		0.005	0.036	0.036	7
CYANIDE	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	0.0106	0.2	0.2		0.011	< 0.0100	7
FLUORIDE	< 0.100	< 0.100	0.151	< 0.100	< 0.100	< 0.100	< 0.100	2 s	4		0.151	< 0.100	7
NITRATE (NO3-N)	0.95	1.41	0.83	1.70	0.96	1.47	2.11	10	10	1	2.11	0.83	7
NITRITE (NO2-N)	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	1	1		< 0.050	< 0.050	7
SULPHATE	12	10.8	7.83	14.8	9.1	16.6	12.7	250 s	400	12.0	16.6	7.8	7
ALUMINUM	< 0.080	< 0.080	< 0.080	< 0.080	< 0.080	< 0.080	< 0.080	0.05 - 0.2 mg/L * *			< 0.080	< 0.020	7
ANTIMONY	< 0.00300	< 0.00300	< 0.00300	< 0.00300	< 0.00300	< 0.00300	< 0.00300	0.006	0.006		< 0.00300	< 0.001	7
ARSENIC	0.00324	0.00422	0.00310	0.00299	0.00277	0.00324	0.00513	0.010	0	0.0035	0.00513	0.00277	7
BARIUM	0.0249	0.0216	0.0167	0.0306	0.0189	0.0273	0.0418	2	2	0.0260	0.0418	0.0167	7
BERYLLIUM	< 0.000800	< 0.000800	< 0.00200	< 0.00200	< 0.0008	< 0.0008	< 0.0008	0.004	0.004		< 0.00200	< 0.0008	7
CADMIUM	< 0.00200	< 0.00200	< 0.000200	< 0.000200	< 0.0002	< 0.0002	< 0.0002	0.005	0.005		< 0.002	< 0.000200	7
CHROMIUM	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060	0.1	0.1		< 0.0060	< 0.0060	7
COPPER	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	TT	1.3		< 0.010	< 0.010	7
IRON	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	0.3 s			< 0.060	< 0.060	7
LEAD	< 0.00100	< 0.00100	< 0.00100	< 0.00100	< 0.00100	< 0.00100	< 0.00100	TT	0		< 0.001	< 0.001	7
MANGANESE	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	0.05 s			< 0.0040	< 0.0040	7
MERCURY	< 0.000200	< 0.000200	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	0.002	0.002		< 0.00020	< 0.00020	7
NICKEL	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.1 * * *	0.1 * * *		< 0.010	< 0.010	7
SELENIUM	< 0.00300	< 0.00300	< 0.00300	< 0.00300	< 0.00300	< 0.00300	< 0.00300	0.05	0.05		< 0.00300	< 0.00300	7
SILVER	< 0.0050	< 0.0100	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.1 s			< 0.0050	< 0.0050	7
SODIUM	3.05	3.95	2.67	4.40	2.58	3.81	6.19	unregulated		3.8	6.19	2.58	7
THALLIUM	< 0.00100	< 0.00100	< 0.00100	< 0.00100	< 0.00100	< 0.00100	< 0.00100	0.002	0.0005		< 0.00100	< 0.000400	7
ZINC	0.0151	< 0.0100	< 0.0100	< 0.0100	< 0.010	< 0.010	< 0.010	5 s			0.0159	< 0.010	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, but is also on the Drinking Water Contaminant Candidate List

