

# Iowa Code Sections - Water Withdrawal Permits and Floodway Protection

04/09/22 swv

Water Withdrawal is governed by Iowa Code 455B Subchapter III “Water Quality” Part 4 “Water Allocation and Use & Floodplain Control”. These laws are expressed as rules in Iowa Administrative Code 567 chapters 50, 51, 52, 53, and 54. Rules are created by government agencies to implement laws. Where agency rules do not adequately implement laws, it is the Iowa Code (laws) that expresses legislative intent. Laws trump rules.

Iowa Code selections presented below are often excerpts from longer paragraphs. Emphasis is added as bold, underlined, or italics. My thoughts about each selection are given in blue.

## 455B Subchapter III Part 4 Water Allocation and Use & Floodplain Control

### 455B.261 Definitions.

4. “Beneficial use” means the application of water to a useful purpose that inures to the benefit of the water user and subject to the user’s dominion and control but does not include the waste or pollution of water.

*It’s noteworthy that in this definition a beneficial use does not inure to the public! This can provide confusion: regulators say they are protecting the public’s interest since only beneficial uses are permitted but really, they are protecting specific uses like water withdrawal for animal production which may or may not be beneficial to the public depending upon local circumstances. Your opinion matters! However, a beneficial use can never include the pollution of water. “Pollution” is defined very specifically later in the chapter.*

*If the industry requesting the water withdrawal permit disposes of a waste byproduct resulting from use of the permitted water in a location or manner that could pollute the aquifer, then the permit should not be allowed.*

5. “Depleting use” means the storage, diversion, conveyance, or other use of a supply of water if the use may impair rights of lower or surrounding users, may impair the natural resources of the state or may injure the public welfare if not controlled.

*Water withdrawal is a “depleting use” if it impairs “the natural resources of the state” or injures public welfare. In your comments, explain how “impairing the natural resources of the state” and “injury to the public welfare” applies to YOU.*

16. “Waste” means any of the following:

a. Permitting groundwater or surface water to flow, or taking it or using it in any manner so that it is not put to its full beneficial use.

*Again, “beneficial use” inures to the permittee, not the public, but that beneficial use cannot include pollution. In this case it is a “waste” of water if a byproduct of the activity using the permitted water will cause pollution of the aquifer.*

b. Transporting groundwater from its source to its place of use in such a manner that there is an excessive loss in transit.

c. Permitting or causing the pollution of a water-bearing strata through any act which will cause salt water, highly mineralized water, or otherwise contaminated water to enter it.

This subsection clearly applies since storage basin manure is 92-98% water. Basin-stored manure is the very epitome of “contaminated water”. Spreading or disposal on sloped and highly erodible land in areas of karst and sinkholes is the “act” by which contaminated water enters water-bearing strata. We need strong statements from hydrogeologists and other scientists and agronomists to document this causation. A number of articles and reports are included elsewhere on this website.

#### **455B.262 Declaration of policy and planning requirements.**

1. It is recognized that the protection of life and property from floods, the prevention of damage to lands from floods, and the orderly development, wise use, protection, and conservation of the water resources of the state by their considered and proper use is of paramount importance to the welfare and prosperity of the people of the state, and to realize these objectives, it is the policy of the state to correlate and vest the powers of the state in a single agency, the department, with the duty and authority to assess the water needs of all water users at five-year intervals for the twenty years beginning January 1, 1985, and ending December 31, 2004, utilizing a database developed and managed by the Iowa geological survey, and to prepare a general plan of water allocation in this state considering the quantity and quality of water resources available in this state designed to meet the specific needs of the water users.

As we know, the phrase “wise use” has been coopted to mean actions benefiting industry. Is “considered and proper use” defined elsewhere? Local residents should have a say in how “welfare and prosperity” is interpreted in an environmentally sensitive area like the Driftless Region. Communities derive significant economic benefit from nature-tourism, including hunting and fishing. There are several good studies about the economic impact of fishing in the Driftless Region. Not to mention Spook Cave, Pikes Peak, and other nature-based tourist attractions.

2. The general welfare of the people of the state requires that the water resources of the state be put to beneficial use which includes ensuring that the waste or unreasonable use, or unreasonable methods of use of water be prevented, and that the conservation and protection of water resources be required with the view to their reasonable and beneficial use in the interest of the people, and that the public and private funds for the promotion and expansion of the beneficial use of water resources be invested to the end that the best interests and welfare of the people are served.

