

# Dakota Dunes CID Drinking Water Information

(System Information, Sampling Requirements, and Compliance Report)



## Secretary Award For Drinking Water Excellence

**Population Served:** 3,000      **System Population:** 3,000

**Certified Operator:** Mr Pat Freeman  
PO Box 1997  
Dakota Dunes, SD 57049

**Work Phone:** (605)232-4211  
**Home Phone:**  
**Cell Phone:**  
**Fax:** (605)235-1447  
**Email:** kim.hoffman@dakotadunes.com

**Financial Contact:** Ms Kim Hoffman  
PO Box 1997  
Dakota Dunes, SD 57049

**Work Phone:** (605)232-4211  
**Home Phone:**  
**Cell Phone:**  
**Fax:** (605)235-5047  
**Email:** kim.hoffman@dakotadunes.com

**Other Contacts:**

**Last Inspection:** October 3, 2017

**Type of System:** Community      **Area Served:** Union County

**Number of Service Connections:** 1,326      **Contamination Risk:** low

**Water Purchased From:** Iowa

**PWS Owner Type:** Private Ownership      **Service Area:** Housing Development

**Contract Laboratory:** Sioux Falls Health Laboratory

# Monitoring/Reporting - Entry Point

Dakota Dunes CID

EPA ID: 2093

## SAMPLING

Entry point: Treatment Plant

	Chemical	Sampling Frequency	Waivers	Taken Last	Due Next	Notes
1	Inorganic Chemicals					
	A. Antimony	Every nine years	Yes	Nov-14		
	B. Arsenic	Every nine years	Yes	Nov-14		
	C. Barium	Every nine years	Yes	Nov-14		
	D. Beryllium	Every nine years	Yes	Nov-14		
	E. Cadmium	Every nine years	Yes	Nov-14		
	F. Chromium	Every nine years	Yes	Nov-14		
	G. Cyanide		Yes			State-wide waiver
	H. Fluoride		No			This system fluoridates
	I. Mercury	Every nine years	Yes	Nov-14		
	J. Nickel	Every nine years	Yes	Nov-14		
	K. Selenium	Every nine years	Yes	Nov-14		
	L. Thallium	Every nine years	Yes	Nov-14		
2	Radiological Chemicals	Every nine years	N/A			
3	VOC Chemicals	Quarterly	No	Jul-16	2019	
4	SOC Chemicals					
	A. Method 515.1	Triennially	No	May-16	2019	
	B. Method 524	Triennially	No	May-16	2019	
	C. Method 525	Triennially	No	May-16	2019	
	D. Method 531.1	Triennially	No	May-16	2019	
	E. Method 547	Triennially	No	May-16	2019	
	F. Method 548	Triennially	No	May-16	2019	
	G. Method 549	Triennially	No	May-16	2019	
5	Nitrate	Annually	N/A	Aug-17		
6	Nitrite	Triennially	N/A	Aug-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>36</u>
B	Samples required:	<u>Three Samples Each Month.</u>
C	Survey samples:	<u>0</u>
D	Safe samples:	<u>36</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>August 30, 2016</u>
B	Samples required:	<u>10</u>
C	Sampling Frequency	<u>Triennially</u>
D	Date Due Next	<u>2019</u>
E	Lead - 90% Level	<u>6.1</u> Action Level - 15 ug/l
F	Copper 90% Level	<u>0.3</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>36</u>
B	Samples required:	<u>Three Samples Each Month.</u>
C	Last Qtr Cl Residual:	<u>0.39</u> mg/l
D	Running Annual Average:	<u>0.51</u> mg/l
E	Date of last DBP test:	<u>August 7, 2017</u>
F	THM - Qtr Average:	<u>5.31</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

Dakota Dunes CID

EPA ID: 2093

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

Violation Type	Parameter	Date	Status
No Violations			

Significant Deficiency	Date Identified	Date Corrected

**EPA ID#: 2093 System Name: Dakota Dunes CID**

Sampler- Mr Pat Freeman Work Phone-(605)232-4211  
 Title- Public Works  
 Address- PO Box 1997  
 Dakota Dunes SD 57049

Location- City: Dakota Dunes County: Union  
 Service Area- Homeowners Association  
 PWS Owner Type- Private Ownership  
 Water Supply Type- Groundwater Supply

