

2023 Snapshot Report



### Snapshot History

In 2000, the IOWATER program (Iowa DNR) began monitoring events throughout the state of Iowa to provide a 'snapshot' of water quality in Iowa. Several years ago, the DNR discontinued the IOWATER program (1999-2016) but events continued through Iowa Environmental Council with Susan Heathcote. In 2022, Polk County Conservation Water Quality Monitoring Program, already monitoring 70 sites throughout Polk County twice a month, accepted management of the annual snapshot events. Twice a year field monitors and volunteers monitor over 100 Snapshot sites on streams, ponds, and lakes throughout Polk County. Field data obtained include weather, water temperature, flow, odor and color, pH, dissolved oxygen, chloride, and nutrients (nitrates, nitrites, and phosphates). In addition, lab samples are collected at over 30 sites and analyzed for E coli used to indicate the potential presence of pathogens.

Each year, field monitors and volunteers record hundreds of hours to make the events a success. These events are made possible through their dedication and the commitment of the partnering organizations who share their employees with us. Thank you to Des Moines Water Works for providing lab analysis and continued support.

Snapshot events are key to our program, allowing Iowans to become actively involved in their local watersheds while helping to paint a picture of the water quality of our waterways. Event results are uploaded to the EPA's water quality exchange and **MyWaterWay** websites.

#### **Partners**

City of Altoona City of Ankeny City of Clive City of Des Moines Des Moines Parks and Recreation Des Moines Water Works City of Johnston City of and West Des Moines West Des Moines Parks and Recreation Izaak Walton League Impact 7G Seneca Companies Wells Fargo







# Summary of Site Data

Snapshot events were held on **May 16** and **September 19**, **2023**. Volunteers and field monitors gathered early on Tuesday morning of the event to obtain site assignments, supplies, training and meet their teams. At each event, approximately 100 stream site assessments were completed. Participants also collected lab samples on one third of these sites. These lab samples were then analyzed by Des Moines Water Works.

Results were tabulated for each stream site assessment. Detailed individual site field assessments and lab results are available on the EPA's water quality exchange and <u>MyWaterWay</u> websites and on site assessment pages that follow the data summary

**WEATHER** The drought continued to affect sites throughout Polk County in 2023 and resulted in fall assessments reporting dry sites. These are indicated by No Results or "NR" on the site assessments.

	Spring	Fall
# Completed Assessments:	111	90
# Lab Samples Analyzed:	34	34
Weather:	Sunny	Cloudy and rain
Air Temperature Range: (Degrees Fahrenheit)	58-82	58-72

#### WATER FLOW

	Dry	Stagnant	Slow	Moderate	Fast	Torrent	Not Reported
Spring	0	9	44	44	4	0	10
	0%	8%	40%	40%	4%	0%	9%
Fall	8	13	36	21	5	0	7
	9%	14%	40%	23%	6%	0%	8%

#### WATER TEMPERATURE (degrees Fahrenheit)

Spring				Fall			
<u>&lt; 70</u>	<u>70-80</u>	<u>&gt; 80</u>	Not reported	<u>&lt; 70</u>	<u>70-80</u>	<u>&gt; 80</u>	Not reported
90	15	0	6	76	1	0	12
81%	14%	0%	5%	84%	1%	0%	14%





### Water Color and Odor

### WATER COLOR AND ODOR Spring

No odor and clear water	Odor and/	or color present
82		26
74%		19%
Site # Abbreviation	Color	<u>Odor</u>
977112 (Site WC3)	Green	
977329 Unnamed creek - Hartford Ave	Green	
977083 (Site FRC2)	Milky	
977110 (Site WC1)	Milky	
977301 Fourmile Creek	Milky	
925036 Beaver Creek	Muddy	
977063 (Site Beaver Ck Creekside 2)	Muddy	
977071 (Site FC1)	Muddy	
977100 (Site NWC4)	Muddy	
977120 Beaver Creek	Muddy	
977159 (Site LBC3)	Muddy	
977160 (Site Beaver Creek at Prairie Point)	Muddy	
977325 Crawford Creek	Muddy	
977326 Case Lake Inflow	Muddy	
977096 (Site NWC Trib 2)	Other	
977089 (Site Leetown Creekway 2)	Tea-Color	
977156 (Site CC3)	Tea-Color	
977333 Greenwood pond inflow - west side	Tea-Color	
977335 Greenwood pond outflow	Tea-Color	
977116 (Site YC1)		Fishy
977326 Case Lake Inflow		Fishy
977329 Unnamed creek - Hartford Ave		Fishy
977334 Greenwood pond inflow on east side		Other-Sulphur
977117 (Site YC2)		Scum/Odor
977189 Saylor Creek		Scum/Odor

#### 2023 Snapshot Report POLK COUNTY

WATER QUALITY MONITORING PROGRAM



### Water Color and Odor

### WATER COLOR AND ODOR Fall

40 55%	33 45%	
Site # Abbreviation	Odor	Color
977003 YYD		Tea-Color
977012 GLU		Muddy
977059 (Site BC1)		Tea-Color
977061 (Site BC3)		Tea-Color
977071 (Site FC1)		Muddy
977076 (Site FMC4)		Tea-Color
977077 (Site FMC5)		Muddy
977083 (Site FRC2)		Muddy
977088 (Site Leetown Creekway 1)		Muddy
977089 (Site Leetown Creekway 2)		Muddy
977090 (Site LFMC1)		Muddy
977091 (Site LFMC2)		Muddy
977092 (Site MC1)		Tea-Color
977095 (Site NWC Trib 1)		Muddy
977096 (Site NWC Trib 2)		Muddy
977099 WNW		Muddy
977100 (Site NWC4)		Muddy
977101 (Site NWC5)		Muddy
977102 (Site NWC6)		Muddy
977112 (Site WC3)	other-decaying vegetation	Muddy
977114 (Site WC5)		Muddy
977116 (Site YC1)		Tea-Color



WATER QUALITY MONITORING PROGRAM



WATER QUALITY MONITORING PROGRAM Polk County Conservation Water Quality Monitoring Program

# Transparency

**TRANSPARENCY** is evaluated using a secchi disk (ponds and lakes) or transparency tube with secchi disk at bottom.

	Spring Range	12 – 60+ cm	
Less than 20 cm	<u>20-39 cm</u>	<u>40-59 cm</u>	60 cm or greate
2	7	26	68
2%	7%	25%	66%
Site # Abbreviation	Site # Abbreviation	Site # Abbreviation	
DGW 977333	BBV 977061 (BC3)	BBV 925036	All other sites
SLL 977164 (Saylorville Lake	e) CCM 977156 (CC3)	BBV 977059 (BC1)	
	CLI 977326	BBV 977060 (BC2)	
	DSM 977329	BBV 977062 (Creekside 1)	
	SSP 977107 (SC1)	BBV 977063 (Creekside 2)	
	SSY 977189	BBV 977064 (Beaver Creek Elem.)	
	977088 (Leetown Creekway 1)	BBV 977120	
		BBV 977160 (Prairie Point)	
		BLB 977159 (LBC3)	
		CCW 977325	
	A THE WAY	GLU 977012	
	1 3 CM 2 1 2 7	GLU 977084 (Grays Trib)	
		MMD 977302	
a Bear the working		SSN 977322	
Start Real Contract		SSP 977108 (SC2)	
	11. 12. 13	SSP 977222 SC3	
		SSP 977242	
28. 10 910		977089 (Leetown Creekway 2)	
X HARDON / C		WGC 977330	
C. T. C. C. C.	See 1 all 1	WWL 977110 (WC1)	
30 10 000		WWL 977111 (WC2)	
		WWL 977112 (WC3)	
		WWL 977113 (WC4)	
2023 Snapshot Rep	ort	WWL 977224 WC8	
OLK COUNTY		YYD 977117 (YC2)	



## Transparency

**TRANSPARENCY** is evaluated using a secchi disk (ponds and lakes) or transparency tube with secchi disk at bottom.

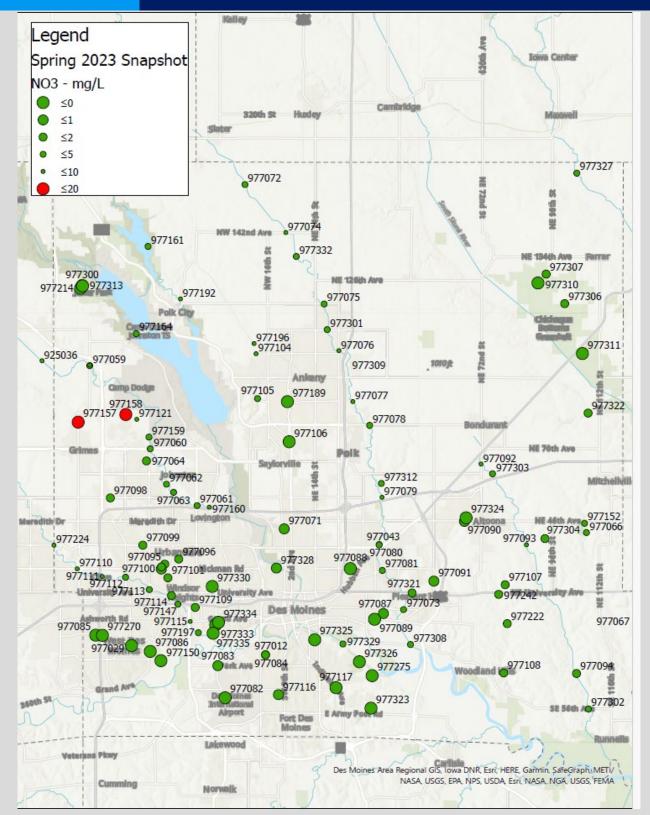
	Fall Range	5 – 60+ cm	
Less than 20 cm	<u>20-39 cm</u>	<u>40-59 cm</u>	<u>60 cm or greater</u>
17	17	15	27
22%	22%	20%	36%
Site # Abbreviation	Site # Abbreviation	Site # Abbreviation	
YYD 977003	977059 Site BC1	CCM 977066	All others
GLU 977012	977061 Site BC3	977071 Site FC1	
977088 Site Leetown Creekway 1	FFM 977073	FFM 977075	
977090 Site LFMC1	977077 Site FMC5	FFM 977079	
977091 Site LFMC2	977083 Site FRC2	977080 Site FMC8	
977096 Site NWC Trib 2	977092 Site MC1	FLH 977087	
WNW 977099	977095 Site NWC Trib 1	977093 Site MC2	
977112 Site WC3	977097 Site NWC1	977094 Site MC3	
977116 Site YC1	977100 Site NWC4	977111 Site WC2	C 100 0 0 0
YYD 977117	977101 Site NWC5	977114 Site WC5	22
977157 Site LBC1	977102 Site NWC6	977115 Site WC6	V.
BBG 977192	977113 Site WC4	977161 Site Big Creek	
FLF 977321	977163 Site Grays Lake	RRO 977196	
DSM 977328	977164 Site Saylorville Lake	977224 WC8	
DSM 977329	MMD 977302	SSP 977242	
DGE 977334	FMC 977312		
DGS 977335	FLF 977324		

#### 2023 Snapshot Report POLK COUNTY WATER QUALITY

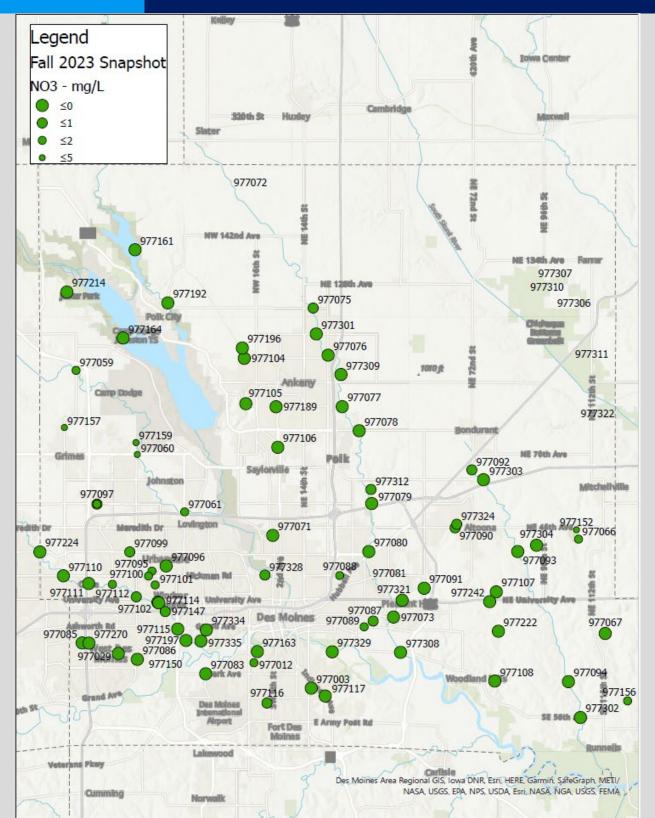
MONITORING PROGRAM



### Nitrate - Spring



## Nitrate - Fall





### Nitrate

**NITRATE** Higher levels of nitrate typical with spring runoff, are more common in agricultural areas than levels found in urban areas. The highest concentrations of nitrate was 20 mg/L, which is above the drinking water threshold of 10 mg/L.

	Spring Range	0 - 20 mg/L	
<u>0-3 mg/L</u>	<u>4-7 mg/L</u>	<u>8-14 mg/L</u>	<u>&gt;14 mg/L</u>
54	32	19	3
50%	30%	18%	3%
	Site # Abbreviation	Site # Abbreviation	Site # Abbreviation
All others	BBV 977059 (BC1)	BBG 977192	BLB 977157 (LBC1)
	BBV 977060 (BC2)	BBV 925036	BLB 977158 (LBC2)
	BBV 977061 (BC3)	BBV 977120	WLW 977225
	BBV 977062 (Creekside 1)	BBV 977160 (Prairie Point)	
	BBV 977063 (Creekside 2)	BLB 977121	
	BCL 977161 (Big Creek)	FFM 977074 (FMC2)	
	BLB 977159 (LBC3)	FFM 977076 (FMC4)	
	CCM 977066	FFM 977077 (FMC5)	
	CCM 977152	FFM 977079 (FMC7)	
	CCM 977156 (CC3)	MMD 977092 (MC1)	
	DSM 977329 FFM 977043	MMD 977093 (MC2) RRC 977104 (RC1)	
	FFM 977043 FFM 977072 (FMC1)	RRO 977196	
	FFM 977075 (FMC3)	WNW 977102 (NWC6)	
	FFM 977078 (FMC6)	WWL 977110 (WC1)	
	FFM 977080 (FMC8)	WWL 977111 (WC2)	
	FFM 977081 (FMC9)	WWL 977115 (WC6)	
	FFM 977301	WWL 977223 WC Trib	
	FFM 977308	WWL 977224 WC8	
	FFM 977332		
	FMC 977073 (FMC10)		
	FMC 977312		
	IIN 977327		
	MMD 977302		
	MMD 977303		
	RRC 977105 (RC2)		
	SLL 977164 (Saylorville Lake)	<b>3</b>	Nitrate Nitrogen ppm
	WNW 977097 (NWC1)		
	WWL 977112 (WC3)	Reio	1 2 5 10 20 50
	WWL 977113 (WC4)		Nitrite Nitrogen ppm
	WWL 977147		
	WWL 977197	0	
		RECT Dip	FIONS: a strip into water for 1 second (or pass under gentle water am) and remove. Do not shake excess water from the test atr 4 the strip level, with pad side up, for 30 seconds. Compare 14 the strip level, with pad side up, for 30 seconds. Compare
Snansh	at Papart	Hole	a the strip level, with pad side up, for 30 seconds. Compare





Nitrate

**NITRATE** Higher levels of nitrate are typical with spring runoff, particularly in agricultural areas, while lower levels are found in fall and the urban areas. Drought may result in a flush of higher nutrient levels when not typical. The highest concentrations at fall 2023 event of nitrate was 5 mg/L, which is not above the drinking water threshold of 10 mg/L.

	Fall Range		0 - 5 mg/L	
<u>0-3 mg/L</u>	<u>4-7 mg/L</u>	<u>8-14 mg/L</u>	<u>&gt;14 mg/L</u>	Not reported
75	4	0	0	11
83%	4%	0%	0%	12%
				Dry unless *indicated
	Site # Abbreviation			Site # Abbreviation
All others	BC2 977060			C04 977310
	CCM 977152			C38 977311
	LBC1 977157			CBL 977306
	LBC3 977159			CCR 977307
				DGW 977333
				FFM 977043 *
				FFM 977072 *
				FFM 977081 *
				JJR 977150
				SSN 977322
				WC Trib 977223
				*unsafe due to weather or access conditions

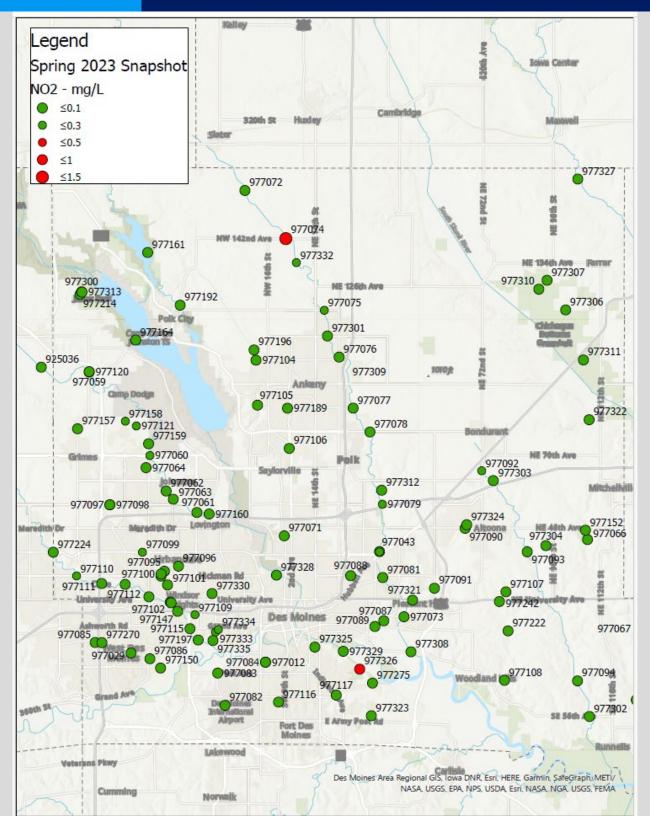


### 2023 Snapshot Report POLK COUNTY

WATER QUALITY MONITORING PROGRAM

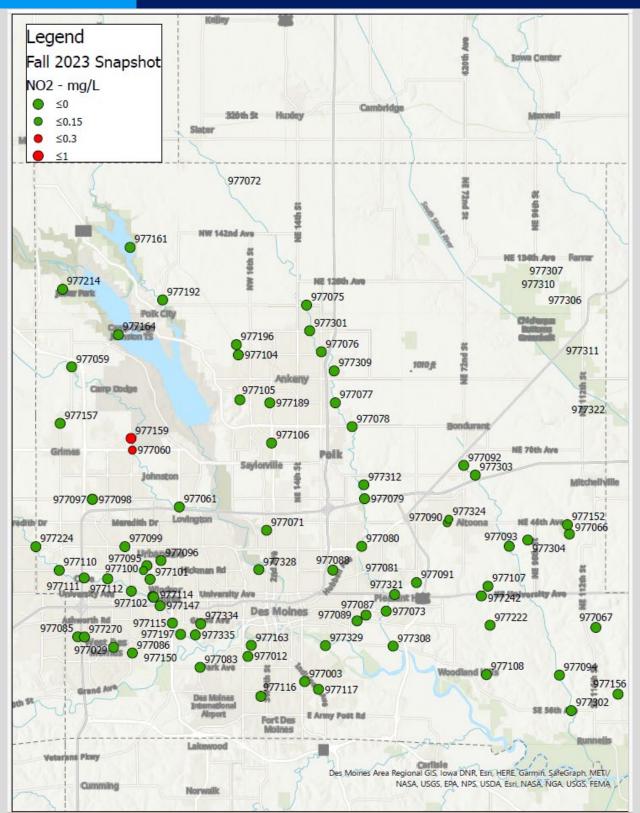


### Nitrite - Spring





### Nitrite - Fall





## Nitrite



**NITRITE** values ranged from 0 - 1.5 mg/L, well above the threshold of 0.3 mg/L. Most site assessments reported 0 mg/L. Any presence of nitrite is unexpected as it is quickly converted when entering water, however, pollution and drought can result in the presence of nitrite. Nitrite concentrations are higher at times when water quality is low, flow slow or stagnant, and dissolved oxygen less available.

