

# Black Hawk Water User District Drinking Water Information

## (System Information, Sampling Requirements, and Compliance Report)

**This system is not a candidate for an award:**

Violation

<b>Population Served:</b>	5,670	<b>System Population:</b>	3,750
<b>Certified Operator:</b>	Ms Cindy Swanson PO Box 476 Black Hawk, SD 57718-0476	<b>Work Phone:</b>	(605)787-5777
		<b>Home Phone:</b>	(605)348-7612
		<b>Cell Phone:</b>	
		<b>Fax:</b>	(605)718-7594
		<b>Email:</b>	bhwud@rushmore.com
<b>Financial Contact:</b>	Ms Cindy Swanson PO Box 476 Black Hawk, SD 57718-0476	<b>Work Phone:</b>	(605)787-5777
		<b>Home Phone:</b>	
		<b>Cell Phone:</b>	
		<b>Fax:</b>	
		<b>Email:</b>	bhwud@rushmore.com
<b>Other Contacts:</b>	Mr Edmund Striebel PO Box 476 Black Hawk, SD 57718-0476	<b>Work Phone:</b>	
		<b>Home Phone:</b>	
		<b>Cell Phone:</b>	
		<b>Fax:</b>	
		<b>Email:</b>	
<b>Last Inspection:</b>	February 4, 2015		
<b>Type of System:</b>	Community	<b>Area Served:</b>	Meade County
<b>Number of Service Connections:</b>	1,500	<b>Contamination Risk:</b>	moderate
<b>Water Sold To:</b>			Pine Hills Park, Stagebarn Sanitary District, Piedmont
<b>PWS Owner Type:</b>	Private Ownership	<b>Service Area:</b>	Rural Water System/Colonies
<b>Contract Laboratory:</b>			Midcontinent Laboratory

# Monitoring/Reporting - Entry Point

Black Hawk Water User District

EPA ID: 0043

## SAMPLING

Entry point: Treat Site - Well #5

	Chemical	Sampling Frequency	Waivers	Taken Last	Due Next	Notes
1	Inorganic Chemicals					
	A. Antimony	Every nine years	Yes	Nov-11		
	B. Arsenic	Every nine years	Yes	Nov-11		
	C. Barium	Every nine years	Yes	Nov-11		
	D. Beryllium	Every nine years	Yes	Nov-11		
	E. Cadmium	Every nine years	Yes	Nov-11		
	F. Chromium	Every nine years	Yes	Nov-11		
	G. Cyanide		Yes			State-wide waiver
	H. Fluoride		No			This system fluoridates
	I. Mercury	Every nine years	Yes	Nov-11		
	J. Nickel	Every nine years	Yes	Nov-11		
	K. Selenium	Every nine years	Yes	Nov-11		
	L. Thallium	Every nine years	Yes	Nov-11		
2	Radiological Chemicals	Every six years	N/A			
3	VOC Chemicals	Quarterly	No	Feb-17	2017	
4	SOC Chemicals					
	A. Method 515.1	Triennially	No	Apr-17		
	B. Method 524	Triennially	No	Apr-17		
	C. Method 525	Triennially	No	Apr-17		
	D. Method 531.1	Triennially	No	Apr-17		
	E. Method 547	Triennially	No	Apr-17		
	F. Method 548	Triennially	No	Apr-17		
	G. Method 549	Triennially	No	Apr-17		
5	Nitrate	Annually	N/A	Feb-17		
6	Nitrite	Triennially	N/A	Sep-15		

(These values are calculated from available data. Check correspondence for verification.)

