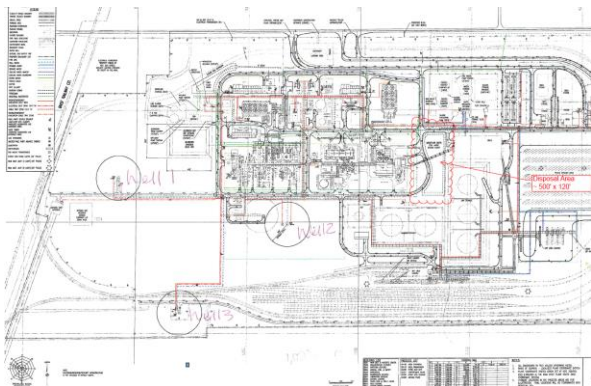


# INDUSTRIAL Production Wells

## 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



### Industrial Production Wells?

- ? 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)*

### Perform Hydro Geologic Review Well Forecast

### WHY is this IMPORTANT?

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



### 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)



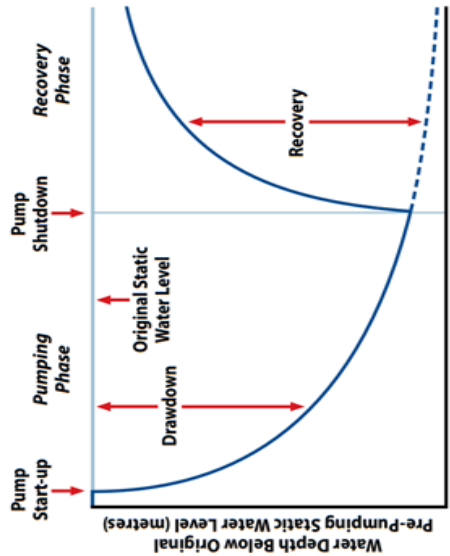
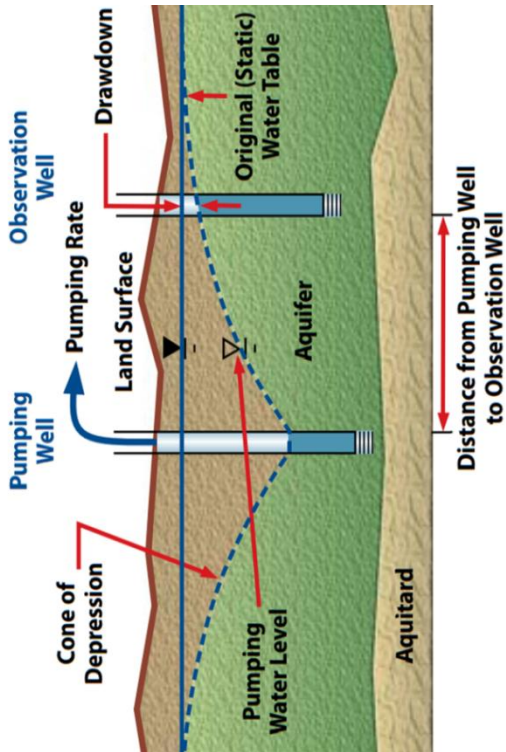


Figure 2. Graph showing the different phases of a constant rate pumping test – the pumping phase and the recovery phase.



## 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

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

Erik Day, Environmental Specialist Senior  
 ☎ (515) 402-7981

### Additional Resources for

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