



Montana Department of Transportation  
PO Box 201001  
Helena MT 59620-1001

**Memorandum**

To: ✓ Tom Martin, P.E.                      Walt Scott  
                Consultant Design Engineer      Right of Way Utilities

From: Mark Goodman, P.E.                  Walter E. Ludlow, P.E. *Walt*  
                Hydraulic Engineer *MDG*      Butte District Hydraulic Engineer

Date:        June 15, 2004

Subject:     DEQ Storm Drain/Water Main Requirements

As a result of recent changes in the Department of Environmental Quality's regulations regarding water mains and storm drains, please be advised that the new regulations will likely affect some of our urban projects and require additional coordination with the DEQ.

Attached is a brief summary of design criteria directly associated with water main and storm drain installations. Also refer to the Montana Public Works Standard Specifications, Standard Drawing No. 02660-2, "Water and Sewer Main Separation" which relates directly to the DEQ requirements.

If you have any questions, please contact Walt Ludlow at 444-7656.

34:MAG:WEL:DEQ-SD-Memo  
Copies: with attachments (2)  
Paul Ferry  
Mark Goodman  
Hydraulic Staff

## **Water Mains and Storm Drains The New DEQ Regulations 5/21/04**

In light of a recent issues on the 19<sup>th</sup> and Main – Bozeman project, regarding a water main adjustment required to avoid the proposed storm drain that is presently under construction, I would like to share some information with you regarding the new DEQ requirement. The new information is available in the “Water Quality Circulars” located on DEQ’s web site. (<http://www.deq.state.mt.us/wqinfo/Circulars.asp>), “DEQ 1- Standards for Water Works” contains the majority of the changes that affect our projects. The changes documented in this circular will affect the proximity of storm drain facilities with water mains. Here is a brief summary of specific items that will likely affect some of our urban projects:

- Section 8.6, Storm Sewers (Storm Drains) and Sanitary Sewers have been lumped into the same category.
- Section 8.6.2, Parallel Installation; Water mains must be laid at least 10 feet horizontally from any existing or proposed sewer main.<sup>1</sup>

Section 8.6.3, Crossings; Water mains crossing sewers must be laid to provide a minimum vertical distance of 18 inch between the outside of the water main and the outside of the sewer. At crossings, one full length of water pipe must be located so both joints will be as far from the sewer as possible.<sup>1</sup> The standard pipe length is typically 20 feet. In discussing this with John Camden of the DEQ, he stated that the intent was to have the joint as far from the sewer line as possible. It also correlates with the 10 foot horizontal off set for parallel lines.

Section 8.6.4, Exception; The reviewing authority must specifically approve any deviation from the requirements of Sections 8.6.2 and 8.6.3 when it is impossible to obtain the specified separation distances. The individual review engineer may approve a request, when deviation variables are within the constraints of a deviation previously approved by the Department.<sup>1</sup> Save your exception granted documents as they may become useful on future projects.

On a related issue is the subject of Water Main vs. Water Service. Water mains are under the jurisdiction of DEQ. Water Services are not. Determining what is a main and what is a service is a little vague. In discussing this with John Camden, he indicated that a water main serves multiple buildings and a water service serves a single building. The interesting part of this is that a single building could be a school, hotel or hospital and the service could be any size or length. Deferring the regulation to the local authority with regard to water service line installation requirements. Please see attached email.

<sup>1</sup> DEQ 1- Standards for Water Works

## Ludlow, Walter

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**From:** Clark, Rachel (DEQ)  
**Sent:** Tuesday, May 25, 2004 8:15 AM  
**To:** Camden, John; Ludlow, Walter  
**Subject:** RE: Definitions- Water Service, Water Main

Walter -

Thanks for your email. Generally speaking, a water main serves more than one building or residence and a service line serves only a single building or residence. The only standard we have for service lines is under DEQ-1, Section 8.9. "Water services and plumbing must conform to relevant local and state plumbing codes, or to the Uniform Plumbing Code as amended by ARM 8.70.302."

Rachel Clark  
Senior Engineer  
Public Water Supply Section

-----Original Message-----

**From:** Camden, John  
**Sent:** Monday, May 24, 2004 5:45 PM  
**To:** Clark, Rachel (DEQ)  
**Subject:** FW: Definitions- Water Service, Water Main

Please review and address. Thanks

John

-----Original Message-----

**From:** Ludlow, Walter  
**Sent:** Monday, May 24, 2004 3:04 PM  
**To:** Camden, John  
**Subject:** Definitions- Water Service, Water Main

John,

Based on our discussion last Thursday, regarding the differences between a water service and a water main, some of the basic differences are quite apparent. However, I would like to run my interpretation of the two by you for insurance that I have the correct understanding. The "water main" seems pretty straight forward but the "water service" has a few shades of gray.

**Water Main:** Under the jurisdiction of the DEQ; A water line, public or private, that serves multiple buildings or residences.

**Water Service:** Not under the jurisdiction of the DEQ; A water line, public or private, that serves a "single building" (house, gas station, restaurant, school, hotel or hospital) regardless of the pipe diameter or length of line.

Are these legitimate definitions?

Thanks you for your help,

Walter Ludlow, P.E.  
Butte District Hydraulics Engineer  
444-7656