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

Appendix V - Disinfection Byproducts - Distribution System

Distribution System Sampling for Disinfection Byproducts

Reported 3-Feb-2011

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	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	
Organics Lab	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		
TRIHALOMETHANES, results micrograms/L									
Chloroform	< 0.5	< 0.5	< 0.5	**0.9**	< 0.5	< 0.5	< 0.5	< 0.5	
Bromodichloromethane	< 0.5	**0.52**	< 0.5	**1.3**	**0.67**	< 0.5	< 0.5	**0.68**	
Dibromochloromethane	< 0.5	**0.74**	< 0.5	**1.49**	**0.78**	**0.71**	< 0.5	**0.89**	
Bromoform	< 0.5	< 0.5	< 0.5	**0.6**	< 0.5	< 0.5	< 0.5	< 0.5	
TOTAL TRIHALOMETHANES	< 2.0	**1.26**	< 0.5	**4.29**	**1.45**	**0.71**	< 0.5	**1.57**	80
HALOACETIC ACIDS (HAA5), results micrograms/L									
Chloroacetic acid	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	
Bromoacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Di-Chloroacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Tri-Chloroacetic acid\	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Di-Bromoacetic acid	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
TOTAL HAA (5)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	60
Chloro,bromoacetic acid *	< 1	< 1	< 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 1-Feb-11

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.

WELL STATION	CENTRAL							Reported	1-Feb-11	MAXIMUM CONTAMINANT LEVELS
DATE	13-Aug-02	29-Jul-03	27-Jul-04	2005	2006	31-Jul-07	29-Jul-08	2009	2010	
Organics Lab	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	
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			
Bromoform	< 0.5			< 0.5			< 0.5			
Chloroform	< 0.5			< 0.5			< 0.5			
Dibromochloromethane	< 0.5			< 0.5			< 0.5			
Bromodichloromethane	< 0.5			< 0.5			< 0.5			
TOTAL TRIHALOMETHANES	< 2.0			< 2.0			< 2.0			80
VOLATILE ORGANICS				01-Feb-05			29-Jan-08			
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	Aug.&Nov.			7/26 + 10/25			7/29 & 10/21			
Di (2-ethylhexyl) Adipate	< 1.3			< 1.3			< 1.3			400
Di (2-ethylhexyl) Phthalate	< 1.3			< 1.3			< 1.3			6
Di-n-Butylphthalate	< 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.

WELL STATION GRACE Reported 1-Feb-11

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 Resample	
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. 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)

WELL STATION	GRACE						Reported	1-Feb-11	MAXIMUM CONTAMINANT LEVELS
DATE	29-Jul-03	27-Jul-04	2005	2006	2007 *	2008 *	2009	2010	
Organics Lab	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Organics Note:									
Sampled by:	Wisely	Cribbins	Woodfill	Casci	Graf/Rickard	Graf/Rickard	Rickard	Graf/Greenlund	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL				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	
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					*	*			
Bromoform		< 0.5			< 0.5	< 0.5			
Chloroform		< 0.5			< 0.5	< 0.5			
Dibromochloromethane		< 0.5			< 0.5	< 0.5			
Bromodichloromethane		< 0.5			< 0.5	< 0.5			
TOTAL TRIHALOMETHANES		< 2			< 2	< 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
Trichlorofluoromethane (Freon 11)		< 0.5			< 0.5	< 0.5			
SYNTHETIC ORGANICS	Jul-03		7/26 + 10/25			7/29 & 10/21			
Di (2-ethylhexyl) Adipate	< 1.3		< 1.3			< 1.3			400
Di (2-ethylhexyl) Phthalate	< 1.3		< 1.3			< 1.3			6
Di-n-Butylphthalate	< 0.4		< 0.4			< 0.4			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 station until Aug. 2008. There were no detections.

WELL STATION **HOFFMAN** Reported 1-Feb-11 MAXIMUM CONTAMINANT LEVELS

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	
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 LEVELS

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	
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	
Organics Lab	Anatek	Anatek	
Organics Note:			
Sampled by:	Rickard	Graf/Greenlund	
MAXIMUM TOTAL TRIHALOMETHANE POTENTIAL	28-Jul-09	27-Jul-10	
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			
Bromoform			
Chloroform			
Dibromochloromethane			
Bromodichloromethane			
TOTAL TRIHALOMETHANES			80
VOLATILE ORGANICS			
1,1,1-Trichloroethane			200
Tetrachloroethene			5
1,3-Dichloropropane			none
Trichlorofluoromethane (Freon 11)			
Dichloromethane (Methylene Chloride, Freon 30)			
SYNTHETIC ORGANICS			
Di (2-ethylhexyl) Adipate			400
Di (2-ethylhexyl) Phthalate			6
Di-n-Butylphthalate			none