#### Spring Range 0-1.5 mg/L

<mark>0 mg/L</mark> 75 80%	<mark>0.1 – 0.9 mg/L</mark> 15 16%	<mark>≥ 1.0 mg/L</mark> 2 2%	Not reported (closed for construction) 2 2%
All others	Site # Abbreviation         BBV 977060 (BC2)         BLB 977121         BLB 977158 (LBC2)         DGE 977334         DGW 977033         FFM 977075 (FMC3)         FFM 977079 (FMC7)         FFM 977080 (FMC8)         FFM 977092 (MC1)         WLW 977225         WNG 977109 (Waveland)         WWL 977110 (WC1)         WWL 977223 WC Trib.	Site # Abbreviation CLI 977326 FFM 977074 (FMC2)	Site # Abbreviation CCM 977067 (CC2) FDR 977309





### Nitrite



**NITRITE** values ranged from 0 – 1.0 mg/L, well above the threshold of 0.3 mg/L. Twelve percent of sites were dry due to persistent drought conditions. Nitrite concentrations are higher in the presence of pollution and poor water quality caused by slow flow or stagnant waters.

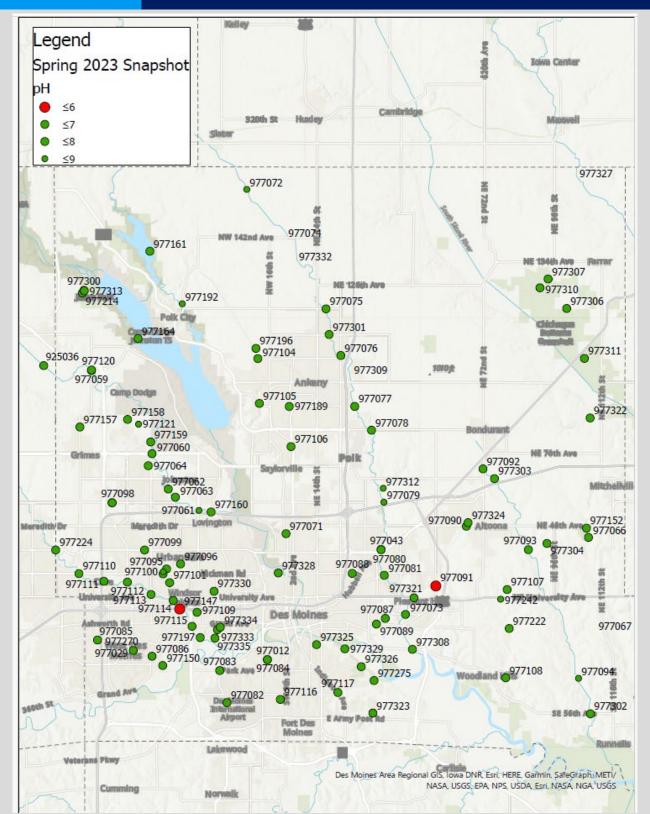
#### Fall Range 0-1 mg/L

<u>0 mg/L</u> 74 83%	<u>0.1 – 0.9 mg/L</u> 3 3%	<u>&gt; 1.0 mg/L</u> ۱ ۱%	Not reported (dry) 11 12%
All other sites	Site # Abbreviation BC2 977060 FLF 977324 LFMC1 977090	Site # Abbreviation LBC3 977159	Site # Abbreviation FFM 977043 FFM 977072 FFM 977081 JJR 977150 WC Trib. 977223
			CBL 977306 CCR 977307 C04 977310 C38 977311 SSN 977322 DGW 977333



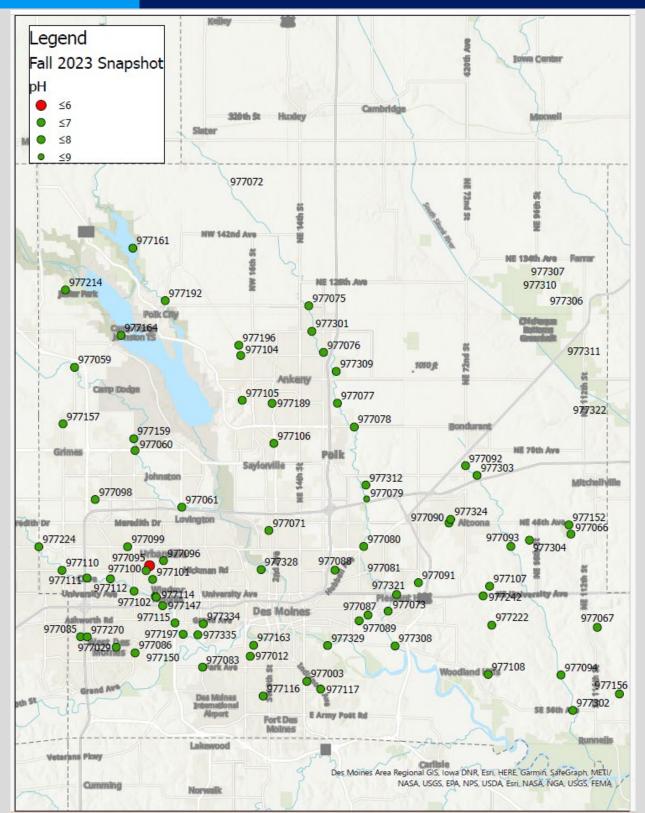


# pH - Spring





## pH - Fall





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Polk County Conservation Water Quality Monitoring Program



**PH** values in the range of 7.0 to 8.5 is considered normal in Iowa. High pH values may be caused by algae growth and low pH values could be associated with wastewater pollution, but also may be caused by organic decomposition and low water levels.

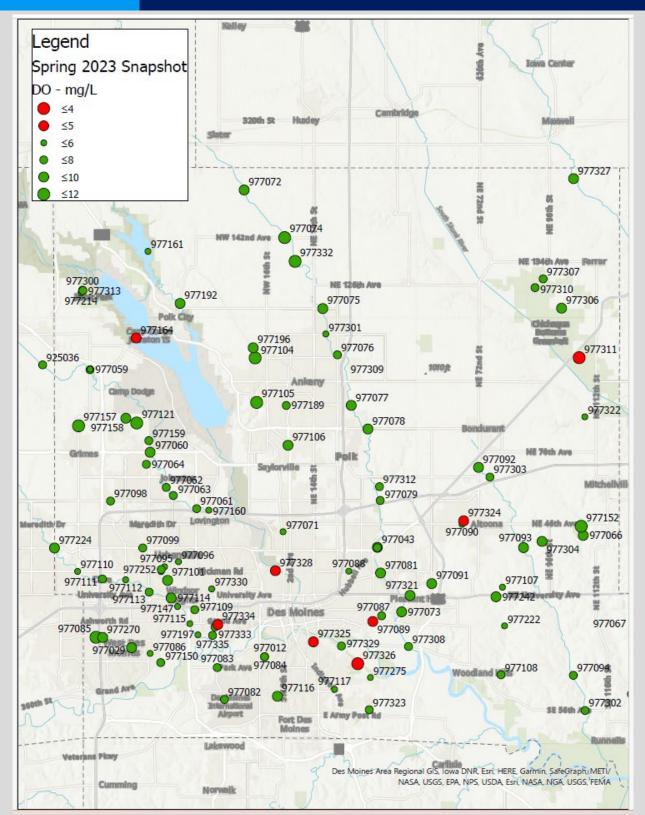
Spring Range 6-9			
<u>5</u> 0	<u>6</u> 2	<u>7 or 8</u>	<u>9</u>
0%	2 2%	92 86%	11 10%
Site # Abbreviation	Site # Abbreviation	Site # Abbreviation	Site # Abbreviation
None	LFL 977091 (LFMC2) WWL 977147	All other sites	BBG 977192 BBV 977061 (BC3) BLB 977121 CCM 977156 (CC3) FFM 977072 (FMC1) FFM 977079 (FMC7) MMD 977094 (MC3) SSP 977242 WNW 977102 (NWC6) WNW 977252
Fall Range 6-9			
<u>5</u>	<u>6</u>	<u>7 or 8</u>	<u>9</u> 2
0 0%	1 1%	76 84%	2%
<u>Site # Abbreviation</u> None	Site # Abbreviation 977095 NWC Trib. 1	Site # Abbreviation All others	<u>Site # Abbreviation</u> 977079 FFM 977097 NWC1

#### 2023 Snapshot Report



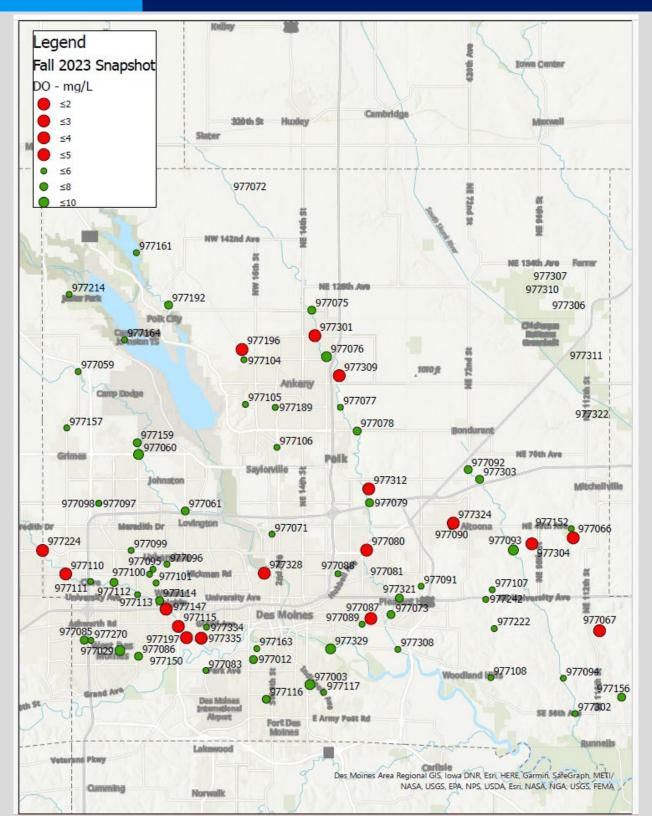


### Dissolved Oxygen - Spring





### Dissolved Oxygen - Fall





# Dissolved Oxygen

**DISSOLVED OXYGEN** is necessary for aquatic life with 5 mg/L considered the lower threshold. There can be many causes of low dissolved oxygen such as high temperatures (especially mixed with low water levels), high amounts of biomass in the streams, and excess nutrients. High temperatures and drought conditions can led to low results.

	Spring Range	<b>4–</b> 12 mg/L	
<u>0-5 mg/L</u> 8	<u>6-7 mg/L</u> 25	<u>8-10 mg/L</u> 67	<u>12 mg/L</u> 9
7%	23%	61%	8%
<u>Site # Abbreviation</u> C38 977311 CCW 977325 CLI 977326 DGE 977334 DSM 977328 FLF 977324 SLL 977164 (Saylorville Lake) 977089 (Leetown Creekway 2)	Site # Abbreviation         BBV 977120         BBV 977160 (Prairie Point)         BCL 977161 (Big Creek)         ELO 977275         FFM 977071 (FC1)         FFM 977086 (JC2)         JPP 977214 (Jester Park Pond)         LFL 977090 (LFMC1)         SSN 977322         SSP 977107 (SC1)         SSP 977088 (Leetown Creekway 1)         WGC 977330         WNW 977095 (NWC Trib 1)         WNW 977097 (NWC1)         WNW 977100 (NWC4)         WWL 977112 (WC3)         WWL 977147         WWL 977197         WWL 977197         WWL 977197	Site # Abbreviation All others	Site # Abbreviation BLB 977121 BLB 977157 (LBC1) CCM 977152 FFM 977074 (FMC2) FFM 977085 (JC1) RRC 977104 (RC1) RRC 977105 (RC2) WLW 977225

#### 2023 Snapshot Report POLK COUNTY WATER QUALITY

MONITORING PROGRAM



# Dissolved Oxygen

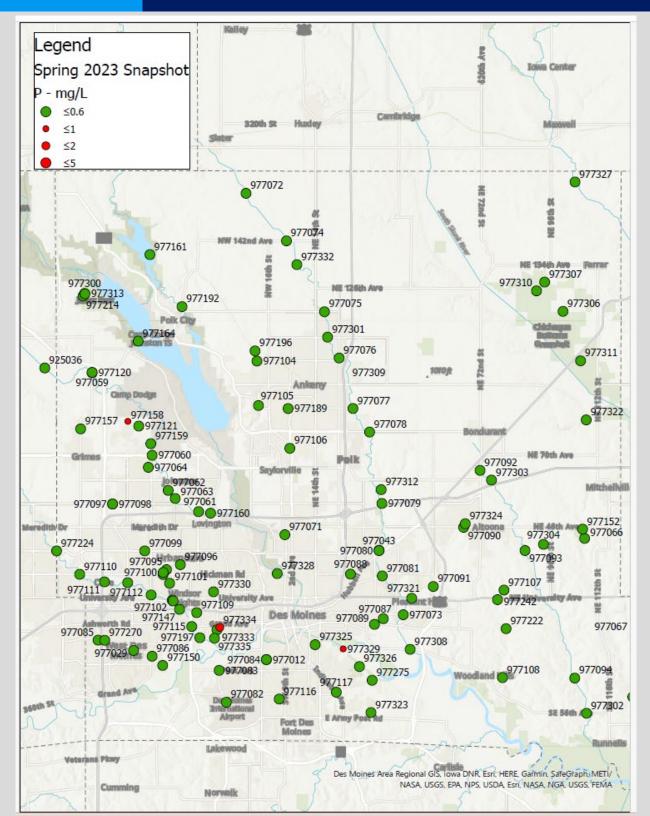
**DISSOLVED OXYGEN** is necessary for aquatic life with 5 mg/L considered the lower threshold. There can be many causes of low dissolved oxygen such as high temperatures (especially mixed with low water levels), high amounts of biomass in the streams, and excess nutrients. High temperatures and drought conditions can led to low results.

	Fall Range	2 – 10 mg/L	
<u>0-5 mg/L</u>	<u>6-7 mg/L</u>	<u>8-10 mg/L</u>	<u>12 mg/L</u>
18	38	23	0
23%	48%	29%	0%
Site # Abbreviation		Site # Abbreviation	
CCM 977066	All others	977060 BC2	None
CCM 977067		977061 BC3	
FDR 977309		BBG 977192	
FFM 977301		CC3 977156	
FLF 977324		DSM 977329	
FLH 977087		FFM 977073	
FMC 977312		FFM 977075	
FMC8 977080		FFM 977078	
MMD 977304		FFM 977079	
RRO 977196		FLF 977321	
WC1 977110		FMC4 977076	
WC6 977115		GLU 977012	
WC8 977224		JC2 977086	
WWL 977147		JJR 977029	
WWL 977197		JJR 977085	
WWL 977225		LBC3 977159	
		MC1 977092	
		MC2 977093	
		MMD 977303	
		WC3 977112	
		WC5977114	
		YC1 977116	
		YYD 977003	



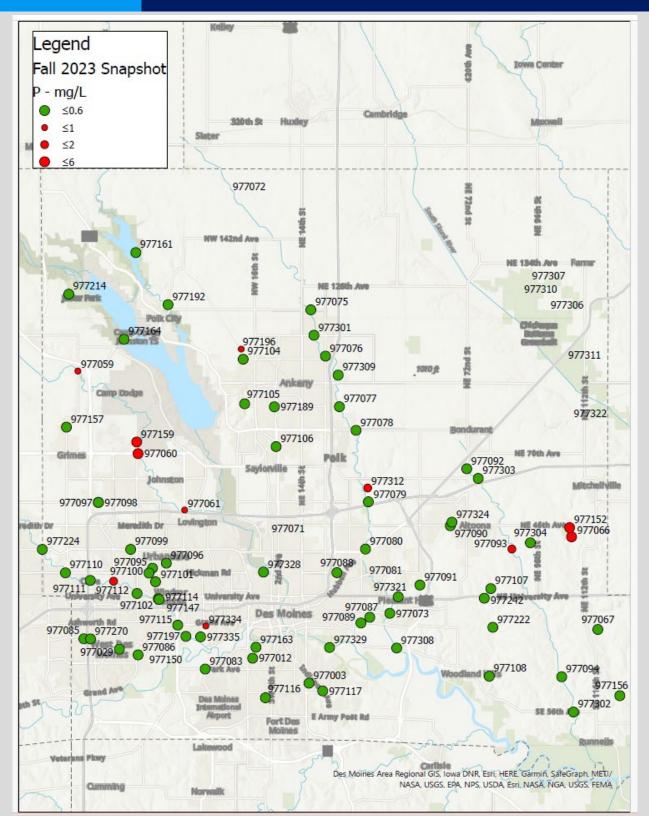


Phosphate - Spring





## Phosphate - Fall





# Phosphate

**PHOSPHATE** is generally present in low concentrations and excess phosphate can cause nutrient enrichment, increasing algae and nuisance aquatic plant growth. Concentrations over 0.6 mg/L are considered abnormal. Like dissolved oxygen, there are many potential causes for elevated phosphates such as fertilizer run off, human/animal waste, and industrial effluents. Natural phenomenon, such as low water levels, can also cause high phosphate readings due to higher concentration of nutrients.

