



IOWA DEPARTMENT OF NATURAL RESOURCES

Leading Iowans in Caring For Our Natural Resources

# **Antidegradation: Tier 2 ½ Outstanding Iowa Waters**

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# Outline

- Antidegradation Tiers
- Outstanding Iowa Waters (OIWs)/Tier 2.5 in Iowa
- History: How OIWs Were Chosen
- Nomination process
- Current Implementation



# Water Quality Standards

## **DESIGNATED USES:**

Water quality goals for surface water



## **WATER QUALITY CRITERIA:**

Levels of water quality that will support designated uses; expressed as numeric values and/or narrative statements

## **ANTIDEGRADATION:**

Framework for maintaining and protecting water quality that has already been achieved

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Framework for maintaining and protecting water quality that has already been achieved



# **Iowa's Antidegradation Tiers**

# Antidegradation Tiers

- a. Tier 1 protection
- b. Tier 2 protection
- c. Tier 2 ½ protection -  
Outstanding Iowa Waters
- d. Tier 3 protection -  
Outstanding National  
Resource Waters



# Tier 1 Protection

- Ch. 61: “*Existing surface water uses and level of water quality necessary to protect existing uses will be maintained and protected.*”
- Can increase pollutant concentration up to the water quality standard.





# Tier 2 Protection

- Ch. 61: *“Where the quality of the waters exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected, unless...allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located.”*
- Existing uses are still protected
- Maintain existing water quality
  - Concentration of pollutants are substantially below the water quality limit needed to protect the use.

# Tier 2 ½: Outstanding Iowa Waters

- Ch. 61: *“Where high quality waters constitute an outstanding state resource, such as waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.”*
- Affords more protection than Tier 2
- Allows flexibility not afforded in Tier 3
- Water body-by-water body approach, not pollutant-by-pollutant

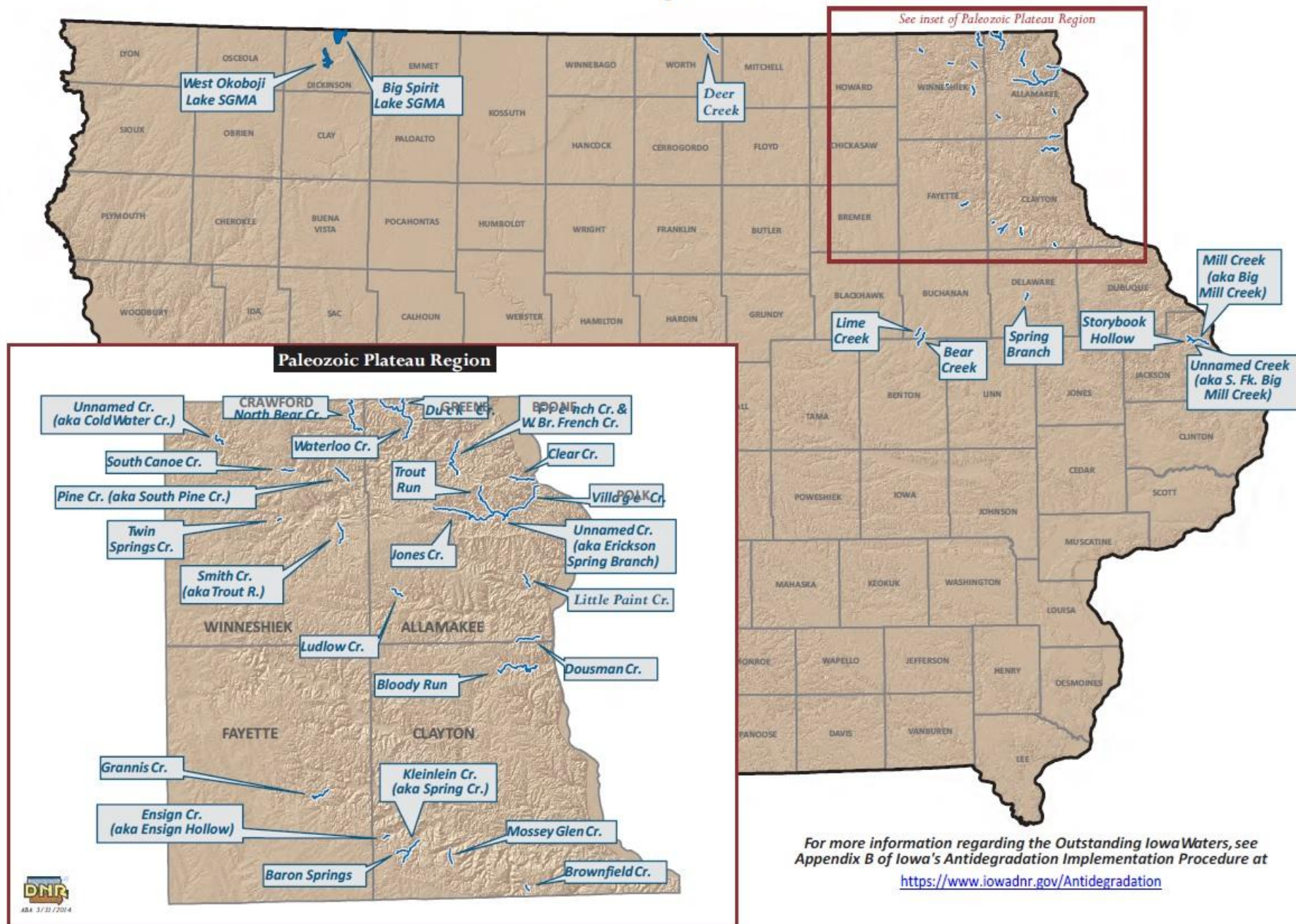
# Tier 3: Outstanding National Resource Waters