# Monitoring/Reporting - Entry Point

Black Hawk Water User District

EPA ID: 0043

## SAMPLING

Entry point: Treat Site - Well #4

	Chemical	Sampling Frequency	Waivers	Taken Last	Due Next	Notes
1	Inorganic Chemicals					
	A. Antimony	Every nine years	Yes	Nov-11		
	B. Arsenic	Every nine years	Yes	Nov-11		
	C. Barium	Every nine years	Yes	Nov-11		
	D. Beryllium	Every nine years	Yes	Nov-11		
	E. Cadmium	Every nine years	Yes	Nov-11		
	F. Chromium	Every nine years	Yes	Nov-11		
	G. Cyanide		Yes			State-wide waiver
	H. Fluoride		No			This system fluoridates
	I. Mercury	Every nine years	Yes	Nov-11		
	J. Nickel	Every nine years	Yes	Nov-11		
	K. Selenium	Every nine years	Yes	Nov-11		
	L. Thallium	Every nine years	Yes	Nov-11		
2	Radiological Chemicals	Every six years	N/A			
3	VOC Chemicals	Quarterly	No	Feb-17	2017	
4	SOC Chemicals					
	A. Method 515.1	Triennially	No	Apr-17		
	B. Method 524	Triennially	No	Apr-17		
	C. Method 525	Triennially	No	Apr-17		
	D. Method 531.1	Triennially	No	Apr-17		
	E. Method 547	Triennially	No	Apr-17		
	F. Method 548	Triennially	No	Apr-17		
	G. Method 549	Triennially	No	Apr-17		
5	Nitrate	Annually	N/A	Feb-17		
6	Nitrite	Triennially	N/A	Sep-15		

(These values are calculated from available data. Check correspondence for verification.)

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### Bacteriological Monitoring

Bacteriological sampling and analysis: January 1, 2017 to January 1, 2018

A	Samples submitted:	<u>48</u>
B	Samples required:	<u>Four Samples Each Month.</u>
C	Survey samples:	<u>0</u>
D	Safe samples:	<u>48</u>
E	Unsafe samples:	<u>0</u>
F	Repeat samples:	<u>0</u>
H	Groundwater Samples:	

### Lead and Copper Monitoring

(These values are calculated from available data. Check correspondence for verification.)

A	Date Last Tested:	<u>September 26, 2017</u>
B	Samples required:	<u>20</u>
C	Sampling Frequency	<u>Triennially</u>
D	Date Due Next	<u>2017</u>
E	Lead - 90% Level	<u>3.7</u> Action Level - 15 ug/l
F	Copper 90% Level	<u>0.31</u> Action Level - 1.3 mg/l

### Disinfectant Residual Monitoring

Residual sampling and analysis: January 1, 2017 to January 1, 2018

A	Samples submitted:	<u>48</u>
B	Samples required:	<u>Four Samples Each Month.</u>
C	Last Qtr Cl Residual:	<u>0.31</u> mg/l
D	Running Annual Average:	<u>0.31</u> mg/l
E	Date of last DBP test:	<u>September 26, 2017</u>
F	THM - Qtr Average:	<u>2.96</u> ug/l
G	Haa5 - Qtr Average:	<u>0</u> ug/l

### Asbestos

A	Date of last test:	<u>Waiver - Testing Not Required</u>
B	Asbestos Result:	<u></u> million fibers per liter

Comments

# Violations and Significant Deficiencies

**Black Hawk Water User District**

**EPA ID: 0043**

Violations From **January 1, 2013** To **January 1, 2018**

Violation Type	Parameter	Date	Status
Lack of Certified Operator	Certified Operator	02/01/2017	Reminder Notice
	DBP		Compliance Achieved
Exceedance of Allowable Contaminant Level	Total Coliform Bacteria	07/01/2015	Public Notice Requested
	Bacteriological		Compliance Achieved
	Bacteriological		Public Notice Received
Failure to Take Source Samples	E. Coli	07/26/2015	Public Notice Requested
	E. Coli		Public Notice Received
	E. Coli		Compliance Achieved
Failure to Take Source Samples	E. Coli	07/26/2015	Public Notice Requested
	E. Coli		Public Notice Received
	E. Coli		Compliance Achieved
Failure to Take Source Samples	E. Coli	07/26/2015	Public Notice Requested
	E. Coli		Public Notice Received
	E. Coli		Compliance Achieved
Failure to Take Source Samples	E. Coli	07/26/2015	Public Notice Requested
	E. Coli		Public Notice Received
	E. Coli		Compliance Achieved

Significant Deficiency	Date Identified	Date Corrected

**EPA ID#: 0043 System Name: Black Hawk Water User District**

Sampler- Ms Cindy Swanson Work Phone-(605)787-5777  
 Title- Utilities Manager  
 Address- PO Box 476  
 Black Hawk SD 57718-0476

Location- City: Black Hawk County: Meade  
 Service Area- Other residential areas  
 PWS Owner Type- Private Ownership  
 Water Supply Type- Groundwater Supply