	Spring Range	0 – 2.0 mg/L	
<u>0 – 0.1 mg/L</u>	<u>0.2 mg/L</u>	<u>0.3 – 0.4 mg/L</u>	<u>&gt;0.4 mg/L</u>
71	14	17	6
65%	14%	16%	6%
Site # Abbreviation	Site # Abbreviation	Site # Abbreviation	Site # Abbreviation
All others	BBV 977059 (BC1)	BBV 977061 (BC3)	BLB 977121
	BBV 977060 (BC2)	BBG 977192	BLB 977158 (LBC2)
	BBV 977062 (Creekside 1)	BBV 977063 (Creekside 2)	CCM 977152
	BLB 977157 (LBC1)	BLB 977159 (LBC3)	DGE 977334
	C04 977310	C38 977311	DGW 977333
	CCW 977325	CCM 977066	DSM 977329
	FLH 977087 (Laurel Hill)	CCM 977156 (CC3)	
	GLU 977012	CLI 977326	
	GLU 977084 (Grays Trib)	DGS 977335	
	SLL 977164 (Saylorville Lake)	FFM 977071 (FC1)	
	SSN 977322	FFM 977072 (FMC1)	
	SSP 977222 SC3	FFM 977074 (FMC2)	
	WNW 977096 (NWC Trib 2)	IIN 977327	
	YYD 977117 (YC2)	RRO 977196	
		977088 (Leetown Creekway 1)	
		WNW 977095 (NWC Trib 1)	
		WWG 977109 (Waveland)	







# Phosphate

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		• • • • • • • • • • • • • • • • • • •	
<u>0 – 0.1 mg/L</u>	<u>0.2 mg/L</u>	<u>0.3 – 0.4 mg/L</u>	<u>&gt;0.4 mg/L</u>
22	15	25	15
29%	19%	32%	19%
Site # Abbreviation	Site # Abbreviation	Site # Abbreviation	Site # Abbreviation
Big Creek 977161	BBG 977192	DSM 977328	BC1 977059
FMC8 977080	CC3 977156	DSM 977329	BC2 977060
Grays Lake 977163	DGS 977335	FDR 977309	BC3 977061
JC2 977086	FFM 977078	FFM 977073	CCM 977066
Jester Park Pond 977214	FMC5 977077	FFM 977075	CCM 977067
JJR 977029	FRC2 977083	FFM 977079	CCM 977152
JJR 977270	JJR 977085	FFM 977301	DGE 977334
LFMC1 977090	LFMC2 977091	FLF 977321	FMC 977312
MMD 977302	NWC Trib1 977095	FLF 977324	GLU 977012
MMD 977303	NWC5 977101	FLH 977087	LBC3 977159
NWC2 977098	SC1 977107	FMC 977308	Leetown Creekway1 977088
NWC4 977100	SSP 977242	FMC4 977076	MC2 977093
RRC 977105	WC1 977110	LBC1 977157	NWC1 977097
Saylorville Lake 977164	WC4 977113	Leetown Creekway2 977089	RRO 977196
SSP 977108	YYD 977003	MC1 977092	WC3 977112
SSY 977106		MC3 977094	
SSY 977189		MMD 977304	
WC2 977111		NWC Trib2 977096	
WC8 977224		NWC6 977102	
WCL 977225		RRC 977104	
WWL 977197		SC3 977222	
YC1 977116		WC5 977114	
		WC6 977115	
		WNW 977099	
		YYD 977117	

#### Fall Range 0 – 6.0 mg/L

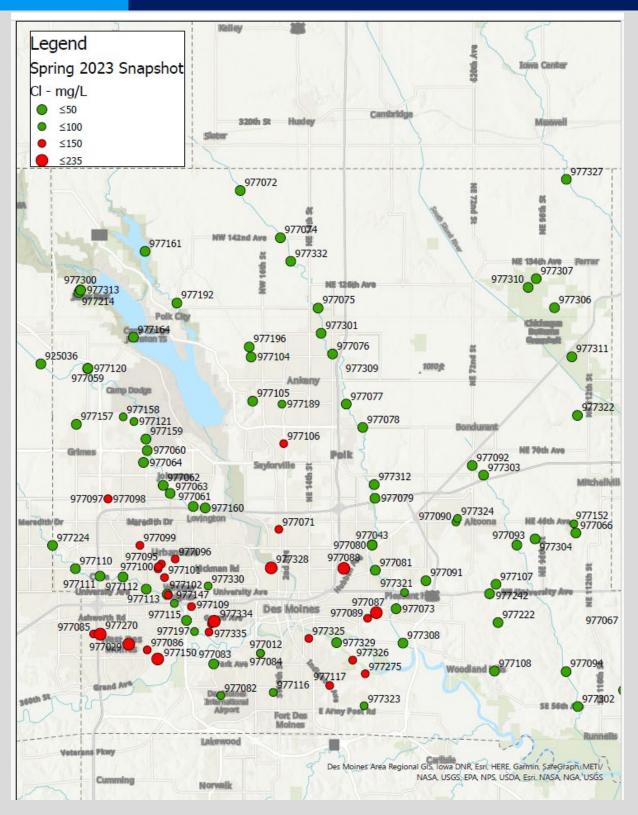




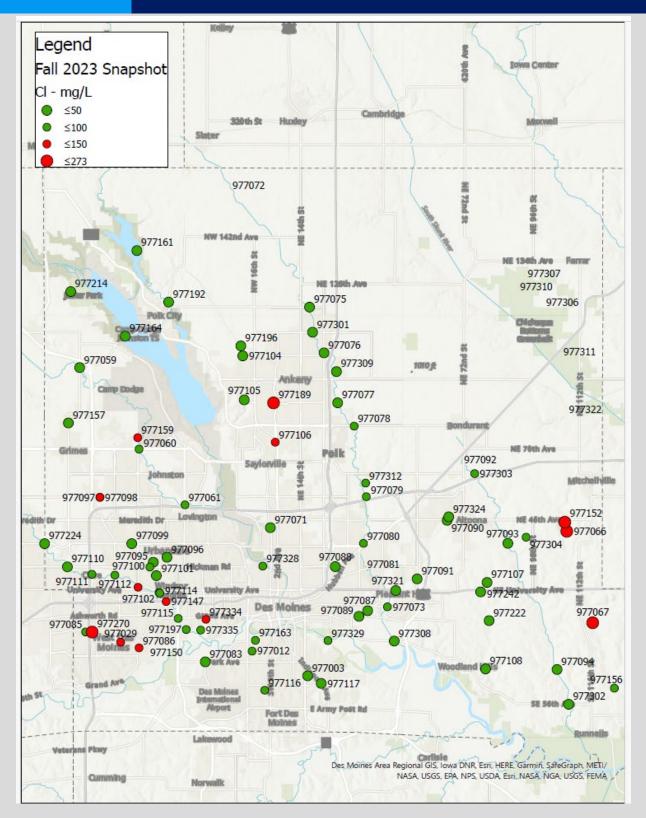




Chloride - Spring



### Chloride – Fall







### Chloride

**CHLORIDE** concentrations above the threshold of 100 mg/L were seen both in spring and fall events. These elevated chloride levels were unexpected as high chloride levels are most common in winter and early spring when road salts are being applied. This may indicate a concerning chronic issue in some of our urban streams. Similar to other nutrients, these elevated levels could be due to low water levels and increased concentration.

	Spring Range	<25 – 235 mg/	ΊL
Below 60 mg/L	<u>60 - 79 mg/L</u>	<u>80 – 98 mg/L</u>	<u>&gt;99 mg/L</u>
65	7	7	29
60%	6%	6%	27%
Site # Abbreviation	Site # Abbreviation	Site # Abbreviation	Site # Abbreviation
All others	CCM 977152	BLB 977121	CCW 977325
	FFR 977082 (FRC1)	BLB 977158 (LBC2)	CLI 977326
	FLF 977321	ELM 977323	DGE 977334
	LFL 977090 (LFMC1)	FLF 977324	DGS 977335
	WGC 977330	GLU 977012	DGW 977333
	WWL 977147	GLU 977084 (Grays Trib)	DSM 977328
	WWL 977197	YYD 977116 (YC1)	ELO 977275
			FFM 977071 (FC1)
			FLH 977087 (Laurel Hill)
			JJC 977150
			JJC 977270
			JJR 977029
T Internet			JJR 977085 (JC1)
Å			JJR 977086 (JC2)
	4		SSY 977106 (Saylor Ck)
9-9-1	24		SSY 977189
			977088 (Leetown Creekway 1)
			977089 (Leetown Creekway 2)
-7			WNW 977095 (NWC Trib 1)
-6-			WNW 977096 (NWC Trib 2)
			WNW 977097 (NWC1)
-5-	6		WNW 977098 (NWC2)
-4-			WNW 977099 (NWC3)
-3-	3		WNW 977100 (NWC4)
			WNW 977101 (NWC5)
-2			WNW 977252
-1-	100		WWG 977109 (Waveland)
ANY AND			WWL 977114 (WC5)

YYD 977117 (YC2)

2023 Snapshot Report POLK COUNTY WATER QUALITY MONITORING PROGRAM



### Chloride

**CHLORIDE** concentrations above the threshold of 100 mg/L were seen both in spring and fall events. These elevated chloride levels were unexpected as high chloride levels are most common in winter and early spring when road salts are being applied. This may indicate a concerning chronic issue in some of our urban streams. Similar to other nutrients, these elevated levels could be due to low water levels and increased concentration.

Below 60 mg/L	<u>60 - 79 mg/L</u>	<u>80 – 98 mg/L</u>	<u>&gt;99 mg/L</u>
45	8	10	15
58%	10%	13%	19%
	Site # Abbreviation	Site # Abbreviation	Site # Abbreviation
All others	DSM 977329	BC2 977060	CCM 977066
	FFM 977073	BC3 977061	ССМ 977067
	FMC8 977080	CC3 977156	CCM 977152
	MMD 977303	DSM 977328	DGE 977334
	MMD 977304	FFM 977079	JC2 977086
	NWC6 977102	Grays Lake 977163	JJR 977029
	WC2 977111	JJR 977085	JJR 977270
	WC5 977114	NWC4 977100	LBC3 977159
		WC3 977112	NWC1 977097
		WC6 977115	NWC2 977098
			SSY 977106
			SSY 977189
	<b>X</b>		WC4 977113
			WWL 977147
			WWL 977197

#### Fall Range <25 - 273



2023 Snapshot Report POLK COUNTY WATER QUALITY MONITORING PROGRAM



# Summary of Site Data

#### LAB ANALYSIS

In addition to field assessment data collection, field monitors and volunteers obtained water samples at 32 (spring) and 33 (fall) sites. Analysis by Des Moines Water Works Lab included 16 substances, most related to water hardness. Those included in this report include total coliforms and E. coli (MPN/100ml) used to indicate a fecal bacteria and nutrients nitrate as N (mg/L), nitrite (mg/L) and Phosphorus-O (mg/L).

Results are used to provide information on the health of the streams using E. coli bacteria as an indicator and comparison of volunteer and field monitor water quality assessment data. Most snapshot sites are designated for swimming and children's recreational uses (either AI, Presumptive A1, or A3) and are required to meet the E. coli primary contact standard. These Water Quality Standards are set by the Iowa Department of Natural Resources and can be found on their website ww.iowadnr.gov.

	Spring	Fall
	977059 BC1	977059 BC1
V//	977060 BC2	977060 BC2
	977066 CC1	977066 CC1
	977061 BC3	977061 BC3
A Cat	977156 CC3	977156 CC3
	977072 FMC1	977072 FMC1
	977075 FMC3	977075 FMC3
	977077 FMC5	977077 FMC5
	977079 FMC7	977079 FMC7
	977073 FMC10	977073 FMC10
	977083 FRC2	977083 FRC2
	977084 Grays Trib	977084 Grays Trib
	977086 JC2	977086 JC2
	977157 LBC1	977157 LBC1
	977159 LBC3	977159 LBC3
	977225 Little Walnut Creek	977090 LFMC1
THE THE	977092 MC1	977091 LFMC2
	977094 MC3	977225 Little Walnut Creek
	977097 NWC1	977092 MC1
	977099 NWC3	977094 MC3
	977102 NWC6	977097 NWC1
	977105 RC2	977099 NWC3
	977106 Saylor Ck	977102 NWC6
	977108 SC2	977105 RC2
	977222 SC3	977108 SC2
	977111 WC2	977222 SC3
	977113 WC4	977111 WC2
	977115 WC6	977113 WC4
2023 Snapshot Report	977224 WC8	977115 WC6
DOLK COUNTY	977223 WC Trib	977224 WC8
POLK COUNTY	977117 YC2	977088 Leetown Creekway 1
	977088 Leetown Creekway 1	977117 YC2
WATER QUALITY		977163 Grays Lake
MONITORING PROGRAM		



# Spring Lab Data

Spring 2023	Results MPN/			Re	sults in mg	g/L	
5/16/2023	Coliform Bacteria quantitray	E-coli quantitray	anions by ion chromatography				
				Nitrate as	Nitrite as	Phosphorus-	
Sample ID	Total Coliforms	E. coli	Chloride	N	N	O as P	Sulfate
BC1	>2420	236	35.7	9.22	0.04	0.15	27.4
BC2	>2420	179	38.6	9	0.04	< 0.1	37.3
CC1	>2420	249	42.7	10.42	0.06	0.12	19.9
BC3	>2420	194	40.4	8.65	0.05	< 0.1	39.0
CC3	>2420	770	41.6	7.8	0.06	< 0.1	21.2
FMC1	>2420	1203	47.7	11.61	0.06	0.16	29.7
FMC3	>2420	1414	35.3	10.96	0.11	< 0.1	20.2
FMC5	>2420	435	42.3	10.44	0.08	< 0.1	23.5
FMC7	1986	225	45.7	10.19	0.08	< 0.1	24.8
FMC10	>2420	261	52.4	8.1	0.05	< 0.1	28.9
FRC2	>2420	308	35.9	0.53	0.01	< 0.1	69.6
GRAYS TRIB	>2420	1986	103.9	1.13	ND	< 0.1	62.5
JC2	>2420	285	165.7	0.07	0.01	< 0.1	65.1
LBC1	1986	727	28.9	14.82	0.07	< 0.1	21.6
LBC3	>2420	194	38.3	8.9	0.04	< 0.1	37.1
LFMC1	2420	152	88.7	0.53	0.03	< 0.1	47.0
LFMC2	>2420	1733	67.4	2.22	0.03	< 0.1	40.7
LWC1	>2420	119	39.7	21.05	0.09	< 0.1	37.5
MC1	>2420	222	43.6	13.15	0.1	< 0.1	26.3
MC3	>2420	308	35.6	7.05	0.06	< 0.1	24.5
NWC1	>2420	548	121.3	3.77	0.06	0.23	28.8
NWC3	>2420	365	148.5	0.9	0.04	< 0.1	33.0
NWC6	1986	238	61.3	10.4	0.06	< 0.1	30.2
RC2	>2420	172	41.4	10.05	0.04	< 0.1	31.4
SAYLOR CK	>2420	309	129.0	0.27	0.01	< 0.1	38.8
SC2	2420	517	28.9	3.19	0.08	< 0.1	28.7
SC3	>2420	238	29.7	3.72	0.04	< 0.1	32.9
WC2	2420	205	50.8	11.64	0.07	< 0.1	28.8
WC4	>2420	276	59.5	10.67	0.06	< 0.1	29.8
WC6	>2420	291	75.4	8.89	0.05	< 0.1	33.3
WC8	>2420	249	39.5	13.49	0.09	< 0.1	27.5
WC Trib	>2420	1553	32.2	15.87	0.09	< 0.1	25.3
YC2	>2420	121	124.6	0.15	0.01	< 0.1	67.9
LEETOWN CREEKWAY 2	>2420	548	153.4	0.05	0.01	< 0.1	78.5

Designation	Examples	E coli colonies/100 ml	
A1 and A3	swimming and children's recreational uses	one-time maximum	235
secondary contact recreational uses	fishing, wading, activities with no significant risk of ingesting water	one-time maximum	2880



# Fall Lab Data

Fall 2023	Results MPN	l/100ml		Re	sults in mg	/L	
9/19//2023	Coliform Bacteria quantitray	E-coli quantitray		anions by	/ ion chromato	ography <sup>D</sup> hosphorus-	
Sample ID	Total Coliforms	E. coli	Chloride	Nitrate as N	Nitrite as N	O as P	Sulfate
BC1	24890	3830	52.8	2.23	<0.1	0.2	37.7
BC2	27550	1890	114.3	3.02	0.65	0.73	396.4
BC3	7800	520	99.4	2.17	0.18	0.19	313.7
CC1	13740	850	280.1	6.67	<0.1	2.06	43.2
CC3	32550	1480	80.3	0.06	<0.1	<0.1	35.5
FMC1	141360	2160	86.9	0.05	<0.1	1.49	29.5
FMC10	111990	8620	67.7	0.08	<0.1	0.19	41.4
FMC3	43520	4870	55.9	2.16	<0.1	<0.1	99.9
FMC5	8600	410	54.3	< 0.05	<0.1	<0.1	40.8
FMC7	8360	100	74.9	< 0.05	<0.1	0.37	39.9
FRC2	43520	1730	38.1	0.08	<0.1	<0.1	126.1
GRAY'S TRIB	>241960	198630	45.9	0.95	<0.1	0.18	36.3
JC2	9080	970	111.8	<0.05	0.21	<0.1	81.2
LBC1	198630	9880	31.7	1.58	0.03	<0.1	50.6
LBC3	24810	1340	154.8	4.32	1	1.93	594.1
LWC1	9850	1350	30.9	<0.05	<0.1	<0.1	41.5
MC1	81640	3230	72.3	0.51	<0.1	<0.1	30.5
MC3	24810	2620	17.4	0.06	<0.1	0.26	32.0
NWC1	98040	4870	158.4	0.4	0.31	0.1	50.5
NWC3	173290	3050	57.3	0.8	<0.1	0.11	19.9
NWC6	64880	11120	93.1	0.14	0.16	<0.1	44.3
RC2	5290	100	54.4	< 0.05	<0.1	<0.1	54.8
SC2	54750	2010	30.2	< 0.05	<0.1	<0.1	50.4
SC3	120330	1210	47.9	< 0.05	<0.1	<0.1	52.3
WC2	16640	520	78.9	< 0.05	0.12	<0.1	49.2
WC4	51720	5940	86.4	0.09	<0.1	<0.1	40.2
WC6	241960	20140	102.7	0.16	0.19	0.17	48.5
WC8	9600	980	36.2	< 0.05	<0.1	<0.1	47.7
YC2	>241960	81640	39.6	0.45	<0.1	0.2	27.0
LEETOWN CREEKWAY	>241960	198630	21.0	0.9	<0.1	0.24	18.3
LFMC1	>241960	6240	6.0	0.96	<0.1	<0.1	10.0
LFMC2	>241960	129970	47.0	0.51	<0.1	0.16	22.5
SAYLOR CK	6310	410	115.2	<0.05	0.21	<0.1	35.2

Designation	Examples	<u>E coli colonies/100 m</u>	<u>1</u>
A1 and A3	swimming and children's recreational uses	one-time maximum	235
secondary contact recreational uses	fishing, wading, activities with no significant risk of ingesting water	one-time maximum	2880



# Microbial Source Tracking

Fall 2023

Drake University, Claire Hruby <u>Claire.hruby@drake.edu</u>

#### **Microbial Source Tracking Trial Run**

Water-borne pathogens have the potential to make recreational water users sick. Gray's Lake is a popular beach for Des Moines' residents in the summer months, and, therefore, it is important to study and protect water quality in the lake and its watershed. With a better understanding of where microbial contamination is coming from, it will be possible to target improvements and protect public health more effectively.

On September 19, 2023, Drake Environmental Science and Sustainability students, April Cunningham and Ethan Wing, and Professor Claire Hruby, conducted sampling in conjunction with Polk County Conservation's countywide snapshot. The goal of this effort was to become familiar with the sampling procedures for microbial source tracking (MST) and to determine the possible causes of historically high *E. coli* levels in an unnamed tributary of Gray's Lake in Des Moines.

Microbial source tracking is a method of using genetic sequences that are unique to microbes that live in the guts of specific animal hosts. By looking for these sequences, it may be possible to determine the sources of fecal material in surface waters. The unnamed tributary that runs past the Unitarian Church on Bell Avenue south of Gray's Lake has had consistently high levels of *E. coli* in past snapshot sampling events, therefore, it was a good candidate for a trial run. For this sampling event, three sites were selected: 1) the tributary upstream (south) of the church, 2) the location where the tributary enters Gray's Lake, and 3) the Gray's Lake beach on the north side of the lake.



On the day of the sampling a short downpour occurred, which started around 8:30 am, shortly before the sampling began, and continued for approximately one hour. 2023 has been an exceptionally dry year, and prior to this event, very little precipitation had taken place. It is possible that there would have been little or no flow in the stream if this rain event had not taken place.



## Microbial Source Tracking

Fall 2023

Drake University, Claire Hruby <u>Claire.hruby@drake.edu</u>

The sampling procedure was relatively simple. After putting on gloves, the students filled a sterile syringe, then attached a small filter to the end of the syringe, and they pushed the water through the filter. This process was repeated until the water would no longer pass through the filter, and a water volume was recorded. Next, a vial of preservative was injected into the filter. Last, the filter was placed in a marked envelope with a unique sample code. All samples were shipped a few days later to Jonah Ventures Lab in Denver, Colorado, for analysis.

The results are interesting and even a little surprising. First, at the time of sampling, the worst water quality was found at the discharge point (site #2), where the unnamed tributary enters Gray's Lake. At this location, the actual *E. coli* concentration reported was 198,630 MPN/100ml, and the MST indicated the presence of genes specific to humans (66.33 gene copies/100 milliliters), raccoons (117.33 gc/100ml), swine (565 gc/100ml), bovine (43 gc/100ml), poultry (22 gc/100ml), sheep (1 gc/100ml), and dogs (19.33 gc/100ml). Follow-up with the City of Des Moines water quality staff indicates that they suspect a leaky sewer main may be intersecting the tributary as it passes under Bell Avenue. Additional monitoring would be necessary to confirm this suspicion.

Across the lake at the beach (site #3), no *E. coli* were detected, and only a small concentration of the human waste indicator genes (91.33 gc/100ml) were detected. This is good news, because, at least under the conditions at the time of sampling, it does not appear that the *E. coli* being transported to the lake is reaching the beach. It would be useful to do some additional sampling during wetter and warmer conditions to assess the risk of infections from pathogens at the beach.