- Ch. 61: *“Where high quality waters constitute an outstanding national resource, such as waters of national and state parks and wildlife refuges and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected. Any proposed activity that would result in a permanent new or expanded source of pollutants in an outstanding national resource water is prohibited.”*
- No ONRWs currently in Iowa



# Outstanding Iowa Waters

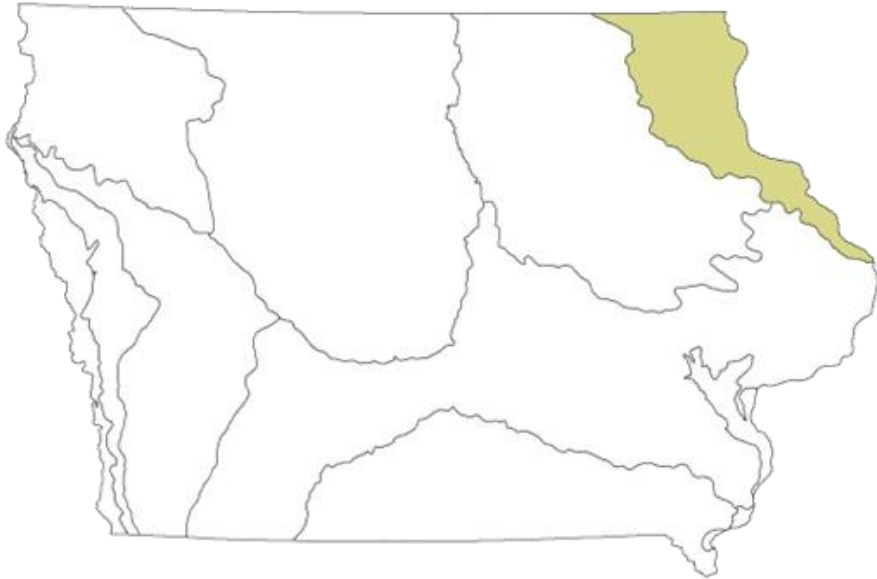
# Outstanding Iowa Waters





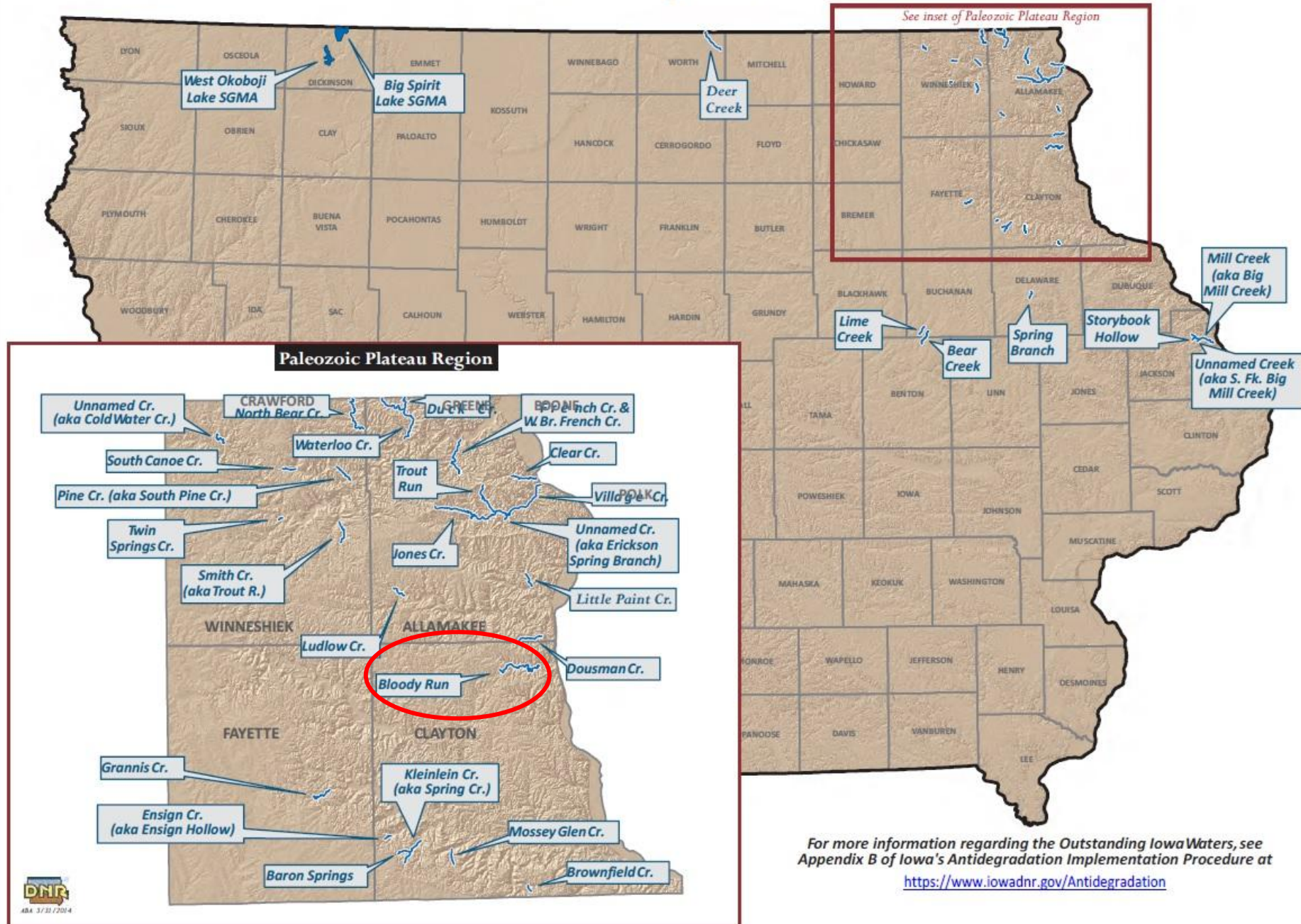
# Northeast Iowa

- Driftless Area
- Karst topography
  - Springs
  - Sinkholes
  - Losing streams
  - Hatcheries