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

NEVADA

WELL STATION										Reported	1-Feb-11					MAXIMUM CONTAMINANT LEVELS
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	
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

NEVADA (CONTINUED)

WELL STATION																MAXIMUM CONTAMINANT LEVELS
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	
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										Reported	1-Feb-11	MAXIMUM CONTAMINANT LEVELS
DATE	2000	2001	2002	2003	2004	2005	2006	2007 *	2008 *	2009	2010	
Organics Lab	County (NCA)	County (NCA)	County (NCA)	Anatek	03-Jan-00	Anatek	Anatek	Anatek	Anatek	Anatek	Anatek	
Organics Note:												
Sampled by:				Cribbins	Woodfill	Woodfill	Casci	Graf/Rickard	Graf/Rickard	Rickard	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	
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	*	*			
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-00			06-May-03			25-Apr-06	*	*			
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				4/29 & 7/29			4/25 + 7/25			4/21 & 7/28		
Di (2-ethylhexyl) Adipate				< 1.3			< 1.3			< 1.3		400.0
Di (2-ethylhexyl) Phthalate				< 1.3			< 1.3			< 1.3		6.0
Di-n-Butylphthalate				< 0.4			< 0.4			< 0.4		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 station until Aug. 2008. There were no detections.

PARKWATER

WELL STATION									Reported	1-Feb-11					MAXIMUM CONTAMINANT LEVELS
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	
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

PARKWATER (CONTINUED)

WELL STATION																MAXIMUM CONTAMINANT LEVELS
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	
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 1-Feb-11

WELL STATION				MAXIMUM CONTAMINANT LEVELS
DATE	2008	28-Jul-09	27-Jul-10	
Organics Lab	Anatek	Anatek	Anatek	
Organics Note:				
Sampled by:	Graf/Rickard	Rickard	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		
Bromoform		< 0.5		
Chloroform		< 0.5		
Dibromochloromethane		< 0.5		
Bromodichloromethane		< 0.5		
TOTAL TRIHALOMETHANES		< 2.0		80
VOLATILE ORGANICS				
1,1,1-Trichloroethane		< 0.5		200
Tetrachloroethene		< 0.5		5
1,3-Dichloropropane		< 0.5		none
SYNTHETIC ORGANICS		7/28 + 10/27		
Di (2-ethylhexyl) Adipate		< 1.3		400
Di (2-ethylhexyl) Phthalate		< 1.3		6
Di-n-Butylphthalate		< 0.4		none

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

WELL STATION	RAY								Reported	1-Feb-11					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

WELL STATION	RAY (CONTINUED)														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 1-Feb-11

DATE	31-Jul-2001	13-Aug-02	29-Jul-2003	2004	2005	2006	2007	2008	2009	2010	MAXIMUM CONTAMINANT LEVELS
Organics Lab	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	
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-2003			31-Jan-06			27-Jan-09		
Bromoform	< 0.5		< 0.5			< 0.5			< 0.5		
Chloroform	< 0.5		< 0.5			< 0.5			< 0.5		
Dibromochloromethane	< 0.5		< 0.5			< 0.5			< 0.5		
Bromodichloromethane	< 0.5		< 0.5			< 0.5			< 0.5		
TOTAL TRIHALOMETHANES	< 2.0		< 2.0			< 2.0			< 2.0		80
VOLATILE ORGANICS											
1,1,1-Trichloroethane	< 0.5		< 0.5			< 0.5			< 0.5		200
Tetrachloroethene	< 0.5		< 0.5			< 0.5			< 0.5		5
1,3-Dichloropropane	< 0.5		< 0.5			< 0.5			< 0.5		none
SYNTHETIC ORGANICS			Jul & Oct 2003			7/25 + 10/31			7/28 + 10/27		
Di (2-ethylhexyl) Adipate			< 1.3			< 1.3			< 1.3		400
Di (2-ethylhexyl) Phthalate			< 1.3			< 1.3			< 1.3		6
Di-n-Butylphthalate			< 0.4			< 0.4			< 0.4		none