At the stream crossing just upstream of the Unitarian Church (site #1), human (18 gc/100ml), raccoon (10.33 gc/100ml), swine (53.33 gc/100ml), and dog-specific (29.33 gc/100ml) genes were found. *E. coli* were not measured at this location. Based on this individual sample, it appears that the watershed upstream of the Unitarian Church is contributing lower levels of fecal waste to the unnamed stream than some source between the Church and Gray's Lake.

These samples were taken in a very urban watershed. Although it is possible that people have farm animals in their backyards, pigs would be very rare. This raises the question of where the swine-specific genetic sequences came from. In some studies, others have found animal-specific genes in human waste that came from meat in human diets. This is the most likely explanation for the presence of these indicators in these samples. One thing to be aware of is that these genetic targets are not all equally sensitive, so one should not assign relative contributions to each animal/human based on the relative concentrations of genes in a single sample unless there are several orders of magnitude differences in the concentrations. For comparison, the concentrations of swine-specific genes found in a water sample shortly after a known swine manure spill in Greene County, Iowa, was on the order of 40,000 gc/100ml. In that case, the primary source of microbial contamination was very clear.

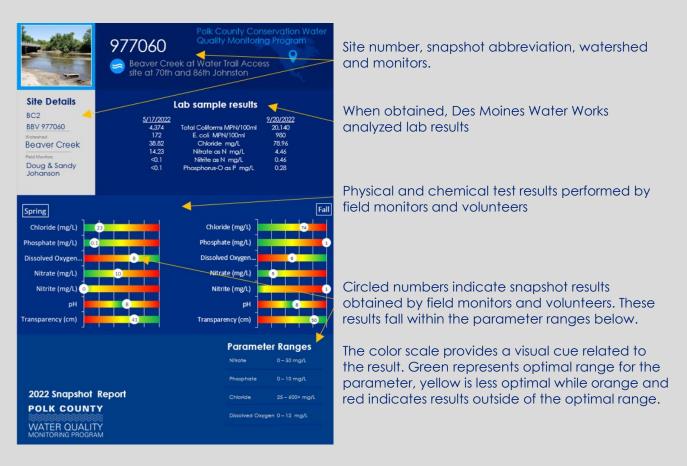
This sampling effort made it clear that microbial source tracking, combined with traditional monitoring techniques, will be helpful for identification of fecal contamination sources. The newly minted Drake University Soil and Water Assessment Team (DuSWAT) is excited to continue this type of work to inform and improve water quality in Iowa. Please contact Claire Hruby at <u>Claire.hruby@drake.edu</u> if you are interested in learning more!



### Site data



Individual site data follows by the numeric site number. Specific site data is provided in the following format:



#### NAVIGATION

Navigating to an individual site can be done three ways.

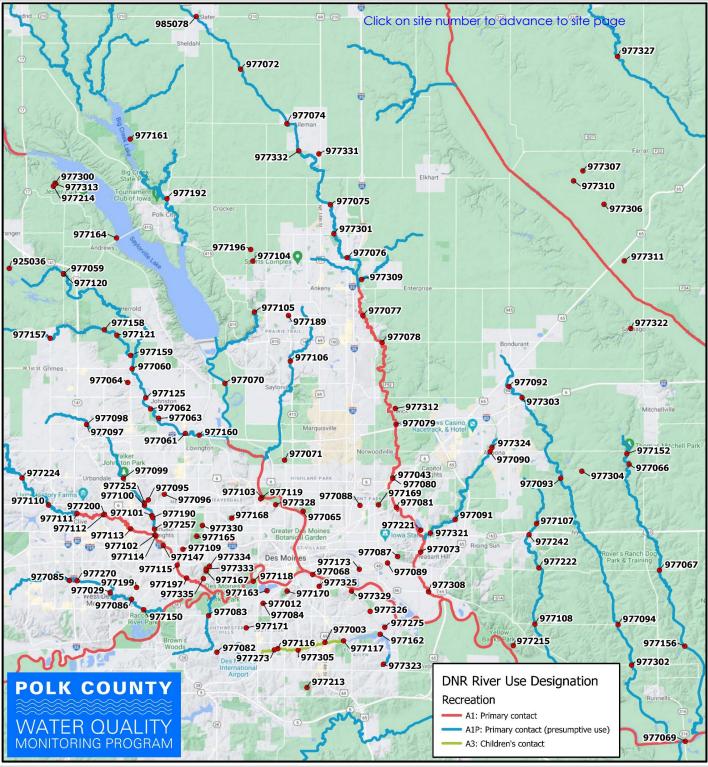
- 1. Use the thumbnail bookmarks to access the information you would like to view.
- 2. Click on the site number on the map found on the following page.
- 3. Simply continue to **page down.**

#### 2023 Snapshot Report POLK COUNTY WATER QUALITY

MONITORING PROGRAM

Polk County Conservation Water Quality Monitoring Program

## Map of Sites



2023 Snapshot Report

Polk County Conservation Water Quality Monitoring Program



### Monitoring Sites

Spring	Fall	Site	Spring	Fall	Site	Spring	Fall	Site
		925036 BB∨			977096 (NWC Trib. 2)			977197 WWL
		977003 YYD			977097 (NWC1)			977214 (Jester Pond)
		977012 Unnamed-into Gray's Lake			977098 (NWC2)			977222 SC3
		977029 JJR			977099 (NWC3)			977223 WC Trib.
		977043 FFM			977100 (NWC4)			977224 WC8
		977059 (BC1)			977101 (NWC5)			977225 Little Walnut Creek
		977060 (BC2)			977102 (NWC6)			977242 SSP
		977061 (BC3)			977104 (RC1)			977252 WNW
		977062 (Creekside 1)			977105 (RC2)			977270 JJE
		977063 (Creekside 2)			977106 (Saylor Ck)			977273 YYD
		977064 (Beaver Creek Elem)			977107 (SC1)			977275 ELO
		977065 (Birdland)			977108 (SC2)			977300 JPW
		977066 (CC1)			977109 WWG			977301 FFM
		977067 CCM			977110 (WC1)			977302 MMD
		977071 (FC1)			977111 (WC2)			977303 MMD
		977072 (FMC1)			977112 (WC3)			977304 MMD
		977073 (FMC10)			977113 (WC4)			977305 YYD
		977074 (FMC2)			977114 (WC5)			977306 CBL
		977075 (FMC3)			977115 (WC6)			977307 CCR
		977076 (FMC4)			977116 (YC1)			977308 FFM
		977077 (FMC5)			977117 (YC2)			977309 FDR
		977078 (FMC6)			977120 BBV			977310 C04
		977079 (FMC7)			977121 BLB			977311 C38
		977080 (FMC8)			977147 WWL			977312 FMC
		977081 FFM			977150 JJR			977313 JPW
		977082 (FRC1)			977152 CCM			977321 FLF
		977083 (FRC2)			977156 (CC3)			977322 SSN
		977084 (Grays Trib.)			977157 (LBC1)			977323 ELM
		977085 JJR			977158 (LBC1)			977324 FLF
		977086 (JC2)			977159 (LBC3)			977325 CCW
		977087 FLH			977160 BBV			977326 CLI
		977088 (Leetown Crkwy 1)			977161 (Big Creek)			977327 IIN
		977089 (Leetown Crkwy 2)			977163 (Gray's Lake)			977328 DSM
		977090 (LFMC1)			977164 (Saylorville Lake)			977329 DSM
		977091 (LFMC2)			977170 MacRae Pond			977330 WGC
		977092 (MC1)			977173 Deans Lake			977332 FFM
		977093 (MC2)			977189 Saylor Creek			977333 DGW
		977094 (MC3)			977192 Big Creek			977334 DGE
		977095 (NWC Trib 1)			977196 Rock Creek			977335 DGS

#### 2023 Snapshot Report POLK COUNTY

WATER QUALITY MONITORING PROGRAM



BBV 925036

Watershed

### BBV 925036

Polk County Conservation Water Quality Monitoring Program





#### Lab sample results

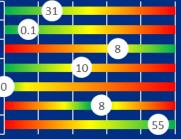
No samples obtained

Field Monitors Spring – Lindsey Page Fall – No Report

**Beaver Creek** 

### Spring Chloride (mg/L)

Phosphate (mg/L) Dissolved Oxygen... Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



Fall Chloride (mg/L) NR Phosphate (mg/L) NR Dissolved Oxygen. NR Nitrate (mg/L) NR Nitrite (mg/L) NR pH NR Transperency (cm) NR

### Parameter Ranges

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 - 12 mg/L

Return to Site Map

### 2023 Snapshot Report





YYD 977003

Watershed Easter Lake

Field Monitors

Spring – Team 10 Fall – Team 10



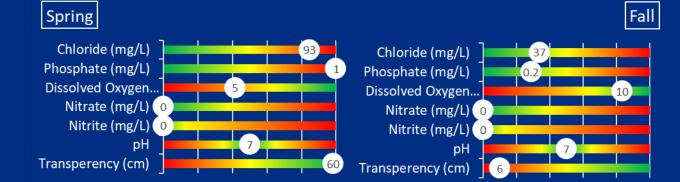
Polk County Conservation Water Quality Monitoring Program



#### Lab sample results

No samples obtained





#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L





## GLU 977012

Substant State along Bell Avenue



### Lab sample results

See site 977084 for lab results

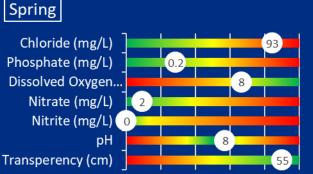
**Site Details** 

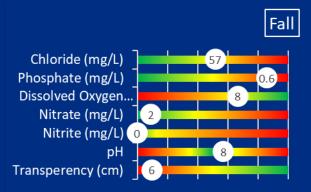
GLU 977012

Watershed Gray's Lake

Field Monitors

Spring and Fall – Rich and Jody Anderson





#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 - 12 mg/L





JJR 977029

Watershed Jordan Creek

Field Monitors

Spring and Fall – Missy Smith, PCC

**POLK COUNTY** 

WATER QUALITY MONITORING PROGRAM



Polk County Conservation Water Quality Monitoring Program

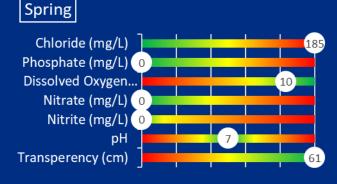


Jordan Creek off recreation trail. Downstream from culvert at EP True Pkwy.



#### Lab sample results

No samples obtained



Fall Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen... Nitrate (mg/L) PH Transperency (cm)

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxyge	n 0–12 mg/L



## FMC 977043

<u> Fourmile Creek at Sargent Park</u>



#### Site Details

FFM 977043

Watershed Fourmile Creek

Field Monitors

Spring – Ken Trytek, DMPR Fall – No Report

#### Lab sample results

No samples obtained

Spring Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen... Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)

Fall – No report due to lightening

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 - 12 mg/L



<u>Sp</u>

Polk County Conservation Water Quality Monitoring Program

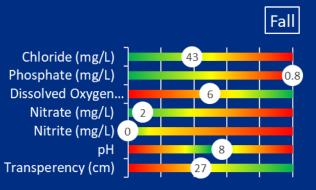


#### Lab sample results

oring		Fall
2420	Total Coliforms MPN/100ml	24,890
236	E. coli MPN/100ml	3830
5.7	Chloride mg/L	52.8
.22	Nitrate as N mg/L	2.23
.04	Nitrite as N mg/L	<0.1
.15	Phosphorus-O as P mg/L	0.2

#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen... Nitrate (mg/L) Sitrite (mg/L) PH Transperency (cm)



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0-12 mg/L

Return to Site Map



### Site Details BC1

BBV 977059

Watershed Beaver Creek

Field Monitors Spring - Team #9

Fall – Team #10



Spring

>2420

121

124.6

0.15 0.01

< 0.1

Polk County Conservation Water Quality Monitoring Program





#### Site Details

BC2 BBV 977060

Watershed

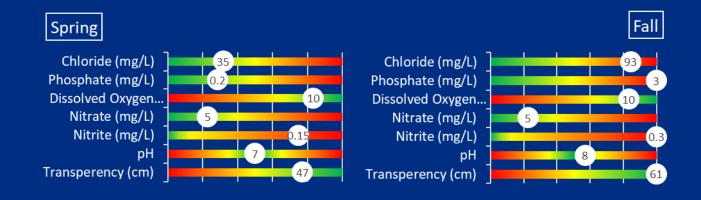
**Beaver** Creek

Field Monitors

Spring - Doug & Sandy Johanson Fall - Team #7

#### Lab sample results

	Fall
Total Coliforms MPN/100ml	27,550
E. coli MPN/100ml	1890
Chloride mg/L	114.3
Nitrate as N mg/L	3.02
Nitrite as N mg/L	0.65
Phosphorus-O as P mg/L	0.73



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
	0 10 //

Return to Site Map

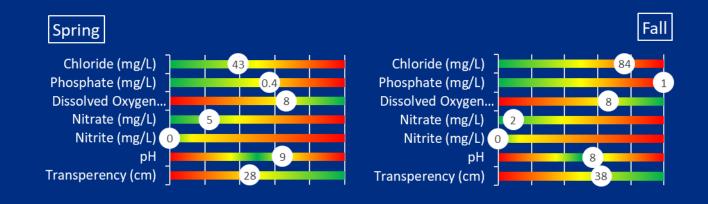
)xvaen

mg/L



Polk County Conservation Water Quality Monitoring Program

Site Details	Lab sample results	
BC3	<u>Spring</u> >2420         Total Coliforms  MPN/100ml	<u>Fall</u> 7800
BBV 977061	179 E. coli MPN/100ml	520
Beaver Creek	38.6 Chloride mg/L 9 Nitrate as N mg/L	99.4 2.17
	0.04 Nitrite as N mg/L	0.18
Spring - Team #7	< 0.1 Phosphorus-O as P mg/L	0.19
Fall - Team #8		



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
	0 10 //

Return to Site Map

Jxygen

mg/L



Polk County Conservation Water Quality Monitoring Program



#### Lab sample results

No samples obtained

Site Details

Creekside 1 BBV 977062

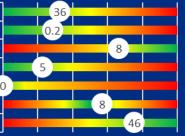
Watershed Beaver Creek

Field Monitors

Spring - Team #4 Fall – No Report

#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen... Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



Fall – No report

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

mg/L

Return to Site Map

Jxygen



\$

Polk County Conservation Water Quality Monitoring Program

#### Lab sample results

No samples obtained

Beaver Creek

**Site Details** 

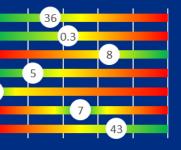
Creekside 2 BBV 977063

Watershed

Spring - Team #4 Fall – No Report

#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen... Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



Fall – No report

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 – 12 mg/L



Polk County Conservation Water Quality Monitoring Program

#### Lab sample results

No samples obtained



Beaver Cr Elem BBV 977064

Watershed

Beaver Creek

Field Monitors

Spring - Team #4 Fall – No Report



Fall – No report

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Owner	- 0 12 mg/l



Polk County Conservation Water Quality Monitoring Program



#### Lab sample results

No samples obtained

Spring– No report Fall – No report

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L	
Phosphate	0 – 10 mg/L	
Chloride	25 – 600+ mg/L	
Dissolved Oxygen 0 – 12 mg/L		

Return to Site Map



#### Site Details Birdland

BBV 977065

Watershed Des Moines River

Field Monitors Spring – no data Fall – no data



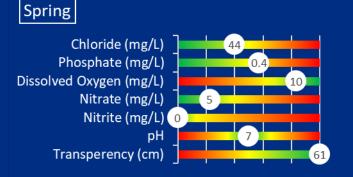
### CCM 977066

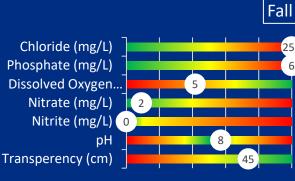
Polk County Conservation Water Quality Monitoring Program



🤝 Bridge crossing in Thomas Mitchell Park

Site Details		Lab sample results	
CC1 CCM 977066	<u>Spring</u> >2420 249	Total Coliforms MPN/100ml E. coli MPN/100ml	<u>Fall</u> 13740 850
Watershed Camp Creek Field Monitors Zach Deutmeyer, Al Pasker, PCC	42.7 10.42 0.06 0.12	Chloride mg/L Nitrate as N mg/L Nitrite as N mg/L Phosphorus-O as P mg/L	280.1 6.67 <0.1 2.06





#### **Parameter Ranges**

Nitrate	0 – 50 mg/L	
Phosphate	0 – 10 mg/L	
Chloride	25 – 600+ mg/L	
Dissolved Oxygen 0 – 12 mg/L		





CCM 977067

Camp Creek

## CCM 977067

Polk County Conservation Water Quality Monitoring Program



#### Lab sample results

No samples obtained

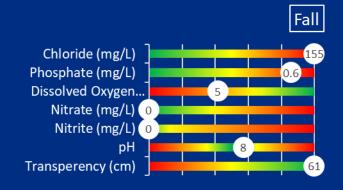
Field Monitors

Watershed

CC2

Spring – no report Fall - Zach Deutmeyer, Al Pasker, PCC

#### Spring– No report



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L



### DSM 977071



60

Polk County Conservation Water Quality Monitoring Program



#### Lab sample results

No samples obtained

#### Site Details FC1 DSM 977071

Watershed Des Moines River

Field Monitors

Spring

Chloride (mg/L)

Nitrate (mg/L) 1

Nitrite (mg/L) 0

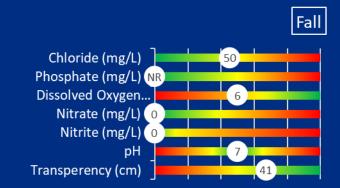
pН

Phosphate (mg/L)

Transperency (cm)

Dissolved Oxygen (mg/L)

Spring – Team #8 Fall – Team #8



### Parameter Ranges

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxygo	p = 0 + 12 mg/l





### FFM 977072

Polk County Conservation Water Quality Monitoring Program

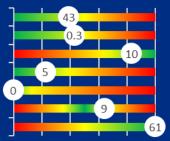




#### **Site Details** Lab sample results FMC1 Spring Fall 141,360 >2420 Total Coliforms MPN/100ml FFM 977072 1203 E. coli MPN/100ml 2160 Watershed 47.7 86.9 Chloride mg/L Fourmile Creek 11.61 Nitrate as N mg/L 0.05 0.06 Nitrite as N mg/L < 0.1 Field Monitors 0.16 Phosphorus-O as P mg/L 1.49 Spring - Heidi Anderson, PCC Fall – No Report

#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) PH Transperency (cm)



Fall – Unable to complete report due to lightening

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 - 12 mg/L





Fourmile Creek

Fall – John Harri

FMC10

Watershed

Field Monitors Spring – Penny Thomsen & John Harri

FFM 977073

### FFM 977073

Polk County Conservation Water Quality Monitoring Program





#### Lab sample results

<u>Spring</u> >2420 261 52.4 8.1 0.05	Total Coliforms MPN/100ml E. coli MPN/100ml Chloride mg/L Nitrate as N mg/L Nitrite as N mg/L	<u>Fall</u> 111990 8620 67.7 0.08 <0.1
< 0.1	Phosphorus-O as P mg/L	0.19

Spring		Fall
Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) PH Transperency (cm)	Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen Nitrate (mg/L) Nitrite (mg/L) PH Transperency (cm)	

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxyge	n 0–12 mg/L





## FFM 977074

Polk County Conservation Water Quality Monitoring Program





#### Lab sample results

No samples obtained

Fourmile Creek

FFM 977074

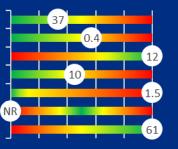
FMC2

Watershed

Field Monitors Spring – Team #11 Fall – No Report

#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH NR Transperency (cm)



Fall – No report

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxygen 0 – 12 mg/L	





Fourmile Creek

Spring & Fall – City of Ankeny

FFM 977075

FMC3

Watershed

Field Monitors

### FFM 977075

Polk County Conservation Water Quality Monitoring Program

Polk County Snapshot (Site FMC3) NE 54th Street (north of bridge)

