

VARIANCE REQUEST Iowa Department of Natural Resources			
1. Date:	October 2, 2013	14. Decision:	
2. Reviewer/Engr.:	(Emy) Wenxin Liu	Date:	
3. Date Received:	June 24, 2013		
4. Facility Name:	City of Denver Wastewater Treatment		
5. Facility Number:	6-09-15-0-01	15. Appealed:	
6. County Number:	9	Date:	
7. Program Area:	CP (Wastewater)		
8. Facility Type:	C01(collection/transport)		
9. Subject Area:	309(stream crossing)		
10. Rule Reference:	567-64.2 (9) a		
11. Design Std. Ref.:	13.12.7, 12.5.11		
12. Consulting Engr.:	AECOM, Waterloo, IA		
13. Variance Rule:	567-64.2(9)c		
16. <u>Description of Variance Request:</u>			
<p>The South lift station and force main project proposes 140 feet 10-inch HDPE pipe crossing Quarter Section Run in Denver, Iowa using directional boring construction method. IA 13.12.7 states that force main construction near streams or used for aerial crossings shall meet the requirement of 12.5.11 and 12.5.12 of these standards. 12.5.11 states that sewer entering or crossing streams shall be constructed of cast or ductile pipe with mechanical joints. The project uses HDPE pipe crossing a waterway with a Directional Boring method.</p>			
17. <u>Applicant's/Consulting Engineer's Justification:</u>			
<p>The Directional Boring will minimize any impacts on the stream and the HDPE will be used as the Force Main following the installation and completion of the pump station. The engineer believes the use of HDPE is justified since it has been successfully used in similar projects in the past. The Directional Boring will minimize any impacts on the stream.</p>			
18. <u>Department's Justification:</u>			
<p><i>This Variance is recommended to be approved.</i></p> <p>Installation of HDPE by Directional Boring has been permitted in previous projects and proven to provide water tightness and free from changes in alignment or grade. Directional Boring can prevent disturbance of surface and avoid entering waterway.</p>			
19. <u>Precedents Used:</u>			
<p>Carroll STP-2004; Des Moines WRA-2004; City of Hills-2007; Iowa City-2009; City of Waterloo-water main crossing Cedar River 2010.</p>			
20. Staff Reviewer:	<i>Satya Chempati for Emy Liu</i>	Date:	10/2/2013
21. Supervisor:	<i>Satya Chempati</i>	Date:	10/3/2013
22. Authorized by:	<i>[Signature]</i>	Date:	10/2/2013



STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR
KIM REYNOLDS, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
CHUCK GIPP, DIRECTOR

October 2, 2013

Larry Farley
City Administrator
City of Denver
PO Box 394
100 Washington Street
Denver, Iowa 50622-0394

RE: Wastewater Collection System Facility Plan
City of Denver, Iowa
CWSRF CS1920609 01
S2007-0432

Subject: Variance Request from 567 IAC 64.2(9) and Design Standards Section 13.12.7 & 12.5.11

Dear Mr. Farley:

After careful and thorough consideration, the Department has approved your June 24, 2013 request for a variance from Iowa Administrative Code Subrule 64.2(9) and Design Standards Chapter 13.12.7 and 12.5.11 of the Iowa Wastewater Facilities Design Standards, which requires cast or ductile pipe with mechanical joints construction material for sewer crossing streams. The variance has requested HDPE pipe crossing under a waterway using a Directional Boring trenchless technology.

Based on the documentation presented by your Engineer, it is the determination of this Department that satisfactory justification has been presented to warrant the granting of a variance for separation distance. The requested variance is deemed to be reasonable and necessary pursuant to the Iowa Code section 455B.181.

The facts presented for the project present unique circumstances and the variance is therefore justified to provide the narrowest exception possible to the provisions of the rule in accordance with Rule 561 IAC 10.5. Since the project planning and construction may last more than one year, the variance is considered to be of a permanent nature. The validity of this variance approval shall last for a period of one year from the date of the construction permit in accordance with Rule 567 IAC 10.5.

This decision is based on our review of justification presented to support the request. Our concurrence with the request is based on the Department's finding that the resulting project will provide substantially equivalent effectiveness as would be provided by technical compliance with the design standard on this issue.

Please feel free to call Emy Liu at 515-281-8509 or email me at emy.liu@dnr.iowa.gov if you have any further questions.

Sincerely,



Shelli Grapp
Water Quality Bureau Chief

Cc: AECOM, Waterloo
Wayne Dillard, EPA Region VII
FOI
DNR Sewage File: 6-09-15-0-01
CWSRF #CS1920609 01
DNR Legal Services