# Outstanding Iowa Waters



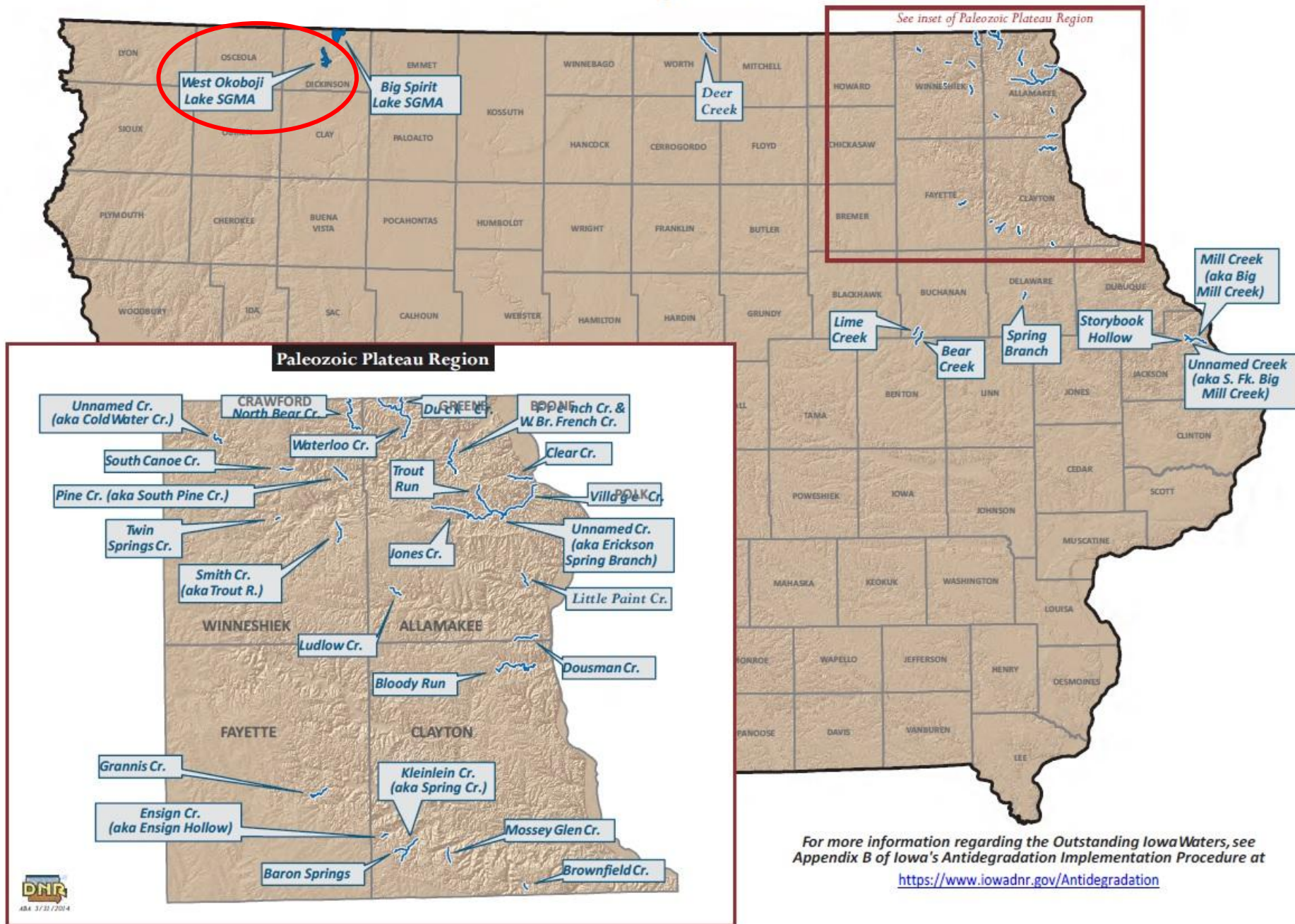


# **Bloody Run - Clayton County**



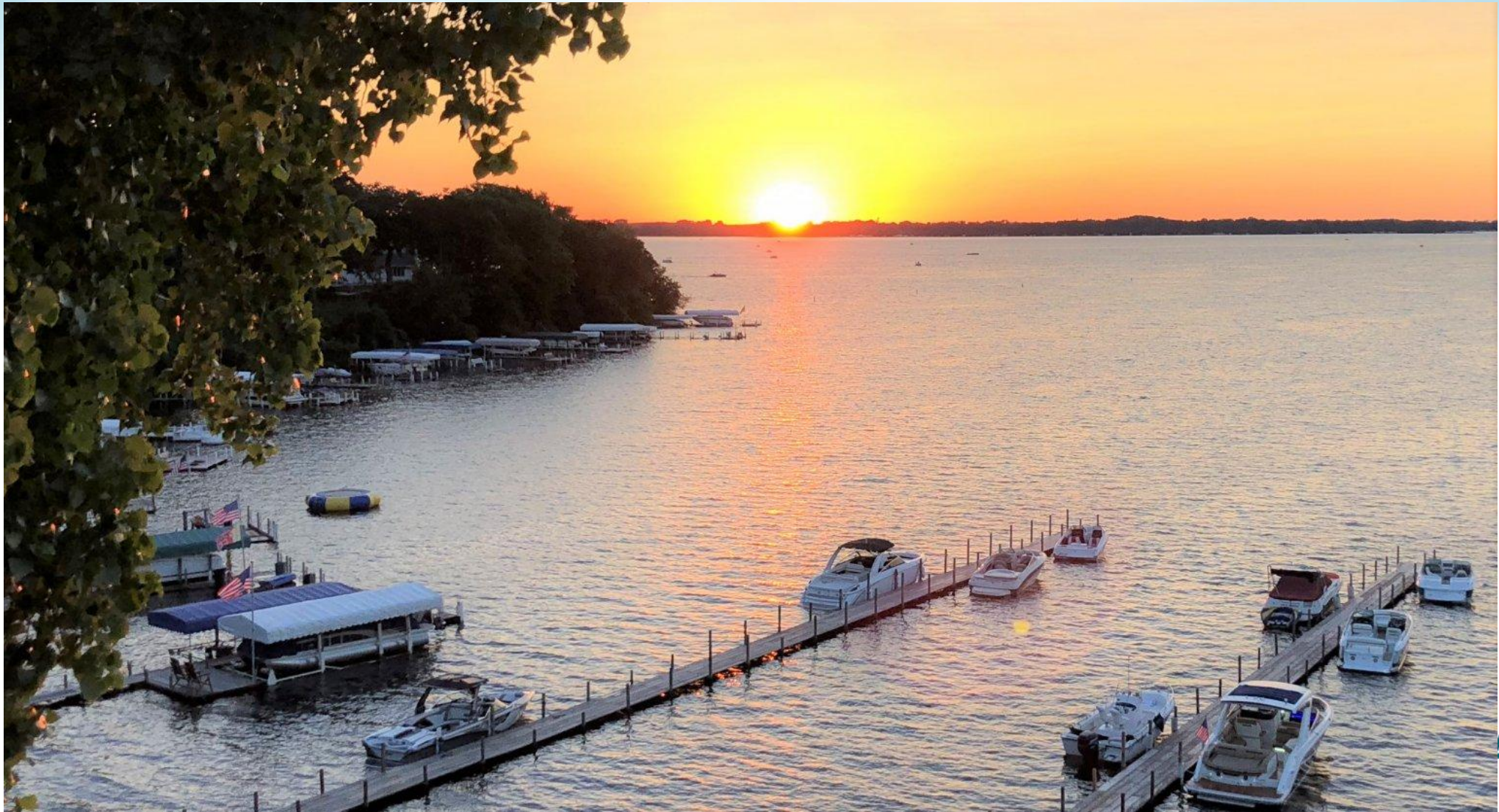


## Outstanding Iowa Waters



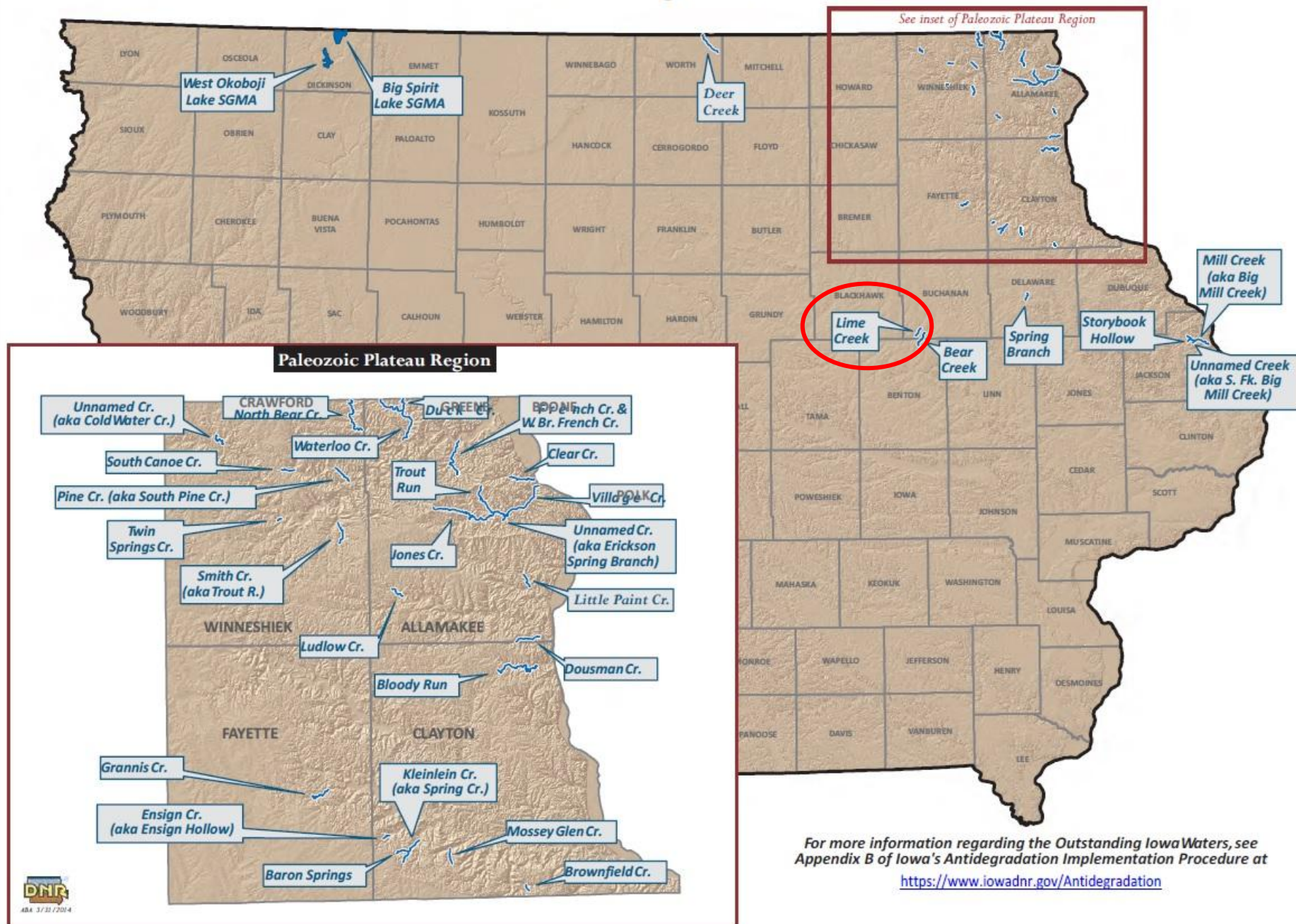