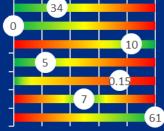


#### Lab sample results

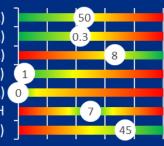
<u>Spring</u> >2420 1414 35.3 10.96 0.11	Total Coliforms MPN/100ml E. coli MPN/100ml Chloride mg/L Nitrate as N mg/L Nitrite as N mg/L	Fall 43,520 4,870 55.9 2.16 <0.1
< 0.1	Phosphorus-O as P mg/L	<0.1

#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) PH Transperency (cm)



Fall

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0-12 mg/L



FFM 977076

Polk County Conservation Water Quality Monitoring Program



### Lab sample results

No samples obtained



**Site Details** 

Watershed Fourmile Creek

Field Monitors

Spring – Team #5 Fall – Team #4

Spring

Chloride (mg/L)

Phosphate (mg/L) 0

Nitrate (mg/L)

Transperency (cm)

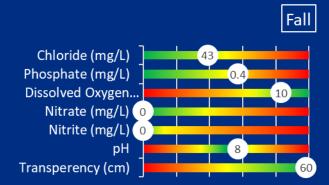
Nitrite (mg/L) 0

pН

Dissolved Oxygen (mg/L)

37

61



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 – 12 mg/L



## FFM 977077

Polk County Conservation Water Quality Monitoring Program

Polk County Snapshot (Site FMC5)



#### **Site Details**

FMC5 FFM 977077

Watershed Fourmile Creek

Field Monitors

Spring – Team #5 Fall – Team #4

#### Lab sample results

<u>Spring</u>		<u>Fall</u>
>2420	Total Coliforms MPN/100ml	8600
435	E. coli MPN/100ml	410
42.3	Chloride mg/L	54.3
10.44	Nitrate as N mg/L	<0.05
0.08	Nitrite as N mg/L	<0.1
< 0.1	Phosphorus-O as P mg/L	<0.1



#### Parameter Ranges

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 - 12 mg/L





FFM 977078

### FFM 977078

Polk County Conservation Water Quality Monitoring Program





#### Lab sample results

No samples obtained

Field Monitors

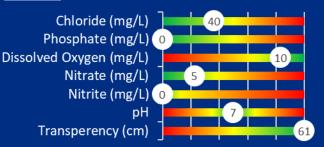
FMC6

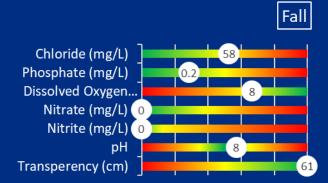
Watershed

Spring & Fall – City of Ankeny

Spring

Fourmile Creek





#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 – 12 mg/L





Spring

### FFM 977079

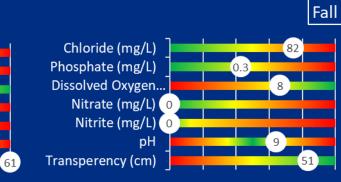
Polk County Conservation Water Quality Monitoring Program





#### Lab sample results

FMC7 FFM 977079	<u>Spring</u> 1986	Total Coliforms MPN/100ml	<u>Fall</u> 8360
Watershed	225	E. coli MPN/100ml	100
Fourmile Creek	45.7	Chloride mg/L	74.9
	10.19	Nitrate as N mg/L	<0.05
Field Monitors	0.08	Nitrite as N mg/L	<0.1
Spring & Fall –	< 0.1	Phosphorus-O as P mg/L	0.37
Michael French, PCC			



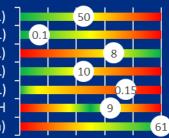
#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxygen 0 – 12 mg/L	

Return to Site Map



#### Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



FFM 977080



Polk County Conservation Water Quality Monitoring Program



Fall

#### **Site Details**

FMC8 FFM 977080

Watershed Fourmile Creek

Field Monitors

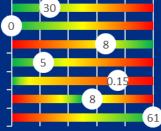
Spring – Team #3 Fall - Team #3

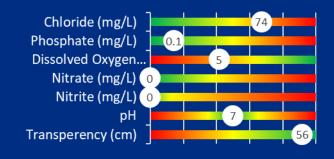
#### Lab sample results

No samples obtained

#### Spring

Chloride (mg/L) Phosphate (mg/L) 0 Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pН Transperency (cm)





#### Parameter Ranges

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxyge	n 0–12 mg/L





#### **Site Details** FMC9 FFM 977081

Watershed Fourmile Creek

Field Monitors

Spring & Fall -Ken Trytek, DMPR



🤿 Polk County Snapshot (Site FMC9)



Polk County Conservation

#### Lab sample results

Program

No samples obtained

Spring

Chloride (mg/L) 43 Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) 5 Nitrite (mg/L) 0 pН Transperency (cm)

Fall -No report due to lightening

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L





### FFR 977082

Polk County Conservation Water Quality Monitoring Program





#### Lab sample results

No samples obtained

Frink Creek

FFR 977082

FRC1

Watershed

Spring & Fall - City of Des Moines Clean Water Program

#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) PH Transperency (cm)



Fall – No report due to lightening

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Disselved Owger	- 0 10 mg/l

Dissolved Oxygen 0 – 12 mg/l



### FFR 977083

Polk County Conservation Water Quality Monitoring Program

Polk County Snapshot (Site FRC2)



#### **Site Details**

FRC2 FFR 977083

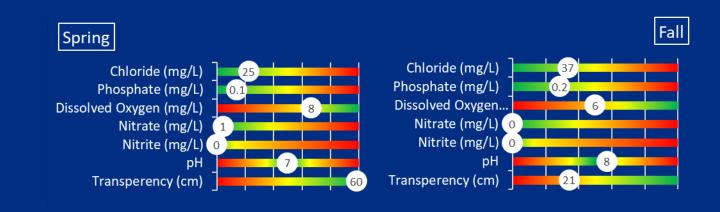
Watershed Frink Creek

Field Monitors

Spring – Team #10 Fall - Team #10

#### Lab sample results

	<u>Fall</u>
Total Coliforms MPN/100ml	43,520
E. coli MPN/100ml	1730
Chloride mg/L	38.1
Nitrate as N mg/L	0.08
Nitrite as N mg/L	<0.1
Phosphorus-O as P mg/L	<0.1
	E. coli MPN/100ml Chloride mg/L Nitrate as N mg/L Nitrite as N mg/L



#### Parameter Ranges

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
	- 0 10





Grays Trib. GLU 977084

Gray's Lake

Spring & Fall – Rich and Jody Anderson

Watershed

Field Monitors

## GLU 977084

Polk County Conservation Water Quality Monitoring Program

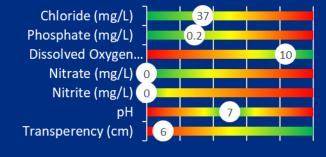


#### Lab sample results

<u>Spring</u>		<u>Fall</u>
>2420	Total Coliforms MPN/100ml	>241,960
1986	E. coli MPN/100ml	198,630
103.9	Chloride mg/L	45.9
1.13	Nitrate as N mg/L	0.95
ND	Nitrite as N mg/L	<0.1
< 0.1	Phosphorus-O as P mg/L	0.18

#### Spring Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L)

Nitrate (mg/L) Nitrite (mg/L) 0 pН Transperency (cm)



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
	$n_{0} = 12 m_{0}/l_{0}$

Return to Site Map



#### Fall



### JJR 977085

Polk County Conservation Water Quality Monitoring Program



Polk County Snapshot (Site JC1) at Prairie View Drive, north of EP True Pkwy

#### Lab sample results

No samples obtained

Field Monitors

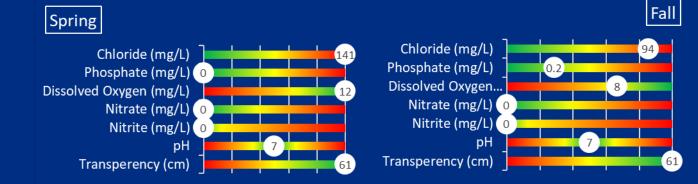
Watershed

JJR 977085

JC1

Spring and Fall – Missy Smith, PCC

Jordan Creek



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxyge	n 0–12 mg/L





### JJR 977086

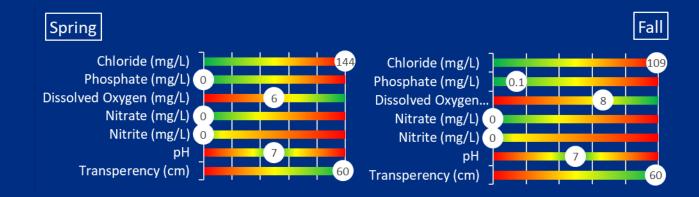
Polk County Conservation Water Quality Monitoring Program



Fiogram



Site Details	Lab sample results	
JC2 JJR 977086 Watershed Jordan Creek Field Monitors Spring – Team #10 Fall – Team #10	Spring>2420Total Coliforms MPN/100ml285E. coli MPN/100ml165.7Chloride mg/L0.07Nitrate as N mg/L0.01Nitrite as N mg/L< 0.1Phosphorus-O as P mg/L	<u>Fall</u> 9,080 970 111.8 <0.05 0.21 <0.1



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxyge	en 0–12 mg/L





Laurel Hill FLH 977087

### FLH 977087

Polk County Conservation Water Quality Monitoring Program





#### Lab sample results

No samples obtained

Field Monitors

Watershed

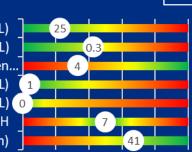
Spring & Fall – Rachel Haindfield, DMPR

Spring

Fourmile Creek

#### Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH 0 Transperency (cm) NR

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen... Nitrate (mg/L) Nitrite (mg/L) PH Transperency (cm)



Fall

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxvae	n 0 – 12 ma/l



### 977088

Polk County Conservation Water Quality Monitoring Program





#### Lab sample results

No samples obtained

#### **Site Details**

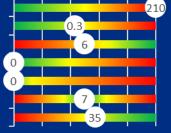
Leetown Creekway 1 977088 Watershea Fourmile Creek

Field Monitors

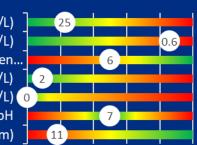
Spring – Team #8 Fall – Team #8

### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) O Nitrite (mg/L) PH Transperency (cm)



Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen... Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



Fall

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxvae	n 0 – 12 ma/L





Leetown Creekway 2 977089 Fourmile Creek

Field Monitors

Spring – Team #8 Fall – Team #8

### 977089

Polk County Conservation Water Quality Monitoring Program

Polk County Snapshot (Site Leetown Creekway 2)



#### Lab sample results

<u>Spring</u>		<u>Fall</u>
>2420	Total Coliforms MPN/100ml	>241960
548	E. coli MPN/100ml	198630
153.4	Chloride mg/L	21.0
0.05	Nitrate as N mg/L	0.9
0.01	Nitrite as N mg/L	<0.1
< 0.1	Phosphorus-O as P mg/L	0.24



#### Parameter Ranges

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxyge	n 0–12 mg/L





### FLF 977090

 $\approx$ 

Polk County Conservation Water Quality Monitoring Program



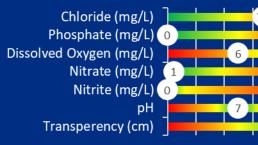
Polk County Snapshot (Site LFMC1)



Fall

#### **Site Details** Lab sample results LFMC1 Spring Fall >241,960 2420 Total Coliforms MPN/100ml FLF 977090 152 E. coli MPN/100ml 6,240 Watershed 86.7 6.0 Chloride mg/L Fourmile Creek 0.53 Nitrate as N mg/L 0.96 0.03 Nitrite as N mg/L < 0.1 Field Monitors < 0.1 < 0.1 Phosphorus-O as P mg/L Spring – Team #3 Fall – Team #3





Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen... Nitrate (mg/L) Nitrite (mg/L) pН Transperency (cm)

61



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
	n = 12 mg/l



## FLF 977091

Polk County Conservation Water Quality Monitoring Program

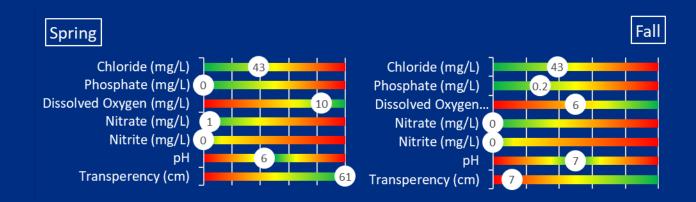


Polk County Snapshot (Site LFMC2)



#### Lab sample results

		<u>Fall</u>
>2,420	Total Coliforms MPN/100ml	>241,960
1,733	E. coli MPN/100ml	129,970
67.4	Chloride mg/L	47.0
2.22	Nitrate as N mg/L	0.51
0.03	Nitrite as N mg/L	<0.1
<0.1	Phosphorus-O as P mg/L	0.16



#### Parameter Ranges

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
	$p_{0} = 12 mg/l$

Return to Site Map



#### **Site Details**

LFMC2 FLF 977091

Watershed Fourmile Creek

Field Monitors

Spring – Team #3

Fall – Team #3



## FLF 977092

Polk County Conservation Water Quality Monitoring Program



Polk County Snapshot (Site MC1)



#### **Site Details** MC1

MMD 977092

Watershed

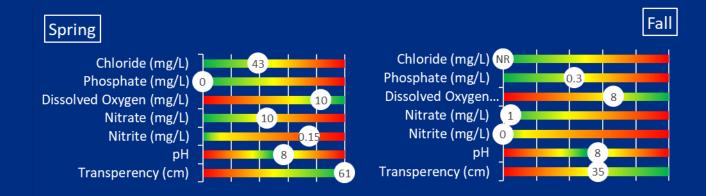
Mud Creek

Field Monitors

Spring – Team #5 Fall – Team #4

#### Lab sample results

<u>Spring</u>		<u>Fall</u>
>2420	Total Coliforms MPN/100ml	81,640
222	E. coli MPN/100ml	3230
43.6	Chloride mg/L	72.3
13.15	Nitrate as N mg/L	0.51
0.1	Nitrite as N mg/L	<0.1
< 0.1	Phosphorus-O as P mg/L	<0.1



#### Parameter Ranges

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
	$p_{0} = 12 mg/l$





## MMD 977093





Polk County Conservation

🤜 Polk County Snapshot (Site MC2)

#### Lab sample results

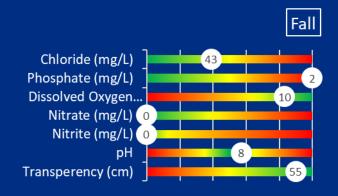
No samples obtained

MMD 977093 Watershed Mud Creek

MC2

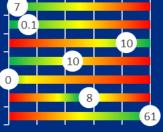
**Site Details** 

Field Monitors Spring – Team #5 Fall – Team #4



#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxyge	n 0 – 12 ma/l





## MMD 977094

Polk County Conservation Water Quality Monitoring Program

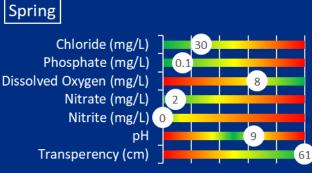
🤜 Polk County Snapshot (Site MC3)

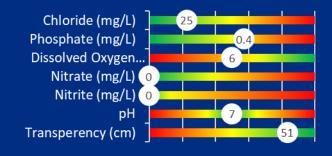


Fall

#### Lab sample results

MC3 MMD 977094	<u>Spring</u> >2,420	Total Coliforms MPN/100ml	<u>Fall</u> 24,810
Watershed	308 35.6	E. coli MPN/100ml Chloride mg/L	2,620 17.4
Mud Creek	7.05	Nitrate as N mg/L	0.06
Field Monitors	0.06	Nitrite as N mg/L	<0.1
Spring – Team #2	< 0.1	Phosphorus-O as P mg/L	0.26
Fall – Team #2			





#### **Parameter Ranges**

Nitrate	0 – 50 mg/L	
Phosphate	0 – 10 mg/L	
Chloride	25 – 600+ mg/L	
Dissolved Oxygen 0 – 12 mg/L		







Polk County Conservation Water Quality Monitoring Program

#### Lab sample results

No samples obtained

#### Site Details

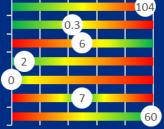
NWC Trib 1 WNW 977095 Watershed

Walnut Creek

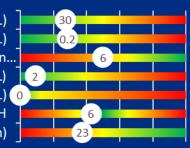
Field Monitors Spring – Team #7 Fall – Team #7

#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen... Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



Fall

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxygor	-0.12 mg/l

Dissolved Oxygen 0 – 12 mg







Polk County Conservation Water Quality Monitoring Program

#### Lab sample results

No samples obtained

#### Site Details

NWC Trib 2 WNW 977096

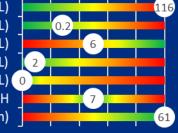
Watershed Walnut Creek

Field Monitors

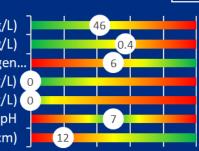
Spring – Team #12 Fall – No Report

#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen... Nitrate (mg/L) Nitrite (mg/L) PH Transperency (cm)



Fall

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Owygor	- 0 10 mg/l

Dissolved Oxygen 0 – 12 mg/



WNW 977097 Polk County Snapshot (Site NWC1)

Polk County Conservation Water Quality Monitoring Program

#### **Site Details**

NWC1 WNW 977097 Watershed

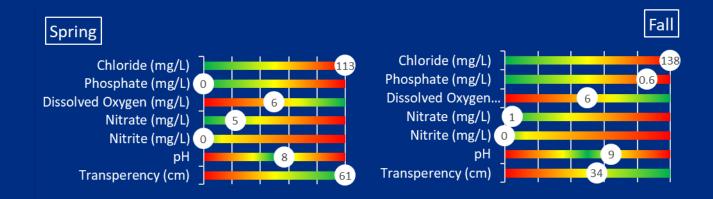
Walnut Creek

Field Monitors

Spring – Team #13 Fall – Team #9

#### Lab sample results

	<u>Fall</u>
Total Coliforms MPN/100ml	98,040
E. coli MPN/100ml	4870
Chloride mg/L	158.4
Nitrate as N mg/L	0.4
Nitrite as N mg/L	0.31
Phosphorus-O as P mg/L	0.1
	E. coli MPN/100ml Chloride mg/L Nitrate as N mg/L Nitrite as N mg/L



#### Parameter Ranges

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 – 12 mg/L



WNW 977098



Polk County Conservation Water Quality Monitoring Program

#### Lab sample results

No samples obtained

WNW 977098 Watershed

**Site Details** 

NWC2

Walnut Creek

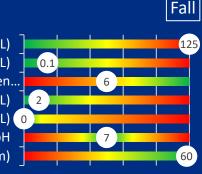
Field Monitors Spring – Team #13

Fall – Team #11

Spring

#### 

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen... Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L	
Phosphate	0 – 10 mg/L	
Chloride	25 – 600+ mg/L	
Dissolved Oxygen 0 – 12 mg/L		





WNW 977099

Walnut Creek

Foresman-Kirpes, PCC

NWC3

Watershed

Field Monitors Spring – Lori

Fall – Team #5

## WNW 977099

Polk County Conservation Water Quality Monitoring Program





#### Lab sample results

	<u>Fall</u>
Total Coliforms MPN/100ml	173,290
E. coli MPN/100ml	3050
Chloride mg/L	57.3
Nitrate as N mg/L	0.8
Nitrite as N mg/L	<0.1
Phosphorus-O as P mg/L	0.11
	E. coli MPN/100ml Chloride mg/L Nitrate as N mg/L Nitrite as N mg/L

Spring		Fall
Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)	148Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen Nitrate (mg/L)46 0.400600600761Transperency (cm)9	

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 - 12 mg/L





Polk County Conservation Water Quality Monitoring Program



### Site Details

NWC4 WNW 977100

Watershed Walnut Creek

Field Monitors

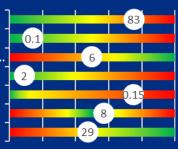
Spring – Team #13 Fall – Team #11

#### Lab sample results

No samples obtained

#### Spring Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen... Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