Population Served- 3,750 Service Connections- 1,500

**Sources for Black Hawk Water User District**

Source	Name	Year Built	Depth (feet)	Diameter (inches)	Availability	Type	Vulnerability	Treatment
01	#1	1949	758	8	Emergency	Groundwater	Vulnerable	No Treatment
03	#3	1982	340	7	Emergency	Groundwater	Vulnerable	No Treatment
04	TREAT SITE - WELL #4				Permanent	Treatment Plant	Non-Vulnerable	Aeration Disinfection - Gas Chlorine Fluoridation - H2SiF6
11	TREAT SITE - WELL #5				Permanent	Treatment Plant	Non-Vulnerable	Aeration Disinfection - Gas Chlorine Fluoridation - H2SiF6
12	WELL #4	1986	1180	8	Permanent	Groundwater	Vulnerable	Treatment At Plant
13	WELL #5	1999	1220	10	Permanent	Groundwater	Non-Vulnerable	Treatment At Plant

# EPA ID#: 0043 System Name: Black Hawk Water User District

## Common Ion Data

(All chemical data are reported in milligrams per liter (mg/l) except pH and Langlier Index)

Please refer to Private Well Data for more information about these test results.

Source	Type	Date	TDS	Conductance	pH	Alk-M	Alk-P	Na	K	Ca	Mg	Fe	Mn	Cl	SO4	HCO3	CO3	Hardness	Langlier	NO3	F
02	Raw	08/27/85	274	525	7.31	232	0	3	4.0	58.0	22.0	31.00	0.03	1.0	58	283	0	237	-0.19	0.2	0.31
03	Raw	08/27/85	228	470	7.41	240	0	2	3.0	50.0	21.0	0.13	0.03	1.0	12	293	0	213	-0.18	0.3	0.28
Averages			251	498	7.36	236	0	3	3.5	54.0	21.5	15.57	0.03	1.0	35	288	0	225		0.3	0.30

Source	Type	Date	TDS	Conductance	pH	Alk-M	Alk-P	Na	K	Ca	Mg	Fe	Mn	Cl	SO4	HCO3	CO3	Hardness	Langlier	NO3	F
01	Treated	08/27/85	244	490	7.03	180	0	4	4.0	52.0	21.0	0.16	0.03	1.0	18	220	0	218	-0.39	0.1	2.23
04	Treated	11/09/93	229	440	7.74	196	0	2	1.3	56.2	22.6	0.02	0.02	5.1	14	239	0	233	+0.35	0.3	1.36
04	Treated	03/06/97	189	390	7.70	200	0	2	1.0	44.0	24.0	0.05	0.03	1.0	9	244	0	209	+0.20	0.3	0.30
04	Treated	09/29/99	210	403	7.09	168	0	1	2.0	37.0	23.0	0.23	0.01	3.0	11	205	1	185	-0.65	0.3	11.90
11	Treated	05/14/03	260	472	7.19	256	0	2	1.0	49.3	34.8	0.04	0.02	0.0	0	312	0	266	-0.20	0.3	1.28
04	Treated	05/14/03	234	411	6.66	143	0	3	1.2	48.4	26.3	0.40	0.00	3.0	0	174	0	229	-0.98	0.3	27.20
04	Treated	01/25/06	183	415	6.80	95	0	3	1.1	38.2	24.9	0.05	0.01	5.0	20	116	0	198	-1.14	0.5	45.20
11	Treated	01/25/06	222	482	7.59	248	0	2	0.8	44.2	33.2	0.05	0.01	3.3	25	302	0	247	+0.13	0.5	1.17
04	Treated	11/05/08	185	396	7.68	196	0	2	1.1	34.2	24.1	0.05	0.01	1.0	10	239	0	185	+0.00	0.5	2.22
11	Treated	11/05/08	215	480	7.76	252	0	2	0.7	40.1	32.6	0.05	0.01	0.8	10	308	0	234	+0.26	0.3	1.37
04	Treated	03/27/12	204	389	7.95	191	0	4	1.6	42.3	23.4	0.05	0.01	2.2	11	232	0	202	+0.35	0.5	1.28
11	Treated	03/27/12	248	478	8.05	248	0	3	1.2	48.1	31.9	0.51	0.01	1.4	10	303	0	252	+0.62	0.2	0.84
11	Treated	02/04/15	242	472	7.97	250	0	2	1.0	44.3	33.7	0.06	0.00	2.0	0	305	0	250	+0.51	0.7	0.50
04	Treated	02/04/15	192	391	7.97	190	0	3	1.5	32.8	29.3	0.00	0.00	1.7	11	231	0	202	+0.26	0.3	4.13
Averages			218	436	7.51	201	0	2	1.4	43.7	27.5	0.12	0.01	2.2	11	245	0	222		0.4	7.21

