



PROTECTING, MAINTAINING & IMPROVING THE HEALTH OF ALL MINNESOTANS

September 28, 2018

Hastings City Council
c/o Ms. Melanie Mesko Lee, Clerk
Hastings City Hall
101 East Fourth Street
Hastings, MN 55033

Dear Council Members:

Subject: Level 2 Assessment Completed – E. coli MCL Exceedance, Hastings, Dakota County, PWSID 1190012

Enclosed is a summary of the results of the coliform bacteria analyses conducted on water samples collected from your public water system. On September 27, 2018 a Level 2 assessment was completed by a Minnesota Department of Health (MDH) representative in response to an E. coli Maximum Contaminant Level (MCL) Exceedance. The assessment included an evaluation of the source and treatment, the distribution system operation and maintenance, existing monitoring data, sampling protocol, and any recent atypical circumstances that may have impacted your water system. The assessment form is also enclosed.

The assessment identified no sanitary defects, and the cause is unknown. After disinfection and flushing of the distribution system, and after repeat sampling conducted on September 24, 2018, the water was found to be free of coliform bacteria. Your drinking water is in compliance with the Safe Drinking Water Act for coliform bacteria.

This letter should be placed in your records for not less than five (5) years.

If you have any questions concerning the information contained in this report, please contact Simon McCormack at 651-201-5180 or via email at simon.mccormack@state.mn.us.

Sincerely,

A handwritten signature in black ink, appearing to read 'KRP' followed by a horizontal line.

Karla R. Peterson, P.E., Supervisor
Community Public Water Supply Unit
Environmental Health Division
P.O. Box 64975
St. Paul, Minnesota 55164-0975

KRP:SCM

Enclosures

cc: Water Superintendent
Bonnie Shafer, MDH Compliance Officer, St. Paul Office

**Total Coliform Rule
Level 2 Site Assessment Form**

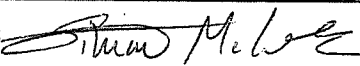
PWSID: 1190012	PWS Name: Hastings	Population: 22,335
Source Type: EW	City: Hastings	
Responsible Operator: Mark Peine	Phone:	
Bacteriological Sample Collector(s) (if not Responsible Operator): Dave Dube	Phone:	
Date of Most Recent Absent Total Coliform Samples: 9-6-18	Date Assessment Completed: 9-27-18	

	Issues	Issue Identified? Y/N	Issue Description Sanitary Defect found? Yes <input type="checkbox"/> No <input type="checkbox"/>	Corrective Action	
				Action	Date
	1. Have any of the following occurred at relevant facilities prior to the collection of TC samples?				
B A C K G R O U N D	a.	Treatment process interruption	N		
	b.	Pressure loss event (< 5 psi)	N		
	c.	Operation or maintenance activities may have introduced coliform bacteria	N		
	d.	Vandalism	N		
	e.	Unauthorized access	N		
	f.	Visibly unsanitary conditions	N		
	g.	Fire fighting event	N		
	h.	Distribution flushing event	N		
	i.	Source sample(s) with positive analytical total coliform result(s)	N		
	j.	Community public health suspects waterborne illness	N		
	2. Were any monitoring site issues observed?				
P R E M I S E S	a.	Tap condition issue	N		
	b.	Tap location issue	N		
	c.	Normal tap function may cause contamination	N		
	d.	Plumbing changes	N		
	e.	Plumbing breaks	N		
	f.	Cross connection identified	N		
	g.	Required backflow prevention device not present /operational / maintained	N		
	h.	Low pressure event in plumbing	N		
	i.	POE / POU treatment device present	N		
	3. Was incorrect sampling protocol observed?				
T A P	a.	Aerator not removed	N		
	b.	Gasket(s) not removed	N		
	c.	Tap not flushed	N		
	d.	Tap surfaces not disinfected	N		
	e.	Swivel tap	N		