	MAXIMUM CONTAMINANT LEVELS
	none
	80
	200
	5
	none
	400
	6
	none

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

WELL ELECTRIC

WELL STATION									Reported	1-Feb-11						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	MWL	Laucks	MWL	Anatek	
Organics Note:											Resample					
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	
Organics Lab	County (NCA)	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	
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	
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		
Di (2-ethylhexyl) Adipate	< 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		6
Di-n-Butylphthalate	< 0.4	< 0.4					< 0.4			< 0.4			< 0.4		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.

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 distal 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	
	AUG	NOV	JAN	FEB	APR	5/1 TO 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)

CONTAMINANTS FOUND IN DRINKING WATER TESTING IN 2010

CITY OF SPOKANE, WATER & HYDROELECTRIC SERVICES

Data presented, if not from 2010, 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)**	**5.1**	**2.2**	**12**	**12**	**10**	**0**	**Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes**
Nitrate	mg/L	**(a)**	**3.53**	**0.80**	**10**	**10**	**10**	**10**	**Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits**
Gross Alpha	pCi/L	**(a)**	**6.1**	**2.1**	**7**	**7**	**15**	**0**	**Erosion of natural deposits**
Combined Radium 226 and 228 (b)	pCi/L	**(a)**	**4.7**	**ND**	**6**	**7**	**5**	**0**	**Erosion of natural deposits**
Unregulated Contaminant Monitoring									
N-nitroso-dimethylamine (NDMA)	µg/L		**0.00216**	**ND**	**1**	**14**	**N/A**	**N/A**	**By-products in chemical synthesis and manufacture of rubber, leather and plastics; can form by reaction of precursor amines with nitrosing agents, or by action of nitrate-reducing bacteria. Foods such as bacon and malt beverages can contain them. May form in the upper GI tract.**

DISTRIBUTION SYSTEM TESTING CONTAMINANT	Units	Highest Average	Detected Maximum	Detected min.	Number Positive Samples	Number of Samples	MCL	MCLG	MAJOR SOURCES
Disinfection Byproducts - TTHMs [Total Trihalomethanes] (c)	µg/L	**1.24**	**1.85**	**0.51**	**7**	**14**	**80**	**0**	**By-product of drinking water chlorination**

CONTAMINANT	MCL	MCLG	Highest Percent Detected	Sample Date	Violation	
Fecal Coliform	5% of monthly samples positive	0	0.60%	one detection on July 20, 2010	No	**Naturally present in the environment**

		date sampled	90th Percentile (e)	Number of Sites exceeding AL	Number Positive Samples	Number of Samples	MCL	MCLG	
Copper (d)	mg/L	**Jul-09**	**0.10**	**0**	**56**	**56**	**TT, AL= 1.3**	**1.3**	**Corrosion of household plumbing systems; Erosion of natural deposits: Leaching from wood preservatives**
Lead (d)	µg/L	**Jul-09**	**5.70**	**0**	**56**	**56**	**TT, AL= 15**	**0**	**Corrosion of household plumbing systems; Erosion of natural deposits**

Notes

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

(b) Radium 228 was below the Federal detection limit of 1 pCi/L and Gross Alpha results were used in lieu of Radium 226 except for Parkwater which had non detect for radium 226

(c) Detected maximum and min. include results from Stage 2 DBP Rule testing

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

(e) 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.
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
<= - less than or equal to