Fall

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxyge	n 0–12 mg/L





WNW 977101

## WNW 977101

Polk County Conservation Water Quality Monitoring Program





#### Lab sample results

No samples obtained

Field Monitors

NWC5

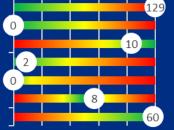
Watershed

Spring – Team #6 Fall – Team #11

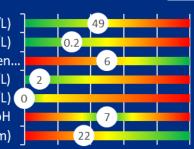
Walnut Creek

#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen... Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



Fall

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 – 12 mg/L



WNW 977102

Spring 1986

238

61.3

10.4 0.06

< 0.1

Polk County Conservation Water Quality Monitoring Program





#### **Site Details**

NWC6 WNW 977102

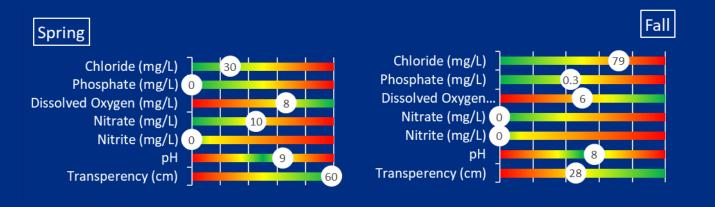
Watershed Walnut Creek

Field Monitors

Spring – Team #6 Fall – Team #6

#### Lab sample results

30
20
L
1
5
L



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxygor	12  mg/l





RRC 977104

Rock Creek

## RRC 977104

Polk County Conservation Water Quality Monitoring Program



Fall

61

#### Polk County Snapshot (Site RC1) NW 18th Street (upstream of box culvert)

#### Lab sample results

Total Coliforms MPN/100ml E. coli MPN/100ml Chloride mg/L Nitrate as N mg/L Nitrite as N mg/L Phosphorus-O as P mg/L

#### Field Monitors

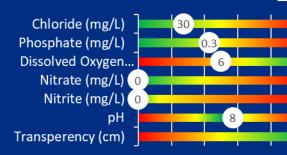
Watershed

RC1

Spring & Fall – City of Ankeny

Spring

#### Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) PH Transperency (cm)



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 – 12 mg/L





## RRC 977105

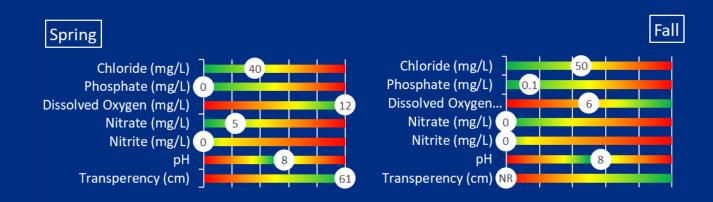
Polk County Conservation Water Quality Monitoring Program



Polk County Snapshot (Site RC2) NW Polk City Drive (upstream of box culvert)

#### Lab sample results

RC2 RRC 977105	<u>Spring</u> >2420	Total Coliforms MPN/100ml	<u>Fall</u> 5290
Watershed	172 41.4	E. coli MPN/100ml Chloride mg/L	100 54.4
Rock Creek	10.05	Nitrate as N mg/L	<0.05
Field Monitors	0.04	Nitrite as N mg/L	<0.1
Spring & Fall –	< 0.1	Phosphorus-O as P mg/L	<0.1
City of Ankeny			



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 - 12 mg/L





Saylor Creek

Spring & Fall – City of Ankeny

Saylor Ck SSY 977106

Watershed

Field Monitors

## SSY 977106

Polk County Conservation Water Quality Monitoring Program

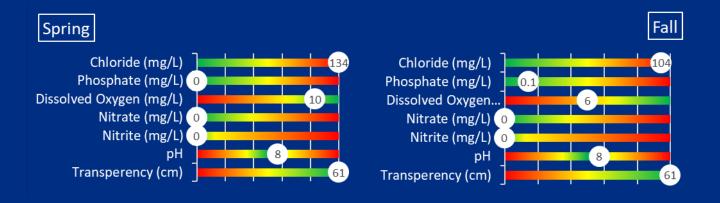


Polk County Snapshot (Site Saylor Creek) NW 72nd Place (north of bridge)



#### Lab sample results

<u>Spring</u> >2420 309 129.0 0.27 0.01	Total Coliforms MPN/100ml E. coli MPN/100ml Chloride mg/L Nitrate as N mg/L Nitrite as N mg/L	Fall 6310 410 115.2 <0.05 0.21
< 0.1	Phosphorus-O as P mg/L	<0.1



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 – 12 mg/L





## SSP 977107

Polk County Conservation Water Quality Monitoring Program



Polk County Snapshot (Site SC1)



#### Lab sample results

No samples obtained

Field Monitors Spring – Team #2

Spring Creek

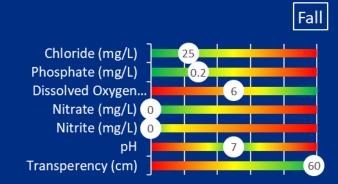
**Site Details** 

SSP 977107

SC1

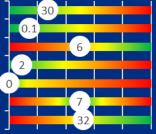
Watershed

Fall – Team #2



#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 - 12 mg/L





PCC

## SSP 977108

Polk County Conservation Water Quality Monitoring Program

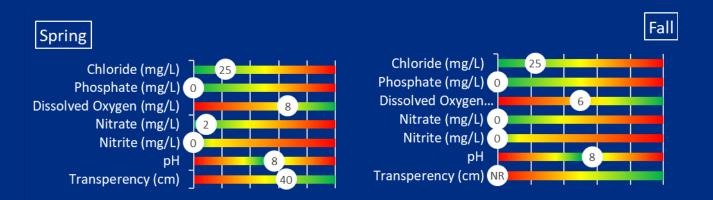


Polk County Snapshot (Site SC2) Vandalia Ave.



#### Lab sample results

SC2 SSP 977108	<u>Spring</u> 2420	Total Coliforms MPN/100ml	<u>Fall</u> 54,750
	517	E. coli MPN/100ml	2010
Watershed	28.9	Chloride mg/L	30.2
Spring Creek	3.19	Nitrate as N mg/L	<0.05
Field Monitors	0.08	Nitrite as N mg/L	<0.1
Spring & Fall – Charlie Finch,	< 0.1	Phosphorus-O as P mg/L	<0.1



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
	0 10 //

Return to Site Map

)xvaen

mg/L





## WWG 977109

Polk County Conservation Water Quality Monitoring Program



Polk County Snapshot (Site Waveland) bike trail and Pleasant St. (between Cummins Pkwy and 56th St.)

#### Lab sample results

No samples obtained

Site Details

Waveland

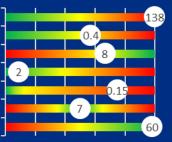
Watershed Walnut Creek

Field Monitors

Spring – Shane Laycock, DMPR Fall – No Report

#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



Fall – No report

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L





Polk County Conservation Water Quality Monitoring Program



#### Lab sample results

No samples obtained

#### Site Details

WC1 WWL 977110

Watershed Walnut Creek

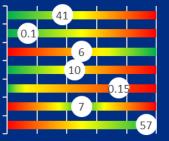
Field Monitors

Spring & Fall –

City of Clive Public Works Team #1

#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) PH Transperency (cm)



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxyge	n 0–12 mg/L



WWL 977111

<u>Spring</u> 2420

205

50.8

11.64 0.07

< 0.1

Polk County Conservation Water Quality Monitoring Program

Polk County Snapshot (Site WC2)



#### **Site Details**

WC2 WWL 977111

Watershed Walnut Creek

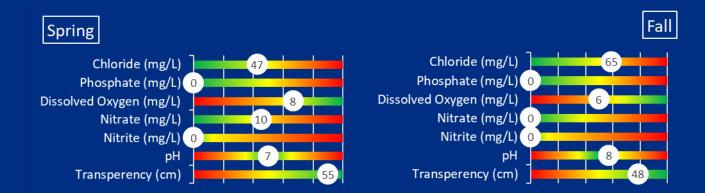
Field Monitors

Spring & Fall –

City of Clive Public Works Team #1

#### Lab sample results

	<u>Fall</u>
Total Coliforms MPN/100ml	16,640
E. coli MPN/100ml	520
Chloride mg/L	78.9
Nitrate as N mg/L	<0.05
Nitrite as N mg/L	0.12
Phosphorus-O as P mg/L	<0.1



#### Parameter Ranges

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 – 12 mg/L





WWL 977112



Polk County Conservation Water Quality Monitoring Program

#### Lab sample results

No samples obtained

WWL 977112 Watershed

Walnut Creek

**Site Details** 

Field Monitors

WC3

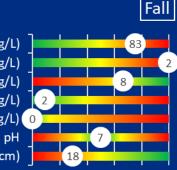
Spring – Team #13 Fall – Team #11

#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)

	49	
	6	
5		
	8	
		57

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
	0 10 //

Dxygen 0

12 mg/L



WWL 977113

>242

Polk County Conservation Water Quality Monitoring Program

Polk County Snapshot (Site WC4)



#### **Site Details**

WC4 WWL 977113

Watershed Walnut Creek

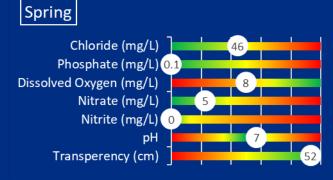
Field Monitors

Spring – Team #6

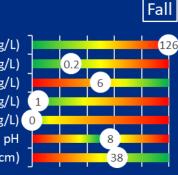
Fall – Team #9

#### Lab sample results

<u>Spring</u>		<u>Fall</u>
>2420	Total Coliforms MPN/100ml	51,720
276	E. coli MPN/100ml	5940
59.5	Chloride mg/L	86.4
10.67	Nitrate as N mg/L	0.09
0.06	Nitrite as N mg/L	<0.1
< 0.1	Phosphorus-O as P mg/L	<0.1



Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) 1 Nitrite (mg/L) pН Transperency (cm)



#### Parameter Ranges

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
	0 10 //

mg/L

Return to Site Map

vxvaen





Polk County Conservation Water Quality Monitoring Program



#### Lab sample results

No samples obtained

#### Site Details

WC5 WWL 977114

Watershed Walnut Creek

Field Monitors

Spring – Team #6 Fall – Team #6

## Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Phosphate (mg/L) Phosphat Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) PH Transperency (cm)



Fall

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 - 12 mg/L



## WWL 977115

Polk County Conservation Water Quality Monitoring Program

Polk County Snapshot (Site WC6)



Fall

91

#### **Site Details**

WC6 WWL 977115

Watershed Walnut Creek

Field Monitors

Spring – Team #6 Fall – Team #6

#### Lab sample results

	<u>Fall</u>
Total Coliforms MPN/100ml	241,960
E. coli MPN/100ml	20,140
Chloride mg/L	102.7
Nitrate as N mg/L	0.16
Nitrite as N mg/L	0.19
Phosphorus-O as P mg/L	0.17
	E. coli MPN/100ml Chloride mg/L Nitrate as N mg/L Nitrite as N mg/L

Spring		
Chloride (mg/L)	46	Chloride (mg/L)
Phosphate (mg/L)		Phosphate (mg/L)
Dissolved Oxygen (mg/L)	6	Dissolved Oxygen (mg/L)
Nitrate (mg/L)	10	Nitrate (mg/L) 0
Nitrite (mg/L) 0		Nitrite (mg/L) 0
pH	8	pH PH
Transperency (cm)		60 Transperency (cm)

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxyge	n 0–12 mg/L



YYD 977116

Polk County Conservation Water Quality Monitoring Program





#### Site Details

YC1 YYD 977116

Watershed Yeader Creek

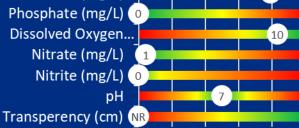
Field Monitors

Spring – Team #10 Fall – Team #10

#### Lab sample results

No samples obtained

#### Chloride (mg/L) Phosphate (mg/L)



Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



Fall

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 – 12 mg/L





## YYD 977117

Polk County Conservation Water Quality Monitoring Program



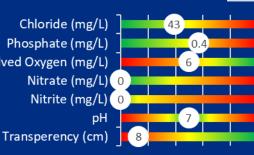
Polk County Snapshot (Site YC2)

Indianola Ave at Ewing Park; monitor from pedestrian bridge on trail

#### Lab sample results

	<u>Fall</u>
Total Coliforms MPN/100ml	>241,960
E. coli MPN/100ml	81,640
Chloride mg/L	39.6
Nitrate as N mg/L	0.45
Nitrite as N mg/L	<0.1
Phosphorus-O as P mg/L	0.2
	E. coli MPN/100ml Chloride mg/L Nitrate as N mg/L Nitrite as N mg/L

# Spring Chloride (mg/L) Phosphate (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) PH PH Transperency (cm) Chloride (mg/L) Chloride (mg/L) Chloride (mg/L) Phosphate (mg/L) Chloride (mg/L) Phosphate (mg/L) Chloride (mg/L) Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) PH Transperency (cm) NR



Fall

#### Parameter Ranges

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxyge	n 0–12 mg/L

Return to Site Map



#### Site Details

YC2 YYD 977117

Watershed Yeader Creek

Field Monitors

Spring & Fall – Tad Thomas, DMPR



BBV 977120

Watershed

BBV 977120



Polk County Conservation Water Quality Monitoring Program

#### Lab sample results

No samples obtained

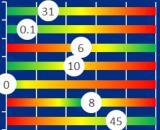
**Beaver Creek** Field Monitors Spring – Lindsey Page, PCC

977120 Beaver Cr

Fall – No Report

#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) 0 pН Transperency (cm)



Fall -No report

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxyge	n 0–12 mg/L





Polk County Conservation Water Quality Monitoring Program



Site Details

BLB 977121 977121 Little Begver Cr

Watershed

Beaver Creek

Field Monitors

Spring – Dave Croll, City of Johnston

Fall – No Report

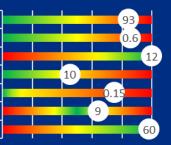
977121 Little Beaver Creek NW 100th and Little Beaver about ½ mile East South East where we can access the creek through Crosshaven Park

#### Lab sample results

No samples obtained

#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



Fall – No report

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxygo	$p_{0} = 12 mg/l$





WWL 977147 977147 Walnut Creek

Watershed Walnut Creek

Field Monitors

Spring - Steve Falck

Fall – Steve Falck with Valley High School students

**POLK COUNTY** 

WATER QUALITY MONITORING PROGRAM

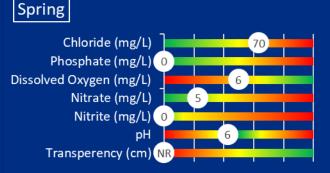
# WWL 977147

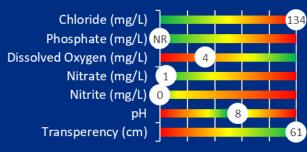
Colby Park

Polk County Conservation Water Quality Monitoring Program

#### Lab sample results

No samples obtained





#### **Parameter Ranges**

Fall

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
	0 10 //

12 mg/l

Return to Site Map

Jxygen



JJR 977150 977150 Jordan Creek

Watershed Jordan Creek

Field Monitors

Spring & Fall -Melanie Perry, WDM P&R

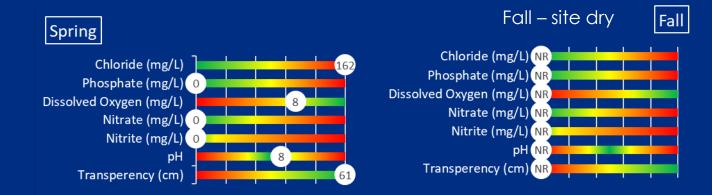
## JJR 977150

Polk County Conservation Water Quality Monitoring Program

977150 Jordan Creek north of Raccoon River Park Softball Complex at Jordan Creek Trail and gravel road

#### Lab sample results

No samples obtained



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
	n = 12 mg/l

Dissolved Oxygen 0 – 12 mg/L





## CCM 977152 Water Que Program

66

61

Polk County Conservation Water Quality Monitoring Program



#### Lab sample results

No samples obtained

#### Site Details

CCM 977152

Watershed Camp Creek

Field Monitors

Zach Deutmeyer, Al Pasker, PCC

Spring

Chloride (mg/L)

Nitrate (mg/L)

Nitrite (mg/L) 0

pH

Phosphate (mg/L)

Transperency (cm)

Dissolved Oxygen (mg/L)

#### Fall Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) PH Transperency (cm)

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0-12 mg/L





## CCM 977156

Polk County Conservation Water Quality Monitoring Program

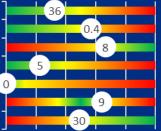
leaded and the second state and the second s



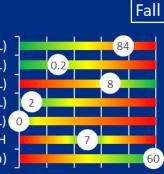
Site Details	Lab sample results	
CC3 CCM 977156 Watershed Camp Creek Field Monitors Spring – Team #2 Fall - Team #2	Spring>2420Total Coliforms MPN/100ml770E. coli MPN/100ml41.6Chloride mg/L7.8Nitrate as N mg/L0.06Nitrite as N mg/L< 0.1Phosphorus-O as P mg/L	Fall 32,550 1480 80.3 0.06 <0.1 <0.1

Spring
Spring
- Pring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxygen 0 – 12 mg/L	



<u>Spring</u> 1986

727

28.9

14.82 0.07

< 0.1

Polk County Conservation Water Quality Monitoring Program





#### Site Details

LBC1 BLB 977157

Watershed

Beaver Creek

Field Monitors

Spring – Team #9

Fall - Team #9

#### Lab sample results

	<u>Fall</u>
Total Coliforms MPN/100ml	198,630
E. coli MPN/100ml	9,880
Chloride mg/L	31.7
Nitrate as N mg/L	1.58
Nitrite as N mg/L	0.03
Phosphorus-O as P mg/L	<0.1

#### Fall Spring Chloride (mg/L) Chloride (mg/L) Phosphate (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrate (mg/L) Nitrite (mg/L) 0 Nitrite (mg/L) 0 pН pН Transperency (cm) Transperency (cm) 12

#### Parameter Ranges

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxygor	- 0 12 mg/l

issolved Oxygen 0 - 12 mg





Polk County Conservation Water Quality Monitoring Program



#### **Site Details**

LBC2 BLB 977158

Watershed

Beaver Creek

Field Monitors

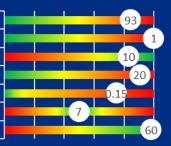
Spring – Team #9 Fall - No Report

#### Lab sample results

No samples obtained

Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



Fall – No report

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxvae	n 0 – 12 ma/L



<u>Spring</u> >2420

194

38.3

8.9 0.04

< 0.1

Polk County Conservation Water Quality Monitoring Program





#### Site Details

LBC3 BLB 977159

Watershed

Beaver Creek

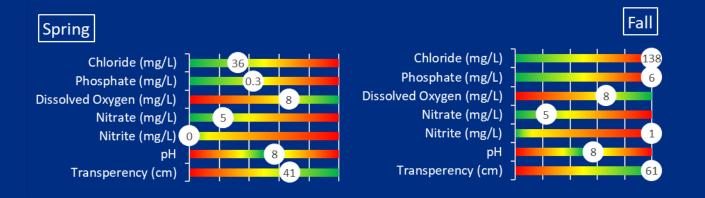
Field Monitors

Spring – Team #7

Fall - Team #7

#### Lab sample results

<u>Fall</u>
24,810
1,340
154.8
4.32
1
1.93



#### Parameter Ranges

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
	0 - 12 mg/l





## BBV 977160

\$

Polk County Conservation Water Quality Monitoring Program



Prairie Point

BBV 977160

Watershed

Beaver Creek

Field Monitors

Spring – Jenna Gatzke, PCC

Fall - no data

#### Trestle to Trestle Trail - Prairie Point. Access via trail , travel on trail just past water quality kiosk.

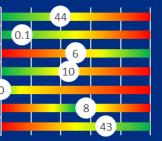
Polk County Snapshot (Site Beaver Creek at Prairie Point)