Questions		Issue Identified?	Issue Description	Corrective Action	
		Y/N	Sanitary Defect found? Yes <input type="checkbox"/> No <input type="checkbox"/>	Action	Date
D I S T R I B U T I O N	4. Was a Distribution issue observed?				
	a.	System pressure: low (< 5 psi) or negative	N	→ RPES are tracked All new lines are passing, but possible something happened when put into service.	
	b.	Cross connection (high risk) identified	N		
	c.	Pump station sanitary defect	N		
	d.	Air relief valve terminates lower than allowed	N		
	e.	Fire hydrant in high water table	N		
	f.	Unsecured water purchase location	N		
	g.	Watermain break	N		
	h.	Watermain repair or installation	N		
	i.	Watermain flushing	N		
j.	Required backflow prevention device not present /operational / maintained	N			
S T O R A G E	5. Was a Storage issue observed?				
	a.	Overflow and/or vent not properly screened	N	→ overflow screen on OSR was damaged. All other screens and vent screens intact.	
	b.	Unsecured facility	N		
	c.	Inproperly sealed access port (door / vent / joint)	N		
	d.	Poor tank condition	N		
	e.	Vent not turned down or not maintaining approved air gap at termination	N		
	f.	Insufficient drain/overflow termination air gap (< 12")	N		
	g.	Insufficient pressure tank minimum pressure	N		
	h.	Inappropriate maintenance (painting / coating) schedule	N		
	i.	Inappropriate inspection schedule	N		
j.	Observed leak(s)	N			
k.	Single inlet / outlet pipe	N			
l.	Chlorine residual not detectable in water exiting the storage tank	N/A			
T R E A T M E N T	6. Was a Treatment issue observed?				
	a.	Treatment device(s) not operational or not maintained	N		
	b.	Recent installation or repair of treatment equipment	N		
	c.	Treatment process change(s)	N		
	d.	Treatment interruption (chemical feed / turbidity excursion / disinfectant)	N		
	e.	Filter effluent turbidity profile anomaly	N/A		
	f.	Settled water turbidity anomaly	N/A		
	g.	Required C x T inactivation value not met	N/A		
	h.	Filter flow rate above approved capacity	N		
i.	Chlorine residual not detectable in water entering the distribution system	N/A			

Questions		Issue Identified?	Issue Description	Corrective Action	
		Y/N	Sanitary Defect found? Yes <input type="checkbox"/> No <input type="checkbox"/>	Action	Date
SOURCE	7. Was a Source issue observed?				
	a. Inactive source introduced	N			
	b. New source introduced	N			
	c. Sanitary seal compromised	N			
	d. Unscreened vent	N			
	e. Insufficient air gap	N			
	f. Inadequate well casing termination height	N			
	g. Insufficient security	N			
	h. Standing water near well	N			
	i. Contaminant spill	N			
	j. Heavy rainfall	N			
	k. Flooding	N			
	l. Rapid snow melt	N/A			
	m. Unprotected cross connection(s) at the wellhead	N			
	n. Power supply interruption	N			
o. Source turnover (surface water)	N/A				
p. Algal bloom (surface water)	N/A				
CAUSE	8. Were any potential contaminant sources discovered?				
	Potential contaminant source discovered	N			

→ RPZ at one well was up for testing in May. Used for outside spigot which also has a vacuum breaker. RPZ will be tested this week.

Name of person completing form: Simon McCormack, P.E.
 Signature:  Date: 9-27-18

Comments: Unable to determine cause. Possible sources are:
 • New watermain construction
 • Backflow event in the distribution system
 • Likely backflow event is the depressurization of an irrigation system followed by blowing out the lines

It is strongly recommended that the Hastings water system implement permanent/continuous chlorination. The system's size makes it vulnerable to contamination in the distribution system. MDD recommends maintaining a total chlorine residual of 1.0 ppm or a free chlorine residual of at least 0.5 ppm on all parts of the distribution system.

Note: This form must be completed within 30 days of notification of TCR positive result, and a copy must be maintained in your records for five (5) years.
 Completed forms should be submitted by email to simon.mccormack@state.mn.us or by mail to:
 Attn: Simon McCormack
 Minnesota Department of Health
 Community Water Supply Unit
 P.O. Box 64975
 St. Paul, MN 55164-0975.