

Iowa's Water Resources- water law



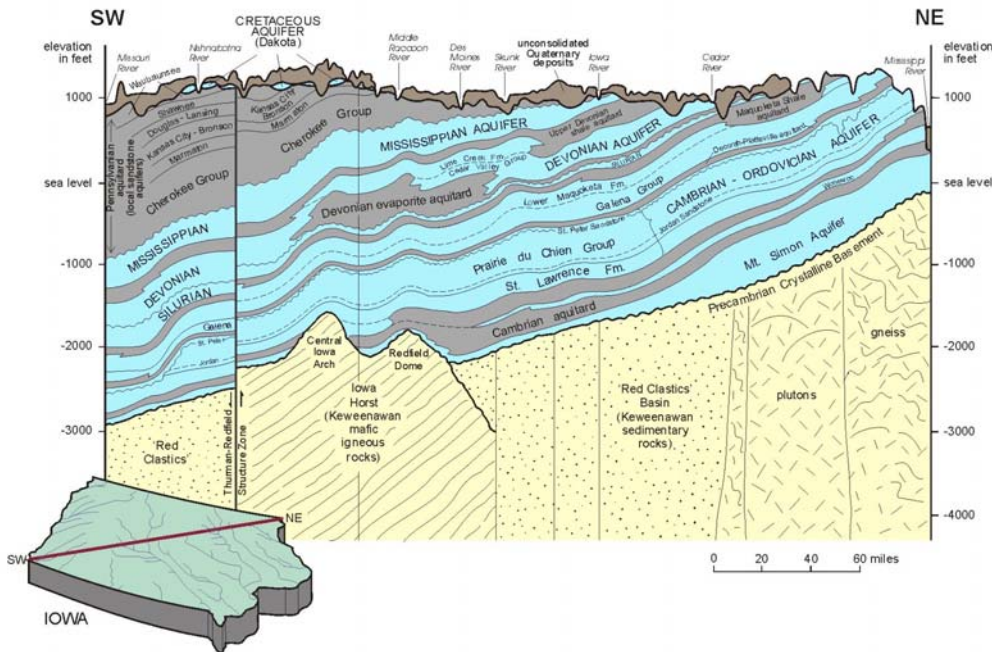
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Water-Key Resource -What/How!

- What Are Our Water Resources?
- How Much Water Do We Have?
- How Much Water Do We Use?



Bedrock Aquifer Systems across Iowa
Southwest to Northeast



Groundwater is below us everywhere, but...

- **Quantity**--Is there "enough" for our purpose?
 - Will it adversely impact others?
 - How do you decide?
- **Quality**--Is it "good enough"?
- **Sustainability**--Is it dependable for the long haul?
 - Will there be "enough" in the future?
 - How do you decide?

Is it Sustainable for the Long Term?

- Sustainability assessments lacking, in general.
- Information needed on GW recharge rates.
- Droughts are known to affect water table aquifers and streamflows.
- Declines in confined aquifers are known in a variety of areas.
- AND.....How do we seriously address the situation when a SPECIFIC conflict arises???? (Like in Sioux County....)

Who Gets It? From 1985 Iowa Water Plan:

Permitting and Drought Allocation Priorities

1. **Self-supplied domestic:** non-regulated, self-supplied wdrwl w/ lmtd ability for h₂o elsewhere.
2. **Domestic part of rural h₂o & municipal systems:** h₂o for preserving human life & welfare.
3. **Livestock:** h₂o for preservation of animal life.
4. **Power:** h₂o used incidental to power generation.
5. **Industrial:** h₂o used by commercial and industrial facilities.
6. **Non-traditional irrigation:** h₂o for fruit, vegetables & other newly introduced crops.
7. **Irrigation of traditional Iowa crops:** h₂o for soybeans, corn, alfalfa, etc.
8. **Recreation:** h₂o for lawn and golf course watering, car washing, other incidental uses.
9. **Out of state export:** h₂o exported to another state.

