

Iowa DNR Water Supply Engineering Section Guidance: LUST Sites and Water Main Construction

What to check when starting a water main project

1. Use Facility Explorer to find leaking underground storage (LUST) sites within 500 feet of the proposed water main. Some municipalities keep records and may be able to provide a map.
2. If a LUST site is within 500 feet, contact the Iowa DNR Records Center to obtain the Utility Notification Form and the plume maps for the site.
 - a. These maps are to be used for determining the area of concern. Water main should be ductile iron pipe (DIP) with nitrile or fluoroelastomer (FKM) gaskets wherever the proposed water main would be in contact with a plume.
 - b. Plume maps can be used to reroute the proposed water main to avoid the need for a material change.
 - c. Questions on interpretation of plume maps can be directed to either a Certified Groundwater Professional or Iowa DNR's UST Section.

Resources

[Facility Explorer](#) – used for finding UST and LUST sites.

1. Under the Radius tab, select “Underground Storage Tanks – Leaking” under the Programs in the Search box.
2. Change the radius to 500 feet.
3. Select “Leaking UST” and deselect all other layers in the “Layers” box.
4. In the “Search” box, select to view results as a list or on a map.
5. Use the map to find your project location.
6. Click the link to “Set Center Point” then click on your project location on the map
7. Review the results.

Iowa DNR Records Center – used to obtain the required forms for a water main project with a nearby LUST site.

Email: DNR.Records@dnr.iowa.gov Telephone: (515) 725-8480

Request the Utility Company Notification Form and associated plume maps for each LUST site.

[Certified Groundwater Professional \(CGP\) List](#) – scroll down for a list of CGPs who can help interpret plume maps.

DNR's UST Section [Website](#) and [Roster](#) – for more information on the UST section and contact info.

DNR's Water Supply Engineering Section Links and Contact Information – for relevant forms and contact information.

[Water Supply Engineering Construction Permits website](#)

Contact: Gabe Lee, P.E. at Gabe.Lee@dnr.iowa.gov, Telephone: (515) 725-2990

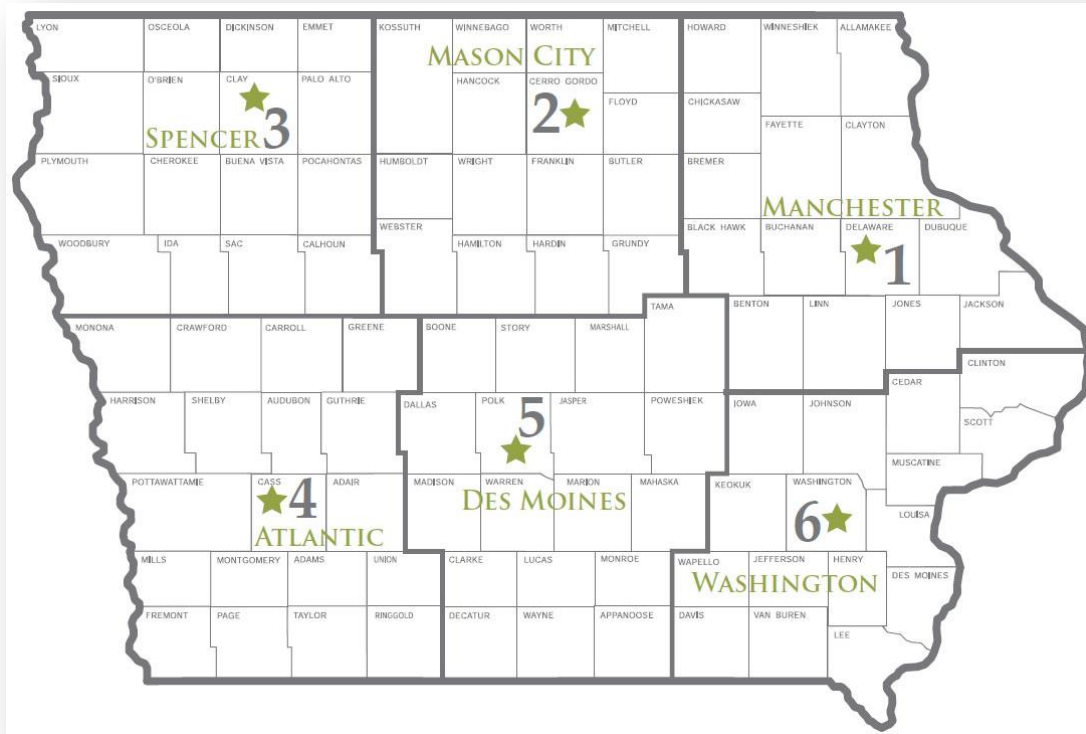
To find an Iowa DNR Water Supply project manager on [W/Wisard](#): Click on the “Water Supply / DWSRF Public Search” button and search based on the information you have.

Relevant Studies

- [Impact of Hydrocarbons on PE/PVC Pipes and Pipe Gaskets](#), Chu-Lin Cheng, James A. Gaunt, Feng Mao, and Say Kee Ong, 2007.
- [Assessment and Calculation of BTEX Permeation through HDPE Water Pipe, Final Report](#), Dae Hyun Koo, Ph.D., P.E., 2012.

Field Office Contact Information

If you find smelly soil during construction, contact your local Iowa DNR field office. DNR's Water Supply Engineering Section (WSE) requires any new water main construction in contaminated soils to be constructed of non-permeable materials. If a project using PVC water main has to switch to DIP with nitrile gaskets, a change order should be submitted to WSE to reflect actual materials installed. Contact the WSE project manager using the contact info included in the permit letter or by searching W/Wisard to determine what should be submitted for the change order. Typically, a copy of Schedule 1a and two sets of the change order with the engineer's certification will be required. If the total water main length increases by 5% or more, Schedule 1c is also required with the corresponding fee.



FO #	Location	Phone Number
1	Manchester	(563) 927-2640
2	Mason City	(641) 424-4073
3	Spencer	(712) 262-4177
4	Atlantic	(712) 243-1934
5	Des Moines	(515) 725-0268
6	Washington	(319) 653-2135