#### Lab sample results

No samples obtained

#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



Fall – No report

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Owldor	12  mg/l

Return to Site Map

#### 2022 Snapshot Report POLK COUNTY



# BCL 977161

Polk County Conservation Water Quality Monitoring Program

Polk County Snapshot (Site Big Creek Lake)

#### Lab sample results

No samples obtained

### Site Details

Big Creek Lake BCL 977161

Watershed Big Creek

Field Monitors

Spring & Fall – Heidi Anderson PCC

Spring

#### Chloride (mg/L) 25 Phosphate (mg/L) 0 Dissolved Oxygen (mg/L) 6 Nitrate (mg/L) 5 Nitrite (mg/L) 0 pH 8 Transperency (cm) NR

Chloride (mg/L) 25 Phosphate (mg/L) 0 Dissolved Oxygen (mg/L) 6 Nitrate (mg/L) 0 Nitrite (mg/L) 0 pH 7 Transperency (cm) 5

#### Parameter Ranges

Fall

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxyger	n 0–12 mg/L







🥪 Polk County Snapshot (Site Saylorville Lake)

#### Lab sample results

No samples obtained

SLL 977164 Watershed

Des Moines

**Site Details** 

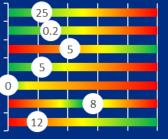
Saylorville Lake

Field Monitors

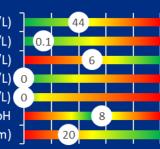
Spring & Fall – Heidi Anderson PCC

#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) 0 pН Transperency (cm)



Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) 0 Nitrite (mg/L) 0 pН Transperency (cm)



Fall

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0-12 mg/L









#### Lab sample results

No samples obtained

**Site Details** 

Witmer Pond DWP 977168

Watershed Des Moines

Field Monitors Spring – no data Fall – no data

> Spring– No report

2022 Snapshot Report

**POLK COUNTY** 

WATER QUALITY MONITORING PROGRAM Fall – No report

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Owlean	12  mg/l



🥪 Polk County Snapshot Grandview Pond

#### Lab sample results

No samples obtained

Site Details

Grandview Pond DGP 977169

Watershed Des Moines

Field Monitors Spring – no data Fall – no data

> Spring– No report

Fall – No report

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxygo	2.0 12 mg/l









#### Lab sample results

No samples obtained

#### **Site Details**

MacRae Pond DMP 977170

Watershed Des Moines

Field Monitors Spring – no data Fall – no data

> Spring– No report

**POLK COUNTY** 

WATER QUALITY

MONITORING PROGRAM

Fall – No report

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Owygo	2.0 12 mg/l

DDL 977173 Water Qua Program

Polk County Conservation Water Quality Monitoring Program



#### Lab sample results

No samples obtained

Site Details

Deans Lake DDL 977173

Watershed
Des Moines

Field Monitors Spring – no data Fall – no data

> Spring– No report

Fall – No report

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0-12 mg/L





## SSY 977189

SAYLOR CREEK

Polk County Conservation Water Quality Monitoring Program



#### **Site Details**

SSY 977189 SAYLOR CREEK

Watershed

SAYLOR CREEK

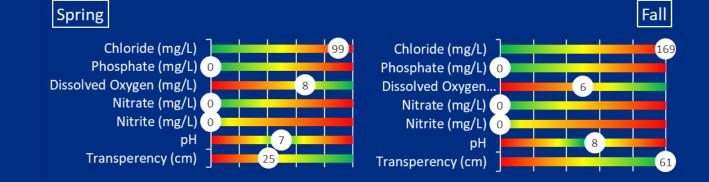
Field Monitors

Spring & Fall – City of Ankeny

## Old Magazine Road (south of John Deere) (south of box culvert; upstream is fenced and private property)

#### Lab sample results

No samples obtained



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 – 12 mg/L





BBG 977192 BIG CREEK

**BIG CREEK** 

## BBG 977192





#### Lab sample results

No samples obtained

Field Monitors

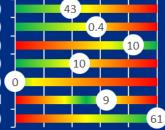
Watershed

Spring & Fall –

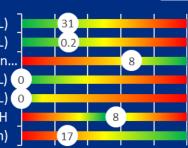
Michael French, PCC

#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen... Nitrate (mg/L) Nitrite (mg/L) PH Transperency (cm)



Fall

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 - 12 mg/L





**ROCK CREEK** 

Spring & Fall – Heidi Anderson,

RRO 977196 Rock Creek

Watershed

Field Monitors

PCC

## RRO 977196

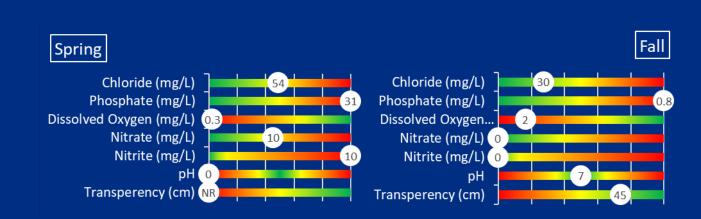




Rock Creek High Trestle Trail; SE of trail; NE of Weigel Dr.

#### Lab sample results

No samples obtained



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Return to Site Map

Dissolved Oxygen 0 - 12 mg/L





# WWL 977197

Polk County Conservation Water Quality Monitoring Program

Walnut Creek at Valley Dr.



#### **Site Details**

WWL 977197 Walnut Creek

Watershed

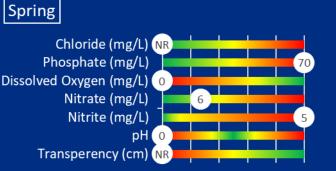
WALNUT CREEK

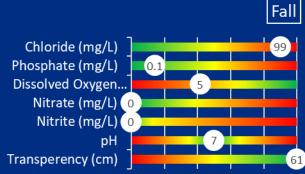
Field Monitors

Spring & Fall -Steve Falck

#### Lab sample results

No samples obtained





#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
	0 10 //

mg/L

Return to Site Map

Jxygen





Polk County Snapshot (Site Jester Park Pond)  $\approx$ 

#### Lab sample results

No samples obtained

#### **Site Details**

Jester Park Pond JPP 977214

Watershed **DES MOINES** 

Field Monitors

Spring & Fall –

Spring

Heidi Anderson, PCC

#### Chloride (mg/L) 25 Phosphate (mg/L) 0 Dissolved Oxygen (mg/L) Nitrate (mg/L) 0 Nitrite (mg/L) 0 pН Transperency (cm) 61

Fall Chloride (mg/L) 25 Phosphate (mg/L) 0 Dissolved Oxygen... Nitrate (mg/L) 0 Nitrite (mg/L) 0 pН Transperency (cm)

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxyge	n 0–12 mg/L



## SSP 977222

<u>Spring</u> >2420

238

29.7

3.72 0.04

< 0.1

Polk County Conservation Water Quality Monitoring Program





Fall

#### Site Details

SSP 977222 SC3

Watershed

SPRING CREEK

Field Monitors

Spring – Team #2

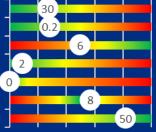
Fall – Team #2

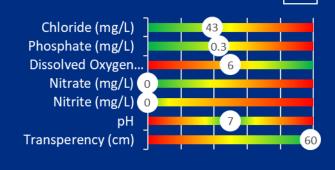
Lak	o samj	ple res	ults

	<u>Fall</u>
Total Coliforms MPN/100ml	120,330
E. coli MPN/100ml	1,210
Chloride mg/L	47.9
Nitrate as N mg/L	<0.05
Nitrite as N mg/L	<0.1
Phosphorus-O as P mg/L	<0.1



Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)





#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0-12 mg/L





Spring

>2420

1553

32.2

15.87

0.09

< 0.1

Polk County Conservation Water Quality Monitoring Program

Walnut Creek Tributary, Clive



#### **Site Details**

WWI 977223 WC Trib

Watershed

WALNUT CREEK

Field Monitors

Spring & Fall -

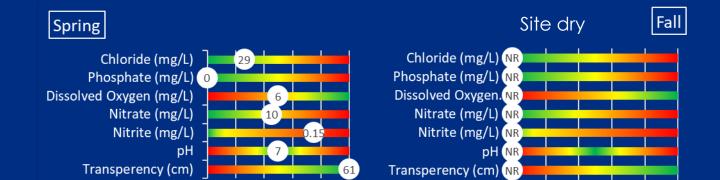
City of Clive Public Works Team #1

#### Lab sample results

Total Coliforms MPN/100ml E. coli MPN/100ml Chloride mg/L Nitrate as N mg/L Nitrite as N mg/L Phosphorus-O as P mg/L

Fall

Site dry



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Overse	





<u>Spring</u> >2420

249

39.5

13.49 0.09

< 0.1

Polk County Conservation Water Quality Monitoring Program

#### **Site Details**

WWL 977224 WC8

Watershed

WALNUT CREEK

Field Monitors

Spring & Fall –

City of Clive Public Works Team #1

Lab sample results	Lc	ak	0	S	a	m	p	e	r	e	SI	U	lts	
--------------------	----	----	---	---	---	---	---	---	---	---	----	---	-----	--

	<u>Fall</u>
Total Coliforms MPN/100ml	9,600
E. coli MPN/100ml	980
Chloride mg/L	36.2
Nitrate as N mg/L	<0.05
Nitrite as N mg/L	<0.1
Phosphorus-O as P mg/L	<0.1



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 - 12 mg/L



WLW 977225

<u>Spring</u> >2420

119

39.7

21.05 0.09

< 0.1

Polk County Conservation Water Quality Monitoring Program



LWC1 WLW 977225

Watershed

WALNUT CREEK

Field Monitors

Spring & Fall –

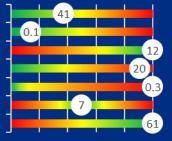
City of Clive Public Works Team #1

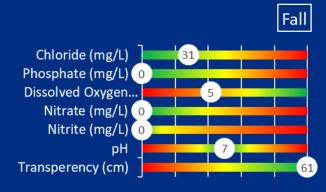
#### Lab sample results

	<u>Fall</u>
Total Coliforms MPN/100ml	9,850
E. coli MPN/100ml	1,350
Chloride mg/L	30.9
Nitrate as N mg/L	<0.05
Nitrite as N mg/L	<0.1
Phosphorus-O as P mg/L	<0.1



Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)





#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 – 12 mg/L





SSP 977242 Spring Creek

## SSP 977242

Polk County Conservation Water Quality Monitoring Program



## 🥪 Spring Creek near SE Polk High School

#### Lab sample results

No samples obtained

Field Monitors

Watershed

Spring – Melany Shaw

SPRING CREEK

Fall – Team #3

Spring

Chloride (mg/L)

Phosphate (mg/L) 0

Nitrate (mg/L)

Transperency (cm)

Nitrite (mg/L) 0

pН

Dissolved Oxygen (mg/L)

25



## **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxygei	n 0–12 mg/L





WNW 977252 N Walnut Creek

## WNW 977252

Polk County Conservation Water Quality Monitoring Program

North Walnut Creek North of Hickman Rd and Colby Woods Drive

#### Lab sample results

No samples obtained

Field Monitors

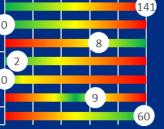
Watershed

Spring & Fall – Allan Goldberg

WALNUT CREEK

#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



Fall – No report

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oriveren	





## JJR 977270



Polk County Conservation Water Quality Monitoring Program

Jordan Creek North of University Boulevard



Fall

#### Lab sample results

No samples obtained

Field Monitors

Watershed

Spring – Team 8

Spring

**Site Details** 

JJR 977270 Jordan Creek

Fall – Jeff Behan, Randy Cox, City of West Des Moines

JORDAN CREEK



#### Parameter Ranges

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0-12 mg/L





YYD 977273 Yeader Creek

Watershed YEADER CREEK

Field Monitors

Spring & Fall – Reed Russell, PCC

**POLK COUNTY** 

WATER QUALITY

MONITORING PROGRAM

YYD 977273

Polk County Conservation Water Quality Monitoring Program

SW 13th St. bridge (residential), walk south on hill at the dead end of SW 13th Street

#### Lab sample results

No samples obtained

Spring– No report Fall – No report

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L







#### **Site Details**

ELO 977275 Easter Lake Outlet

Watershed Easter Lake

Field Monitors

Spring & Fall -

City of Des Moines, Clean Water Program

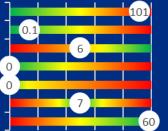
#### Lab sample results

No samples obtained

Fall – No report

## Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) PH Transperency (cm)



**Parameter Ranges** 

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 - 12 mg/L





## JPW 977300

Polk County Conservation Water Quality Monitoring Program



#### Site Details

JPW 977300 Paw Creek

Watershed Des Moines

Field Monitors

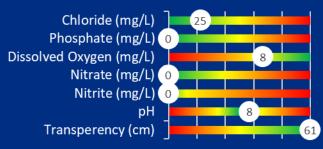
Spring & Fall –

David Weidt, John Mackey, PCC

### Lab sample results

No samples obtained

#### Spring



Fall – No report

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
	0 10 //

mg/l

Return to Site Map

Jxygen





FFM 977301 Fourmile Creek

Watershed Fourmile

Field Monitors

Spring & Fall – Lew Major, PCC

## FFM 977301

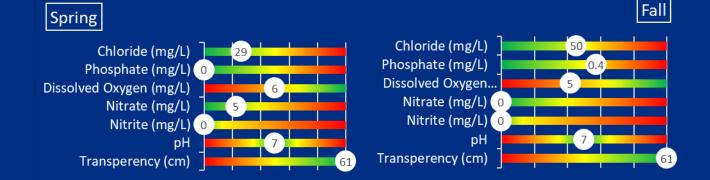
Polk County Conservation Water Quality Monitoring Program



NE 36th, Ankeny; on the north side of NE 36th Street bridge

#### Lab sample results

No samples obtained



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 - 12 mg/L





MMD 977302 Mud Creek

Watershed Mud Creek

Field Monitors

Spring & Fall – Charlie Finch, PCC

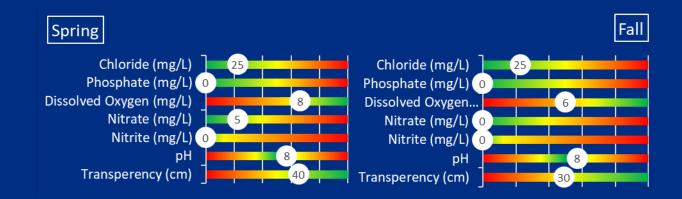
## MMD 977302

Polk County Conservation Water Quality Monitoring Program



#### Lab sample results

No samples obtained



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L





MMD 977303 Mud Creek

Mud Creek

## MMD 977303

Polk County Conservation Water Quality Monitoring Program



S NE 62nd Avenue just north of Altoona

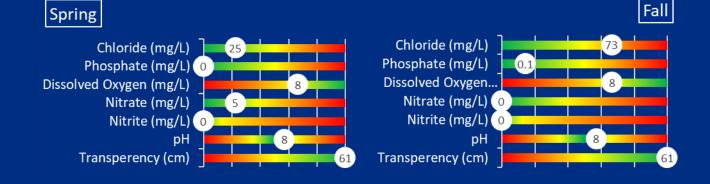
#### Lab sample results

No samples obtained

Field Monitors

Watershed

Spring & Fall – James Dotzler, PCC



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
	0 10

Dissolved Oxygen 0 – 12 mg/l





## MMD 977304

Polk County Conservation Water Quality Monitoring Program



#### **Site Details**

MMD 977304 Mud Creek

Watershed Mud Creek

Field Monitors

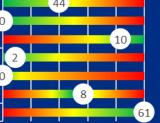
Spring & Fall – Zach Deutmeyer, Al Pasker, PCC

#### Lab sample results

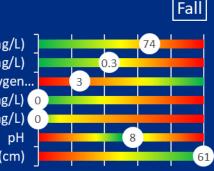
No samples obtained

#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen... Nitrate (mg/L) Nitrite (mg/L) PH Transperency (cm)



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L





YYD 977305



Polk County Conservation Water Quality Monitoring Program



#### Site Details

YYD 977305 Yeader Creek

Watershed Yeader Creek

Field Monitors

Spring & Fall – Reed Russell, PCC Lab sample results

No samples obtained

Spring– No report

2022 Snapshot Report

**POLK COUNTY** 

WATER QUALITY MONITORING PROGRAM Fall – No report

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 – 12 mg/L



## CBL 977306

Polk County Conservation Water Quality Monitoring Program



\$ Chichaqua Bottoms Greenbelt, 118th near Bailey Carpenter

#### Lab sample results

No samples obtained

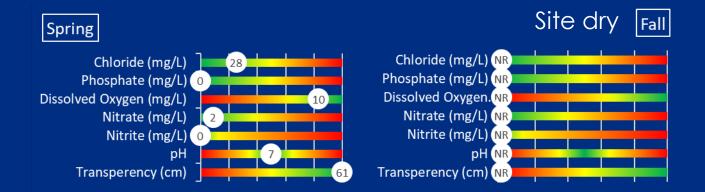
**Site Details** 

CBI 977306 **Bluff Creek** 

Watershed Bluff Creek

Field Monitors

Spring & Fall – Lael Neal, PCC



### Parameter Ranges

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxygen 0 – 12 mg/L	





CCR 977307 Carney Creek

Watershed Carney Creek

Field Monitors Spring & Fall – Dan Hrubes, PCC

## CCR 977307

Polk County Conservation Water Quality Monitoring Program



Chichaqua Bottoms Greenbelt, entering Buttonbush

#### Lab sample results

No samples obtained

#### Spring Site dry Fall Chloride (mg/L) Chloride (mg/L) NR Phosphate (mg/L) Phosphate (mg/L) NR Dissolved Oxygen (mg/L) Dissolved Oxygen. NR Nitrate (mg/L) Nitrate (mg/L) NR Nitrite (mg/L) 0 Nitrite (mg/L) NR pН pH NR Transperency (cm) Transperency (cm) (NR)

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 - 12 mg/L



FFM 977308

Polk County Conservation Water Quality Monitoring Program



Vandalia Avenue, west of Hwy 5 near the mouth of the river

#### Lab sample results

No samples obtained

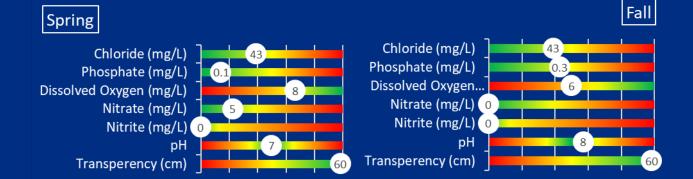


Fall – Team #8

**Site Details** 

FFM 977308 Fourmile Creek

Watershed



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 - 12 mg/L





FDR 977309 Deer Creek

## FDR 977309

Polk County Conservation Water Quality Monitoring Program



Deer Creek tributary-NE Frisk Drive, Ankeny

#### Lab sample results

No samples obtained

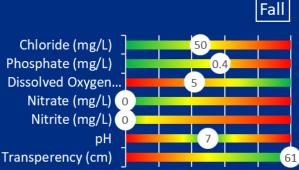
Fourmile Creek

Watershed

Field Monitors

Spring & Fall – Lewis Major, PCC

# Spring Site closed - construction Chloride (mg/L) NR Chloride Phosphate (mg/L) NR Phosphate Dissolved Oxygen (mg/L) NR Dissolved Nitrate (mg/L) NR Nitrate Nitrite (mg/L) NR Nitrate Nitrite (mg/L) NR Nitrite PH NR Transperency (cm) NR



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 - 12 mg/L





C04 977310

## C04 977310

Polk County Conservation Water Quality Monitoring Program



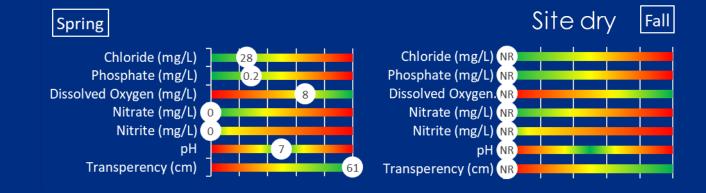
Chichaqua Bottoms Greenbelt- water from DD4, original Skunk River near Otter Trail, east of control marsh

#### Lab sample results

No samples obtained



Spring & Fall – Lael Neal, PCC



#### **Parameter Ranges**

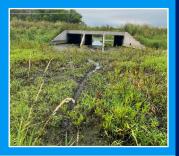
Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0-12 mg/L

Return to Site Map

## 2022 Snapshot Report





C38 977311 Drainage Ditch 38

Watershed Skunk River

Field Monitors

Spring & Fall – Dan Hrubes, PCC

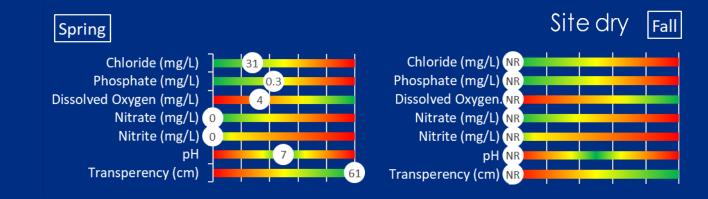
# C38 977311

Polk County Conservation Water Quality Monitoring Program



#### Lab sample results

No samples obtained



#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
	0

Return to Site Map

)xvaen

mg/L





FMC 977312 Muchiknock Creek

Watershed Fourmile Creek

Field Monitors

Spring & Fall –

Michael French, PCC

Spring



Polk County Conservation Water Quality Monitoring Program



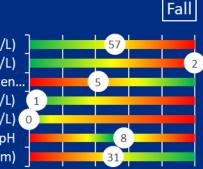
## Suchiknock Creek - NE Berwick Dr.