Introduction --- water “rights”

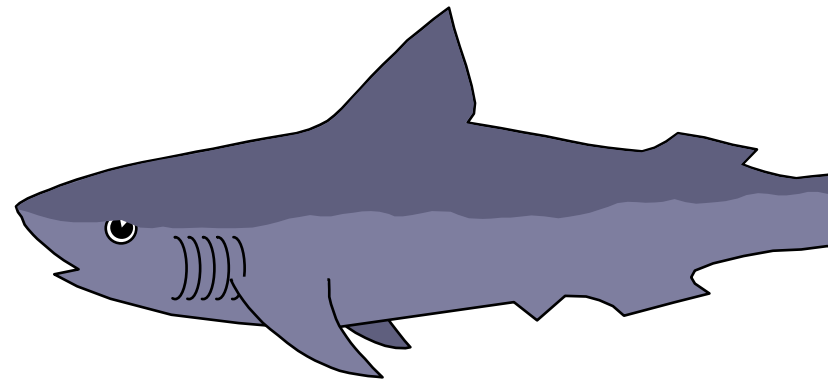
- Here is a quick overview of Iowa water rights law. This attempts to focus on groundwater sources, though some of the concepts originally arose out of surface water-related conflicts, so the discussion must begin there.

Appropriation doctrine

- Used in 17 western states
- “First in time, first in right”
- Further appropriation **ONLY** if H₂O is physically available
- The trick is discerning H₂O availability

Riparian doctrine

- Owner of land adjacent to stream (riparian land) is entitled to receive full natural flow, undiminished in quantity or quality. Used in 30 eastern states.



IOWA uses....

A combination of these which is best described as “modified riparian”. This focuses on preservation of instream H₂O uses. The concept originated in South Carolina and Mississippi. However, Iowa is the first state to extensively implement it.

Beneficial use

- The purpose of the law, adopted in 1957, is to “...*assure that water resources be put to beneficial use to fullest extent possible, that waste or unreasonable use of water be prevented, and that conservation be required*”.

Use, not ownership

- The right of a riparian owner to prohibit use of the H_2O by nonriparian neighbors is established; this right by no means makes the H_2O in the stream his property. The H_2O is considered a “wealth” of the people of the State. That is actually an old Roman Law concept.

How Do We Allocate Water?

- Iowa Code
 - All waters are “*public waters and public wealth*” of Iowa citizens. Iowa statute provides an allocation system based on “*beneficial use*”.
 - Waste, unreasonable use, and unreasonable methods of water use are prevented.
 - Water conservation is expected
- Permit System
 - Withdrawals in excess of 25,000 gallons/day from streams or aquifers require a permit from IDNR.
- Permit Reviews and Evaluations



WHY A PERMIT SYSTEM?

- Water permits are used in Iowa to assure “water rights”.
- All water permits are “tied” to the land in question. They remain an appurtenance to the land. If a property is sold, it does not follow the person.
- All permit must consider “effect on the natural flow” and the river’s established “average minimum flow”.
- Goal is to maintain level to satisfy demand.
- Also must consider effects on landowners with “prior or superior rights”. How this is done is ambiguous. IDNR’s role. Use of an agency is common in “Western” States.

Competing Uses

- Iowa's water allocation program sorts through competing uses
 - A permitting program to ensure **consistency** in decisions on use of water.
 - Ensure water is available for normal [unregulated] domestic and livestock use.
 - Provisions for **public involvement** in issuing water allocation permits.
 - Administrative procedure to resolve use conflicts.

WHAT DOES “VESTED” MEAN?

- Chapter 455A, the water rights statute, continues this ambiguity by use of vague provisions in referring to prior, superior, or vested rights.
- In practice, it is IDNR’s responsibility to sort this out. The use of a public agency to resolve water allocation conflicts is a western phenomenon.

What about groundwater???

- Rules similar to the riparian doctrine apply to groundwater. However....
- State laws all tend to be obsolete in using “good” hydrogeological science.
- Iowa is no exception to this. Groundwater is treated as “Diffused surface water...”
- Iowa DOES differentiate between confined and unconfined aquifers. Slightly. Five foot confining layer concept defines this.
- Opinion has varied on whether this gw analysis should be done on a local basis, an aquifer basis or a “whole-State basis”. This has never really been resolved.

Groundwater treated similar to surface water?

- Permitting system subject to specified conditions.
- “Threshold parameters” are drainage area of adjacent stream, and proximity to stream.
- (1/8 mile Protected Flow, 1/4 mile 7_Q10). Restrictions arise or are imposed similar to surface water applications.
- Some specific attention to Cambrian Jordan Sandstone (1977 Baseline level restriction) and to Cretaceous Dakota Sandstone formation (nearby well survey required).

For Information:

Department of Natural Resources

<http://www.iowadnr.com/index.html>

- **Water Supply-Allocation Program**

<http://www.iowadnr.com/water/wse/allocation.html>

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