The phrase “beneficial use in the interest of the people” is much more inclusive than a beneficial use inuring only to the permittee. A beneficial use should enhance, and certainly not abrogate, the public health or welfare of the people.

3. Water occurring in a basin or watercourse, or other body of water of the state, is public water and public wealth of the people of the state and subject to use in accordance with this chapter, and the control and development and use of water for all beneficial purposes is vested in the state, which shall take measures to ensure the conservation and protection of the water resources of the state. These measures shall include the protection of specific surface and groundwater sources as necessary to ensure long-term availability in terms of quantity and quality to preserve the public health and welfare.

In Iowa, the definition of “waters of the state” explicitly includes groundwater. The use of the phrase “public wealth of the people” is interesting. This should support an argument for local determination of what is in the public good for people living in a certain area. Local control. The last sentence is the exact language contained in rule that applies in the Supreme Beef situation.

#### **455B.262B Cooperation with the state geologist.**

The department may request and shall receive assistance from the state geologist pursuant to [section 456.14](#) to allow for the allocation and use of water resources, and the preclusion of conflicts among users of water resources, as provided in [this part](#).

The former State Geologist prepared a [whitepaper](#) in 2017 about the dangers of siting an earthen manure pit in the area of karst now occupied by Supreme Beef. In 2005 he coordinated the IGSB Guidebook Series No. 25 document “Living in Karst”. This has a wealth of useful information regarding the susceptibility of groundwater from surface pollution in areas of karst. Dr. Libra’s report was deemed not relevant by DNR in conjunction with the 2017 NPDES stormwater permit review and the 2020 NMP review.

There is no indication that in 2017 the Water Permit review team sought assistance from the state geologist to review the water withdrawal application in this area of karst. Conversely, for wastewater construction permits in areas of karst, all applications must be reviewed by a specified geologist (Ryan Clark - not the state geologist) at IGSB in Iowa City.

#### **455B.264 Jurisdiction — water and floodplains.**

2. Upon application by any person for permission to divert, pump, or otherwise take waters from any watercourse, underground basin or watercourse, drainage ditch, or settling basin within this state for any purpose other than a nonregulated use, the director shall investigate the effect of the use upon the natural flow of the watercourse, the effect of the use upon the owners of any land which might be affected by the use, the effect of the use upon prior users of the water source and contracts made under [section 455B.263](#) and whether the use is consistent with the principles and policies of beneficial use.

Clearly underground basin refers to the aquifer, in this case the “unconstrained Jordan aquifer”. The “use” is the production of beef in a facility continuously housing up to 11,600 cattle. A byproduct of beef production in this manner is liquid manure (92% water), approximately 7 gallons of manure per head per day. This is about 30,000,000 gallons of waste byproduct every year. This waste is applied on or just below the surface at a rate of approximately 17,000 gallons per acre. To be clear, the “owners of any land” directly affected consider the manure as fertilizer. However we and others have documented that manure applied to “highly erodible land” (NRCS HEL designation) will run off into surface waters and sinkholes during and after rainfalls. There are many studies showing that the shallow layers of till over karst are permeable to water borne pollutants (nitrate and bacteria for instance) and that once reaching the karst layer, those pollutants become part of the shallow aquifer groundwater literally within minutes, and in time become part of the deeper Jordan aquifer. Polluted groundwater expresses quickly in springs, streams, and caves (Beulah Falls at Spook Cave for example). “Principles and policies of beneficial use” do not allow pollution resulting from an otherwise beneficial use.

#### **455B.265 Permits for diversion, storage, and withdrawal — fees authorized.**

If the department determines after investigation that the diversion, storage, or withdrawal is consistent with the principles and policies of beneficial use and ensuring conservation, the department shall grant a permit. Regardless of the request in the application, and subject to appeal, the director or the department may determine the duration and frequency of withdrawal and the quantity of water to be diverted, stored, or withdrawn pursuant to the permit.

[The department has the complete authority to deny or adjust the permit request. The applicant can then appeal.](#)

3. Permits shall be granted for a period of ten years; however, permits for withdrawal of water may be granted for less than ten years if geological data on the capacity of the aquifer and the rate of its recharge are indeterminate,

The Jordan aquifer underlays a large part of Iowa. Special rules apply state-wide. Permits are only issued for 5 years. In most areas the Jordan aquifer is considered “confined”; there are impermeable layers above and below it, so when it is tapped it is under pressure. Think artesian wells. In NE Iowa, the geologic strata associated with the Jordan aquifer are much closer to the surface and the aquifer is considered “unconfined”. The layers immediately above the aquifer are in many areas permeable, so all water withdrawal permits in this area, including the Supreme Beef permit, state that “*the Jordan aquifer is unconfined and recharged by both overlying aquifers and the land surface in this area.*” This reinforces our argument that the aquifers contained in and below karst are very susceptible to pollution from all types of surface applied waste, including manure.