### Lab sample results

No samples obtained

Chloride (mg/L) 25 Phosphate (mg/L) 0 Dissolved Oxygen (mg/L) 8 Nitrate (mg/L) 5 Nitrite (mg/L) 0 pH Transperency (cm)

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen... Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



### Parameter Ranges

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 - 12 mg/L





JPW 977313 Paw Creek

## JPW 977313

Polk County Conservation Water Quality Monitoring Program



#### Lab sample results

No samples obtained

Field Monitors

Watershed

Spring & Fall –

**Des Moines** 

David Weidt, John Mackey, PCC

#### Spring Chloride (mg/L) 25 Phosphate (mg/L) 0 Dissolved Oxygen (mg/L) 8 Nitrate (mg/L) 0 Nitrite (mg/L) 0 pH 8 Transperency (cm) 61

Fall – No report

#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 – 12 mg/L







Polk County Conservation Water Quality Monitoring Program



Little Fourmile Creek at East University Avenue bridge

#### Lab sample results

No samples obtained

Fourmile Creek

Watershed

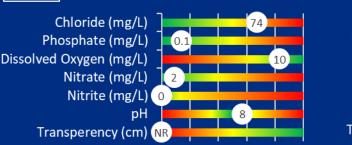
FLF 977321 Little Fourmile

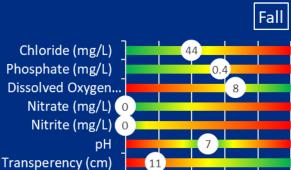
Field Monitors

Spring – John Harri & Penny Thomsen

Fall – John Harri

Spring





#### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L





Santiago Creek

## SSN 977322

Polk County Conservation Water Quality Monitoring Program



Property on Santiago Drive at bridge near NE 82<sup>nd</sup> Avenue

#### Lab sample results

No samples obtained

Santiago Creek

SSN 977322

Field Monitors

Watershed

Spring & Fall –

Spring

Jim Tredway

#### Site dry Fall Chloride (mg/L) NR Chloride (mg/L) Phosphate (mg/L) NR Phosphate (mg/L) Dissolved Oxygen. NR Dissolved Oxygen (mg/L) Nitrate (mg/L) NR Nitrate (mg/L) Nitrite (mg/L) NR Nitrite (mg/L) 0 pH NR pН Transperency (cm) NR Transperency (cm)

#### Parameter Ranges

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 - 12 mg/L





ELM 977323 MAGNOLIA CREEK

Watershed Easter Lake

Field Monitors

Spring & Fall –

City of Des Moines, Clean Water Program

# ELM 977323



Polk County Conservation Water Quality Monitoring Program

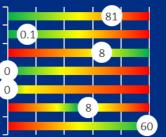


### Lab sample results

No samples obtained

Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) PH Transperency (cm)



Fall – No report

### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 – 12 mg/L





FLF 977324 Little Fourmile

Watershed Fourmile Creek

Field Monitors

Spring & Fall – City of Altoona



Polk County Conservation Water Quality Monitoring Program



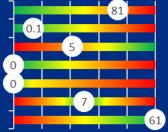
Little Fourmile Creek on south side along railroad culvert, Lyon's park in Altoona

### Lab sample results

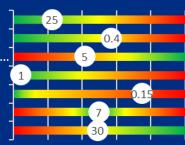
No samples obtained

#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) PH Transperency (cm)



Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen... Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



Fall

### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 – 12 mg/





# CCW 977325 Water Que Program

Polk County Conservation Water Quality Monitoring Program



Crawford Creek at SE 9<sup>th</sup>, north of Hartford Avenue

### Lab sample results

No samples obtained

Field Monitors

Watershed

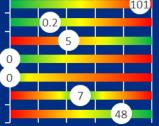
Spring & Fall –

**Des Moines** 

City of Des Moines, Clean Water Program

#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) PH Transperency (cm)



Fall – No report

### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Owygor	- 0 10 mg/l

Return to Site Map



### Site Details

CCW 977325 Crawford Creek



CLI 977326 Case Lake Inflow

Watershed Des Moines

Field Monitors

Spring & Fall –

City of Des Moines, Clean Water Program

# CLI 977326

Polk County Conservation Water Quality Monitoring Program



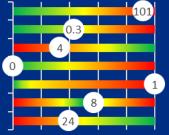
Case Lake Inflow on Hartford Avenue north of East Park Avenue and South of Case Lake

### Lab sample results

No samples obtained

#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)



Fall – No report

### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 - 12 mg/L





# IIN 977327

\$

Polk County Conservation Water Quality Monitoring Program



Indian Creek, NE 162ND Avenue, east of NE 104TH Street, south of Maxwell

### Lab sample results

No samples obtained

INDIAN CREEK

IIN 977327

**Site Details** 

Watershed Indian Creek

Field Monitors Spring –Team #11 Fall –No Report

### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Sitrite (mg/L) Phosphate (mg/L) Nitrite (mg/L) Phosphate (mg/L) Sitrite (mg/L) Phosphate (mg/L) Sitrite (mg/L) Fall – No report

### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 - 12 mg/L





DSM 977328 DM River Tributary

Watershed Des Moines

Field Monitors

Spring & Fall –

Rachel Haindsfield, DMPR



Polk County Conservation Water Quality Monitoring Program

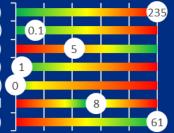


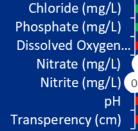
### Lab sample results

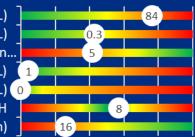
No samples obtained

#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) PH Transperency (cm)







Fall

### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0 - 12 mg/L





DSM 977329 Unnamed creek

Watershed Des Moines

Field Monitors

Spring & Fall –

Joel Van Roekel, DMPR



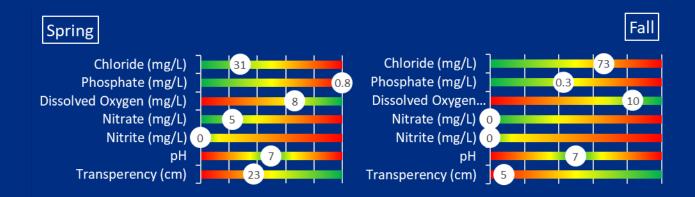
Polk County Conservation Water Quality Monitoring Program



# Unnamed creek - Hartford Avenue

### Lab sample results

No samples obtained



## Parameter Ranges

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Return to Site Map

)xvaen





WGC 977330 **Glendale** Cemetery

Watershed Walnut Creek

Field Monitors

Spring & Fall –

Shane Laycock, DMPR



66

Polk County Conservation Water Quality Monitoring Program



## Lab sample results

No samples obtained

Spring

Chloride (mg/L) Phosphate (mg/L) 0 Dissolved Oxygen (mg/L) Nitrate (mg/L) 0 Nitrite (mg/L) 0 pН Transperency (cm)

Fall -No report lightening

### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
	0 10 //

12 mg/l

Return to Site Map

Jxygen





# FFM 977332

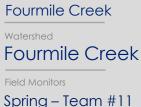
Polk County Conservation Water Quality Monitoring Program



Fourmile creek west of Alleman Country Estates at NE 134th Avenue between NW 2nd Street and NE 6th Street

### Lab sample results

No samples obtained

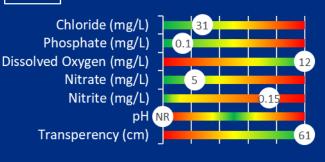


**Site Details** 

FFM 977332

Fall – No Report

Spring



Fall – No report

### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
	0

Return to Site Map

Jxygen





Greenwood inflow

Raccoon River

DGW 977333

# DGW 977333

Polk County Conservation Water Quality Monitoring Program



Drainage creek going into northwest side Greenwood Park Pond near Art Center

### Lab sample results

No samples obtained



Watershed

Spring – Abby Chungath, Team #12

Fall – Abby Chungath, Team #5

#### Site dry Spring Fall Chloride (mg/L) Chloride (mg/L) NR Phosphate (mg/L) Phosphate (mg/L) NR Dissolved Oxygen (mg/L) Dissolved Oxygen. NR Nitrate (mg/L) 0 Nitrate (mg/L) NR Nitrite (mg/L) Nitrite (mg/L) NR pН pH NR Transperency (cm) Transperency (cm) NR 15

### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L
Dissolved Oxyge	n 0–12 mg/L





DGE 977334 Greenwood inflow

Watershed

Raccoon River

Field Monitors Spring – Abby Chungath, Team #12

Fall - Abby Chungath, Team #5



Polk County Conservation Water Quality Monitoring Program



Fall

Drainage creek going into northeast side Greenwood Park Pond near Art Center

### Lab sample results

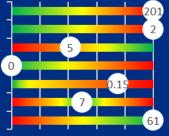
No samples obtained

#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) pH Transperency (cm)

**POLK COUNTY** 

WATER QUALITY MONITORING PROGRAM



Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen... Nitrate (mg/L) 0 Nitrite (mg/L) 0 pH Transperency (cm) 19

### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Return to Site Map

Dissolved Oxygen 0 - 12 mg/L



DGS 977335 Greenwood outflow

Watershed

Raccoon River

Field Monitors

Spring – Abby Chungath, Team #12

Fall – Abby Chungath, Team #5



Polk County Conservation Water Quality Monitoring Program



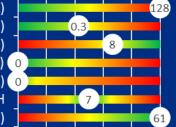
Drainage creek leaving Greenwood Park Pond near Art Center

### Lab sample results

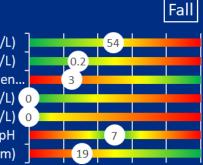
No samples obtained

#### Spring

Chloride (mg/L) Phosphate (mg/L) Dissolved Oxygen (mg/L) Nitrate (mg/L) Nitrite (mg/L) PH Transperency (cm)







### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L







Gray's Lake Beach

Raccoon River

Spring – No Report Fall – Claire Hruby, Drake University

GLL 977163

Watershed

Field Monitors

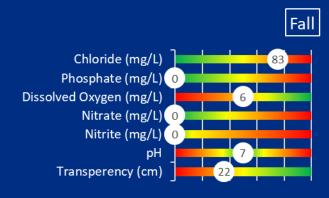
GLL 977163



Polk County Conservation Water Quality Monitoring Program

#### Lab sample results

	<u>Fall</u>
Total Coliforms MPN/100ml	6310
E. coli MPN/100ml	410
Chloride mg/L	115.2
Nitrate as N mg/L	<0.05
Nitrite as N mg/L	0.21
Phosphorus-O as P mg/L	<0.1



### **Parameter Ranges**

Nitrate	0 – 50 mg/L
Phosphate	0 – 10 mg/L
Chloride	25 – 600+ mg/L

Dissolved Oxygen 0-12 mg/L

Return to Site Map

#### Spring – No report





# **Regional Snapshot**

Volunteers, partners and agencies throughout the region join forces to capture data in the 2023 Spring Snapshot

Spring Snapshot partners include Des Moines Water Works, Cities of Altoona, Ankeny, Clive, Des Moines, Johnston, West Des Moines, Izaak Walton League, Iowa Rivers Revival, Wells Fargo, Impact 7G, Inc., ITA Group, Seneca, and efforts from County Conservation Boards, Izaak Walton League and volunteers in:

- Greene County
- Polk County
- Story County
- Whiterock Conservancy
- Cedar River
- Cedar River Mower County, Minnesota
- Missouri River Watershed
- Middle Raccoon in Panora
- Upper Iowa River













# **Regional Snapshot**

Volunteers, partners and agencies throughout the region join forces to capture data in the Fall 2023 Snapshot

Fall Snapshot partners include

- Des Moines Water Works
- City of Altoona
- City of Ankeny
- City of Clive
- City of Des Moines and Des Moines Parks and Recreation
- City of West Des Moines and WDM Parks and Recreation
- Izaak Walton League
- Impact 7G, Inc.
- ITA Group
- Seneca
- Wells Fargo

Regional efforts led by

- Prairie Rivers of Iowa with Story County Conservation sites in Story, Boone, and Hamilton counties
- Izaak Walton League, Panora Chapter sites in Greene County,
- Izaak Walton League, Minnesota chapter sites along Cedar River headwaters









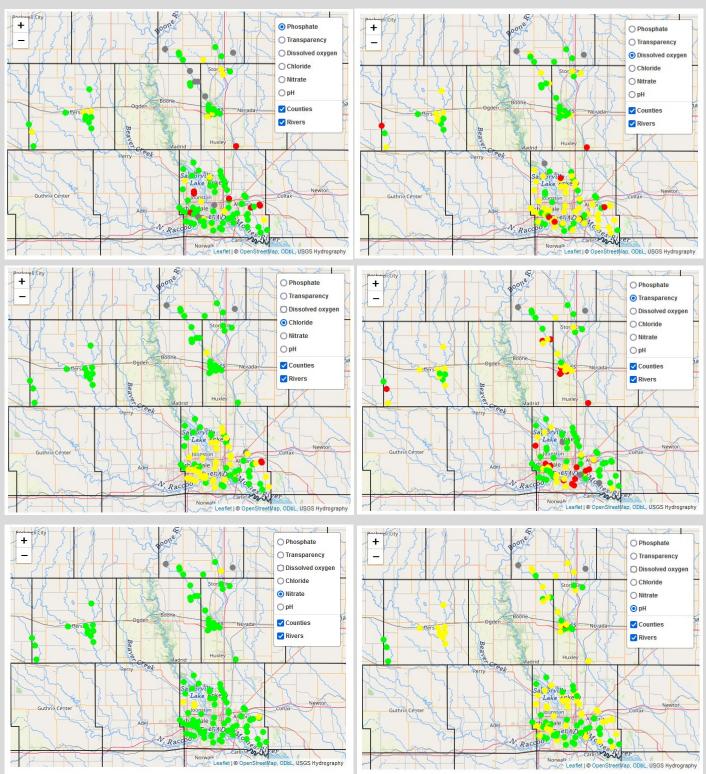


# **Regional Snapshot**

Fall 2023

Regional Snapshot results courtesy of Prairie Rivers,

Story County





Polk County Conservation Water Quality Monitoring Program

# More information

For additional information and summarized annual reports visit our website at polkcountyiowa.gov/conservation/water-quality/

All site records are available on the <u>EPA Water Quality Exchange</u> (WQX) website and on the EPA How's My Waterway website.



To become involved in our program, please contact Ginny Malcomson, Project Coordinator, to learn more.

Ginny Malcomson, Water Quality Coordinator <u>Ginny.Malcomson@PolkCountylowa.gov</u> Polk County Conservation 11204 NE 118<sup>th</sup> Avenue Maxwell, Iowa 50161 515-323-5319 www.leadingyououtdoors.org

2023 Snapshot Report



# Volunteers & Partners

Polk County Conservation Water Quality Monitoring Program

### **Spring Team Participants**

- #1 City of Clive Public Works Rai Tokuhisa
- #2 Chris Widmer, Chandler and Jacob Flatness
- **#3** Andy Curl, Dominic and Kathy Paterno, Jennifer Herker
- **#4** Jennifer Repp, Megan Down
- **#5** Lori Danielson, Michelle Schmitt, **Steven Grund**, Susan Heathcote
- **#6** Doug Williams, Greg Fay, Lowell DeVries, Rob Boyd
- **#7** James Thayer, Julie Osweiler, Lou Shannon
- **#8** Tim Gorde, Ashley Collinsworth
- **#9** Andrew Majerus, Jeremy Herselius, Joel Havick
- **#10** Alexandria Houge, Amanda Shepard, Shaylinn Daniels, Alyssa Mounphoxay
- **#11** Julie Letze, **Ron Dunek**
- #12 Abby Chungath, Emma Carter
- **#13** Alyssa Bustillos, Dennis Schmitt, **Moira Leu**

#### Fall Team Participants

- #1 City of Clive Public Works Rai Tokuhisa
- #2 Steven Grund, Lowell DeVries
- **#3** Joel Havick, Ryan Finestead, Joe Steffan, Hollie Guyer, Julie Medhus
- #4 Greg Fay, Jim Hamilton
- #5 Abby Chungath, Elise Pohl
- #6 Jeff Yanecek
- #7 Susan Heathcote, Nikki Goodell
- **#8** Megan Down, Jennifer Repp
- #9 Lou Shannon, Julie Osweiler
- **#10** Ashley Collinsworth, Tim Gorde
- **#11** Alyssa Bustillos, Robin Fortney
- #12 Steve Falck with Valley High student

Those in **bold** are PCCWQMP field monitors

Des Moines Water Works Izaak Walton League City of Altoona City of Ankeny City of Clive City of Johnston City of Des Moines Des Moines Parks and Recreation City of West Des Moines West Des Moines Parks and Recreation Wells Fargo





# Field Monitors

Polk County Conservation Water Quality Monitoring Program



### Thank you to our regular PCC WQMP Field Monitors who participated in the Snapshot Events

#### \*led teams of volunteers

<u>Spring</u> \* Abby Chungath Allan Goldberg City of Altoona - Karen Oppelt City of Ankeny - Becky Ford, Carla Moore, Jared Bright DMPR - Callie Leau Courtright DMPR - Joel Van Roekel DMPR - Ken Trytek DMPR - Rachel E. Haindfield **DMPR** - Shane Laycock DMPR - Tad Thomas Doug Johanson \* Moira Leu PCC - Al Pasker PCC - Amanda R. Brown PCC - Dan Hrubes PCC - Heidi Anderson PCC - James Dotzler PCC - Janean L. Struthers PCC - Lael Neal PCC - Lindsey Page PCC - Missy Smith PCC - Zachary Deutmeyer Penny Thomsen Rich and Jody Anderson \* Ron Dunek Steve Falck Steve Grund

City of Altoona - Karen Oppelt City of Ankeny - Carla Moore City of Clive Public Works City of West Des Moines - Jeff Behan DMPR - Joel VanRoekel DMPR - Ken Trytek **DMPR** - Rachel Haindfield DMPR - Tad Thomas Jim Tredway John Harri Melanie Perry Nikki Goodell PCC - Al Pasker PCC - Charlie Finch PCC - Dan Hrubes PCC - Heidi Anderson PCC - James Dotzler PCC - Lael Neal PCC - Lewis Major PCC - Michael French PCC - Missy Smith PCC - Zach Deutemeyer \* Rai Tokuhisa Rich and Jody Anderson \* Steve Falck \* Steven Grund

Fall

\* Abby Chungath

