



# IRRIGATION

And

# High Capacity Wells

What You Need to  
Know...

Iowa DNR Water Use and Allocation Water  
Supply Engineering  
Wallace State Office Building  
502 E 9<sup>th</sup> St  
Des Moines Iowa 50319

## Are you considering irrigation?

- ? WILL you be pumping at or above 500 Gallons per Minute (gpm)?
- ? ARE there nearby Private Wells, Other High Capacity Wells or Industrial Wells?

## Know your well's geology, aquifers & water-bearing formations:

- + Bedrock - dolomite, limestone, sandstone
- + Alluvial or Buried sands and gravel
- + Protected aquifers such as:

*Jordan Sandstone (Ordovician)*

*Devonian Limestone*

*Silurian Dolomite*

*Dakota Sandstone (Cretaceous)*

## WHY is this IMPORTANT?

- ... Protect your well
- ... Protect your neighbor's well
- ... Protect Iowa's Ground Water Resources

## To Obtain a Water Use Permit for a High Capacity Well

- ✓ Provide map of proposed irrigation well site
- ✓ Provide map inventory of wells and well construction details within a 1 mile radius
- ✓ Contact us prior or during construction for pump testing guidance based upon your geological setting
- ✓ Submit results of any required pump testing – including production well and observation well(s)



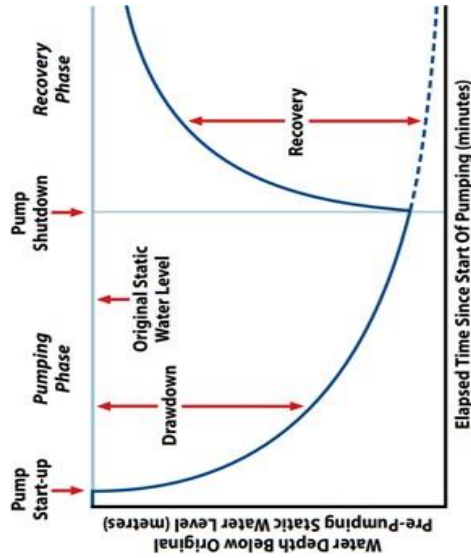
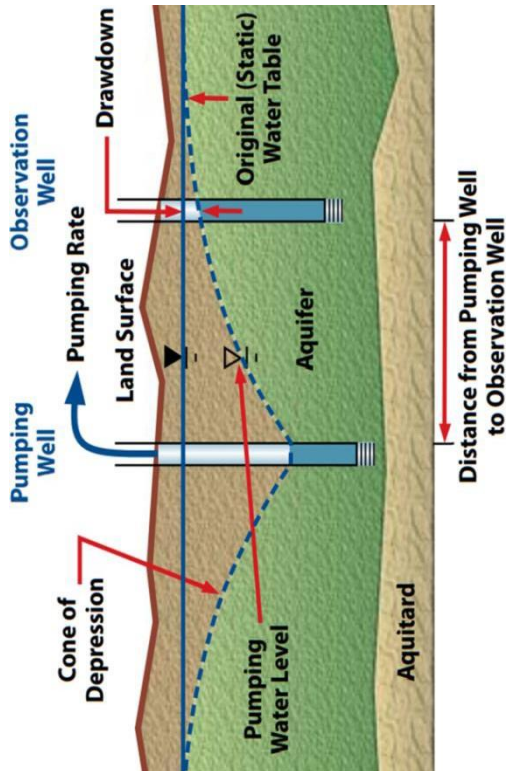


Figure 2. Graph showing the different phases of a constant rate pumping test – the pumping phase and the recovery phase.



## What Permits do you need?

County Private Well Construction Permit  
 ☎ Your local Iowa Certified Well Driller

DNR Water Use & Allocation Permit  
 ☎ DNR – Water Supply Engineering –  
 Water Use & Allocation Team

### Contact:

DNR Water Supply Engineering  
Water Allocation & Use (WSE- WAT)  
<http://www.iowadnr.gov/Environmental-Protection/Water-Quality/Water-Supply-Engineering/Water-Allocation-Use>

Michael K. Anderson, PE, Senior Engineer  
 ☎ (515) 725-0336

Deborah R. Williams, Geologist III  
 ☎ (515) 975-1644

[wateruse@dnr.iowa.gov](mailto:wateruse@dnr.iowa.gov)

### Additional Resources for:

DNR – Private Well Program  
<http://www.iowadnr.gov/Environmental-Protection/Water-Quality/Private-Well-Program>

Erik Day, Environmental Specialist Senior  
 ☎ (515) 402-9781

Well Mapping Resources  
 Iowa Geological Survey - GEOSAM  
<https://geosam.ihr.uiowa.edu/home>

Iowa DNR - Technical Bulletin 23.1 – SD 0014



IMPORTANT INFORMATION ON IRRIGATION