# West Okoboji Lake - Dickinson County





# Outstanding Iowa Waters





# Lime Creek - Buchanan County



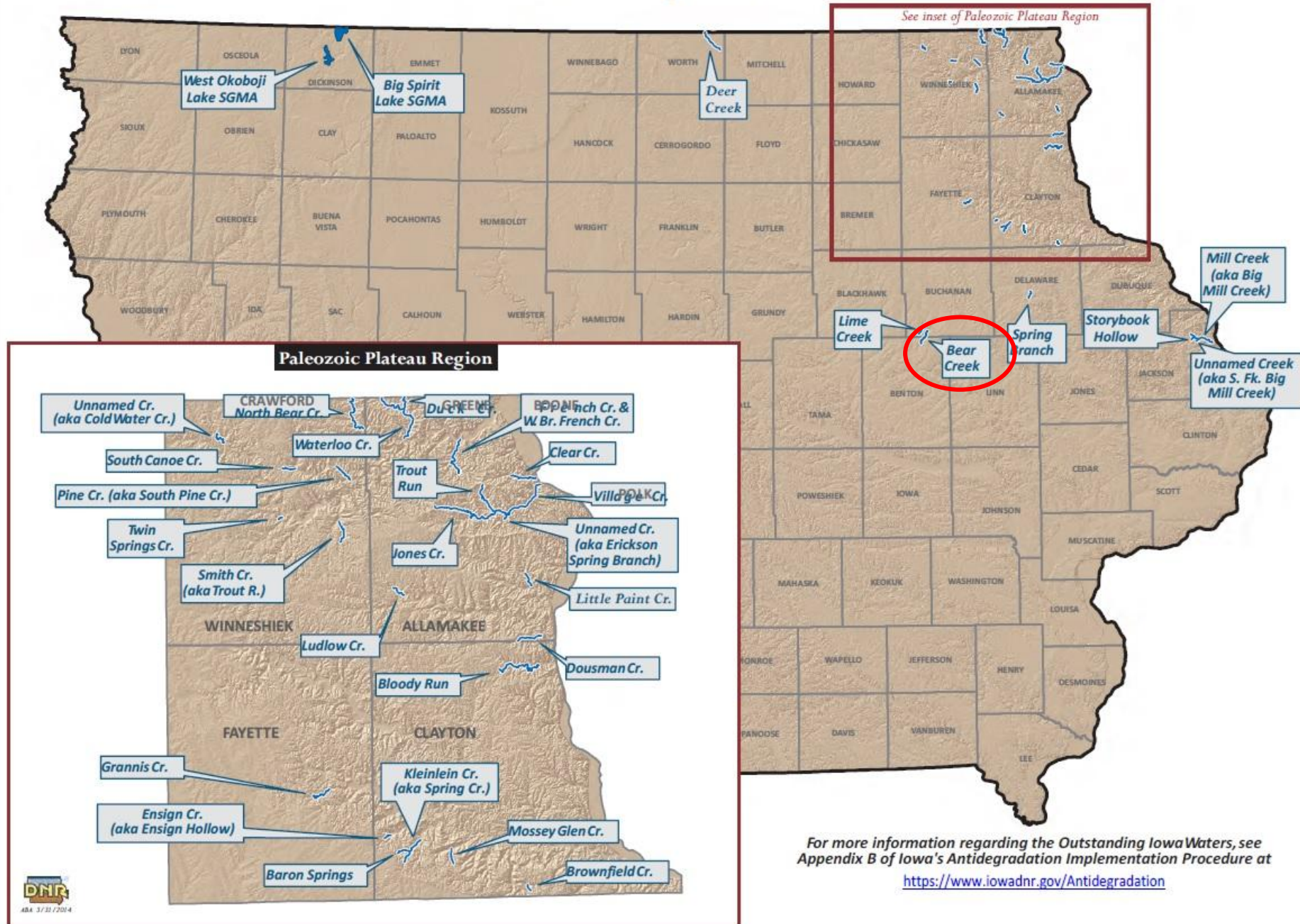