Population Served- 2,750 Service Connections- 1,132

**Sources for Dakota Dunes CID**

Source	Name	Year Built	Depth (feet)	Diameter (inches)	Availability	Type	Vulnerability	Treatment
01	WELL #1	1990	113	20	Permanent	Groundwater	Vulnerable	Treatment At Plant
02	WELL #2	1990	116	5	Emergency	Groundwater	Vulnerable	Treatment At Plant
03	TREATMENT PLANT				Permanent	Treatment Plant	Non-Vulnerable	Aeration Coagulation, Softening - KMnO4 Polymers Disinfection - Gas Chlorine Filtration - Green Sand Corrosion Control - Caustic Soda Mixing Device Sedimentation
06	WELL #3 SOUTH	2000	320	12	Permanent	Groundwater	Non-Vulnerable	Treatment At Plant
07	WELL #4 NORTH	2000	320	12	Emergency	Groundwater	Non-Vulnerable	Treatment At Plant
08	SIOUX CITY IOWA WTP	2005			Permanent		Non-Vulnerable	Water Treated By Seller - Purchased Surface Only

**EPA ID#: 2093 System Name: Dakota Dunes CID**

**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
01	Raw	03/30/94	942	1391	7.19	255	0	72	12.3	157.0	41.9	4.78	0.38	43.0	358	311	0	565	+0.29	0.1	0.71
03	Raw	07/28/99	873	1190	7.35	382	0	67	11.7	156.0	37.8	4.78	0.33	30.8	286	466	0	545	+0.51	0.1	0.73
03	Raw	06/20/12	1042	1450	7.38	313	0	88	15.5	179.0	43.7	3.36	0.30	49.0	421	382	0	627	+0.49	0.2	1.30
Averages			952	1344	7.31	317	0	76	13.2	164.0	41.1	4.31	0.34	40.9	355	386	0	579		0.1	0.91

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	03/30/94	957	1284	7.72	155	0	74	13.5	94.3	47.3	0.38	0.06	49.0	365	189	0	430	+0.71	0.6	0.68
03	Treated	07/28/99	829	1140	7.62	256	0	92	11.4	84.9	37.8	0.05	0.03	33.1	284	312	0	368	+0.35	0.2	1.13
03	Treated	02/25/03	848	1230	7.85	345	0	86	11.3	126.0	39.2	0.05	0.02	43.0	282	421	0	476	+0.88	0.8	1.24
03	Treated	05/28/09	1117	1600	7.83	302	0	103	17.5	196.0	43.4	0.03	0.02	58.0	527	368	0	668	+0.95	0.5	1.51
03	Treated	06/20/12	1053	1450	7.87	312	0	92	16.1	178.0	43.3	0.09	0.06	49.0	408	381	0	623	+0.97	0.3	1.28
03	Treated	03/25/15	1030	1450	7.71	319	0	88	16.7	174.0	43.8	0.00	0.00	44.0	377	389	0	615	+0.82	0.7	1.25
Averages			972	1359	7.77	282	0	89	14.4	142.2	42.5	0.10	0.03	46.0	374	343	0	530		0.5	1.18

You can contact us by calling  
(605)232-4211 or write us at  
PO Box 1997  
Dakota Dunes SD 57049

# Dakota Dunes CID

## 2017 Drinking Water Report

*It's your tap water!*



EPA ID: 2093



# Water Quality



## *Secretary's Award*

*The Dakota Dunes CID has supplied seventeen consecutive years of safe drinking water to the public it serves and has been awarded the Secretary's Award for Drinking Water Excellence by the South Dakota Department of Environment and Natural Resources. 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 3,000 customers an average of 962,000 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 Dakota Dunes CID public water supply system is low.

For more information about your water and information on opportunities to participate in public meetings, call (605)232-4211 and ask for Kim Hoffman.

### **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 Dakota Dunes CID 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.

The Dakota Dunes CID public water system purchases 15% of their water from Iowa.

## 2017 Table of Detected Contaminants For Dakota Dunes CID (EPA ID 2093)

### 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
- \*pCi/l: picocuries per liter(a measure of radioactivity)
- \*ppt: parts per trillion, or nanograms per liter
- \*mrem/year: millirems per year(a measure of radiation absorbed by the body)
- \*ppm: parts per million, or milligrams per liter(mg/l)
- \*ppq: parts per quadrillion, or picograms per liter
- \*NTU: Nephelometric Turbidity Units
- \*ppb: parts per billion, or micrograms per liter(ug/l)
- \*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	08/08/16	AL=1.3	0	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead	6	0	08/11/16	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
Barium	0.017		11/17/14	2	2	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Chromium	1.4		11/17/14	100	100	ppb	Discharge from steel and pulp mills; erosion of natural deposits.
Fluoride	1.48	0.55 - 1.48	10/24/17	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate (as Nitrogen)	0.3		08/02/17	10	10	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Selenium	1.2		11/17/14	50	50	ppb	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
Total trihalomethanes (RAA)	5.31		08/07/17	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 Mr Pat Freeman with the Dakota Dunes CID public water system at (605)232-4211.

***2017 Information on Violations For Dakota Dunes CID (EPA ID 2093)***

*(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>
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For additional information concerning any violation please contact Mr Pat Freeman with the Dakota Dunes CID public water system at (605)232-4211.