You can contact us by calling  
(605)787-5777 or write us at  
PO Box 476  
Black Hawk SD 57718-0476

# Black Hawk Water User District

## 2017 Drinking Water Report

*It's your tap water!*



EPA ID: 0043





# Water Quality

*Last year, the Black Hawk Water User District monitored your drinking water for possible contaminants. This brochure is a snapshot of the quality of the water that we provided last year. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. We are committed to providing you with information because informed customers are our best allies.*

## Water Source

We serve more than 3,750 customers an average of 491,000 gallons of water per day. Our water is groundwater that we produce from local wells. The state has performed an assessment of our source water and they have determined that the relative susceptibility rating for the Black Hawk Water User District public water supply system is medium.

For more information about your water and information on opportunities to participate in public meetings, call (605)787-5777 and ask for Cindy Swanson.

## Additional Information

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 can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- *Microbial 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 stormwater runoff, 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, urban stormwater runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

- *Radioactive contaminants*, 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, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. 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 calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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 can be obtained by calling the Environment Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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 Black Hawk Water User District public water supply system 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 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://www.epa.gov/safewater/lead>.

## Detected Contaminants

The attached table lists all the drinking water contaminants that we detected during the 2017 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 – December 31, 2017. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

## 2017 Table of Detected Contaminants For Black Hawk Water User District (EPA ID 0043)

### Terms and abbreviations used in this table:

- \* *Maximum Contaminant Level Goal(MCLG): 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.*
- \* *Maximum Contaminant Level(MCL): 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.*
- \* *Action Level(AL): the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow. For Lead and Copper, 90% of the samples must be below the AL.*
- \* *Treatment Technique(TT): A required process intended to reduce the level of a contaminant in drinking water. For turbidity, 95% of samples must be less than 0.3 NTU*
- \* *Running Annual Average(RAA): Compliance is calculated using the running annual average of samples from designated monitoring locations.*

### Units:

- \*MFL: million fibers per liter
- \*mrem/year: millirems per year(a measure of radiation absorbed by the body)
- \*NTU: Nephelometric Turbidity Units
- \*pCi/l: picocuries per liter(a measure of radioactivity)
- \*ppm: parts per million, or milligrams per liter(mg/l)
- \*ppb: parts per billion, or micrograms per liter(ug/l)
- \*ppt: parts per trillion, or nanograms per liter
- \*ppq: parts per quadrillion, or picograms per liter
- \*pspm: positive samples per month

Substance	90% Level	Test Sites > Action Level	Date Tested	Highest Level Allowed (AL)	Ideal Goal	Units	Major Source of Contaminant
Copper	0.3	0	08/31/17	AL=1.3	0	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead	4	0	08/31/17	AL=15	0	ppb	Corrosion of household plumbing systems; erosion of natural deposits.

Substance	Highest Level Detected	Range	Date Tested	Highest Level Allowed (MCL)	Ideal Goal (MCLG)	Units	Major Source of Contaminant
Alpha emitters	4	ND - 4	07/21/14	15	0	pCi/l	Erosion of natural deposits.
Fluoride	0.76	0.61 - 0.76	07/25/17	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate (as Nitrogen)	0.823		02/21/17	10	10	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Total trihalomethanes (RAA)	2.96		09/26/17	80	0	ppb	By-product of drinking water chlorination. Results are reported as a running annual average of test results.

Please direct questions regarding this information to Ms Cindy Swanson with the Black Hawk Water User District public water system at (605)787-5777.

**2017 Information on Violations For Black Hawk Water User District (EPA ID 0043)**

*(This Drinking Water Report can be used as a Tier III Public Notice if distributed to each customer within 12 months of when the system was notified of the violation.)*

<b>Violation Type</b>	<b>Parameter</b>	<b>Date System Notified</b>	<b>Duration In Months</b>	<b>Health Effects Language</b>	<b>Action Taken By Your System</b>
Lack of Certified Operator	DBP Stage 1	03/15/17			Back in compliance.

For additional information concerning any violation please contact Ms Cindy Swanson with the Black Hawk Water User District public water system at (605)787-5777.