#### **455B.267 Permits for beneficial use — prohibitions.**

1. The director or the commission may issue a permit for beneficial use of water in a watercourse if the established average minimum water flow is preserved.

2. A use of water shall not be authorized if it will impair the effect of [this chapter](#) or any other pollution control law of this state.

This language defines a prohibition against pollution as a prohibition against violating pollution [laws \[statutes\]](#). This applies beyond any narrow interpretation contained in agency rules.

3. A permit shall not be issued or continued if it will impair the navigability of any navigable watercourse.

4. A permit to divert, store or withdraw water shall not be issued or continued if it will unreasonably impair the long-term availability of water from a surface or groundwater source in terms of quantity or quality, or otherwise adversely affect the public health or welfare.

This is the language that forms the basis for most objections the public can make to the renewal of this permit.

#### **455B.271 Modification or cancellation of permits.**

Each permit issued under [section 455B.265](#) is irrevocable for its term and for any extension of its term except as follows:

2. Subject to appeal to the department of inspections and appeals, a permit may be modified or canceled by the director if any of the following occur:

a. There is a breach of the terms of the permit.

b. There is a violation of the law pertaining to the permit by the permittee or the permittee’s agents.

c. There is a circumstance of nonuse as provided in [section 455B.272](#).

d. The department finds that modification or cancellation is necessary to protect the public health or safety,

This section only allows challenges by the Department, not by the public. Under what circumstances is the Department required to act when notified by the public? Does “violation of the law” include deception about neighboring wells or misrepresenting water consumption needs, i.e., the magnitude of the water use?

#### **455B.278 Permit application procedures.**

1. The commission shall adopt, modify, or repeal rules establishing procedures by which permits required under this part shall be issued, suspended, revoked, modified, or denied. The rules shall

include provisions for application, public notice and opportunity for public hearing, and contested cases. Public notice of a decision by the director to issue a permit shall be given in a manner designed to inform persons who may be adversely affected by the permitted project or activity.

This states that rules shall include provisions for a public hearing, as well as public notice. I did not find that language in the rules pertaining to public hearings. A public hearing could help us shape the discussion about “beneficial uses”, what is “pollution”, what constitutes “public health or welfare”.

#### **455B.281 Compensation for well interference.**

1. If an investigation by the department, using information provided by the applicant or permittee and the complainant, discloses that a proposed or existing permitted use or combination of such uses is causing or will cause the delivery system to fail in a well which supplies water for a nonregulated use, the department may condition issuance or continuation of a permit upon payment by the permittee of compensation for all or a portion of the cost of a replacement water supply system or remedial measures necessitated by the interference.

This allows the well interference argument to be made BEFORE the interference occurs.

#### **455B.273 Disposal of permit.**

A permittee may sell, transfer, or assign a permit by conveying, leasing, or otherwise transferring the ownership of the land described in the permit, but the permit does not constitute ownership or absolute rights of use of the waters. The waters remain subject to the principle of beneficial use and the orders of the director or commission.

The “transfer” form is the same form as the original permit application form but must be submitted with an attached explanation for the permit modification or transfer. Because it is the same form, I believe it should have triggered a public notice and public comment process, but that’s not how the rules seem to be interpreted.

#### **455B.275 Prohibited acts — powers of commission and executive director.**

1. A person shall not permit, erect, use, or maintain a structure, dam, obstruction, deposit, or excavation in or on a floodway or floodplains, which will adversely affect the efficiency of or unduly restrict the capacity of the floodway, or adversely affect the control, development, protection, allocation, or utilization of the water resources of the state, and the same are declared to be public nuisances.

This is meant to protect floodways and the normal flow of water during flood events. The earthen basin was constructed in and obstructs a FEMA designated floodway. The damming effect of the basin and other structures will cause substantially more floodwaters to flow directly into the five sinkholes located in the NW wooded area of the property. This is inconsistent with the protection of the water resources of the state. Adherence with this statute is not limited by rules for floodway construction permits that impose a watershed area threshold. Those thresholds are applied irrespective of the potential for the obstruction to adversely affect protection of the water resources of the state and are insufficient to meet the requirements encompassed by the statute.