## **CHAPTER 91**

## WELL PROTECTION

91.01 Well Protection

91.02 Nonconforming Uses

**91.01 WELL PROTECTION.** No structure or facility of the following types shall be located within the distances hereinafter set forth from a deep well or shallow well:

## SEPARATION DISTANCES

Source of Contamination	Contamination Required minimum lateral distance from well a horizontal on the ground surface, in feet	
	Deep Well*	Shallow Well*
WASTEWATER STRUCTURES:	<u> </u>	
Point of Discharge to Ground Surface		
Sanitary and industrial discharges	400	400
Water treatment plant wastes	50	50
Well house floor drains	5	5
Sewers and Drains**		
Sanitary and storm sewers, drains	0-25 feet: prohibited 25-75 feet if water main pipe 75-200 feet if sanitary sewer pipe	0-25 feet: prohibited 25-75 feet if water main pipe 75-200 feet if sanitary sewer pipe
Sewer force mains	0-75 feet: prohibited 75-400 feet if water main pipe 400-1000 feet if sanitary sewer pipe	0-75 feet: prohibited 75-400 feet if water main pipe 400-1000 feet if sanitary sewer pipe
Water plant treatment process wastes that are treated onsite	0-5 feet: prohibited 5-50 feet if sanitary sewer pipe	0-5 feet: prohibited 5-50 feet if sanitary sewer pipe
Water plant wastes to sanitary sewer	0-25 feet: prohibited 25-75 feet if water main pipe 75-200 feet if sanitary sewer pipe	0-25 feet: prohibited 25-75 feet if water main pipe 75-200 feet if sanitary sewer pipe
Well house floor drains to sewers	0-25 feet: prohibited 25-75 feet if water main pipe 75-200 feet if sanitary sewer pipe	0-25 feet: prohibited 25-75 feet if water main pipe 75-200 feet if sanitary sewer pipe
Well house floor drains to surface	0-5 feet: prohibited 5-50 feet if sanitary sewer pipe	0-5 feet: prohibited 5-50 feet if sanitary sewer pipe
Land Disposal of Treated Wastes		
Irrigation of wastewater	200	400
Land application of solid wastes***	200	400

Source of Contamination	Required minimum lateral distance from well as horizontal on the ground surface, in feet	
	Deep Well*	Shallow Well*
Other	Beep wen	Shanow wen
Cesspools & earth pit privies	200	400
Concrete vaults & septic tanks	100	200
Lagoons	400	1000
Mechanical wastewater treatment	200	400
plants		
Soil absorption fields	200	400
CHEMICALS:		•
Chemical application to ground	100	200
surface		
Chemical & mineral storage above	100	200
ground	100	200
Chemical & mineral storage on or	200	400
underground	200	
Transmission pipelines (such as	200	400
fertilizer, liquid petroleum, or	200	400
anhydrous ammonia)		
ANIMALS:	50	50
Animal pasturage	50	50
Animal enclosure	200	400
Earthen silage storage trench or pit	100	200
Animal Wastes		
Land application of liquor or slurry	200	400
Land application of solids	200	400
Solids stockpile	200	400
Storage basin or lagoon	400	1000
Storage tank	200	400
MISCELLANEOUS:		
Basements, pits, sumps	10	10
Cemeteries	200	200
Cisterns	50	100
Flowing streams or other surface	50	50
water bodies		
GHEX loop boreholes	200	200
Railroads	100	200
Private wells	200	400
Solid waste landfills and disposal sites****	1000	1000

<sup>\*</sup> Deep and shallow well as defined in Iowa Code 567-40.2(455B). A deep well is a well located and constructed in such a manner that there is a continuous layer of low permeability soil or rock at least 5 feet thick located at least 25 feet below the normal ground surface and above the aquifer from which water is to be drawn. A shallow well is a well located and constructed in such a manner that there is not a continuous layer of low permeability soil or rock (or equivalent retarding mechanism acceptable to the department) at least 5 feet thick, the top of which is located at least 25 feet below the normal ground surface and above the aquifer from which water is to be drawn.

<sup>\*\*</sup> The separation distances are dependent upon two factors: the type of piping that is in the existing sewer or drain, as noted in the table, and that the piping was properly installed in accordance with the standards.

\*\*\* Solid wastes are those derived from the treatment of water or wastewater. Certain types of solid wastes from water treatment processes may be land-applied within the separation distance on an individual, case-by-case basis.

\*\*\*\* Solid waste means garbage, refuse, rubbish, and other similar discarded solid or semi-solid materials, including but not limited to such materials resulting from industrial, commercial, agricultural, and domestic activities.

(Section 91.01 - Ord. 10-2019 - Jan. 20 Supp.)

91.02 NONCONFORMING USES. The use of structures or facilities existing as of May 1, 2005, may be continued even though such use may not conform with the regulations of this chapter, in other words, such structures or facilities may be located within the distances set forth. However, such structures or facilities not in conformance with the terms of this chapter may not be enlarged, extended, reconstructed or substituted subsequent to such date.

(Ch. 91 – Ord. 8-05 – Jun. 05 Supp.)