# Lime Creek - Buchanan County





# Outstanding Iowa Waters

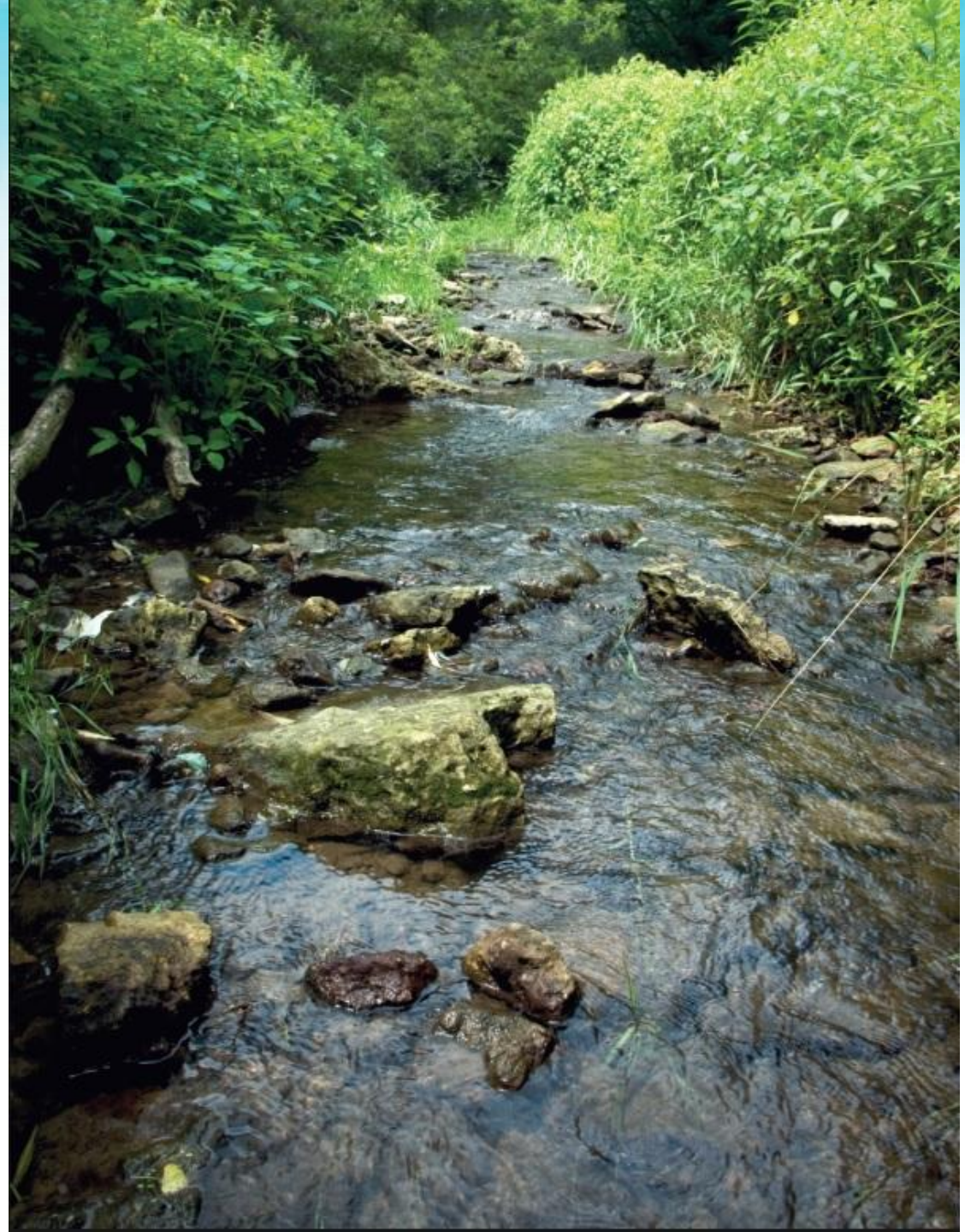




# **Bear Creek**

-

## **Benton/Buchanan Counties**





# **Bear Creek - Benton/Buchanan Counties**



# OIW Selection/Nomination



# How OIWs were chosen

- Historical selection process
  - Highest water quality and ecological importance.
  - Initial classification of OIWs were strategic to not include any existing municipal or industrial WWTPs to help prevent implementation issues.
- Current nomination process
  - Process on next slides
  - Pickerel Run / Drainage Ditch 37 request in 2021





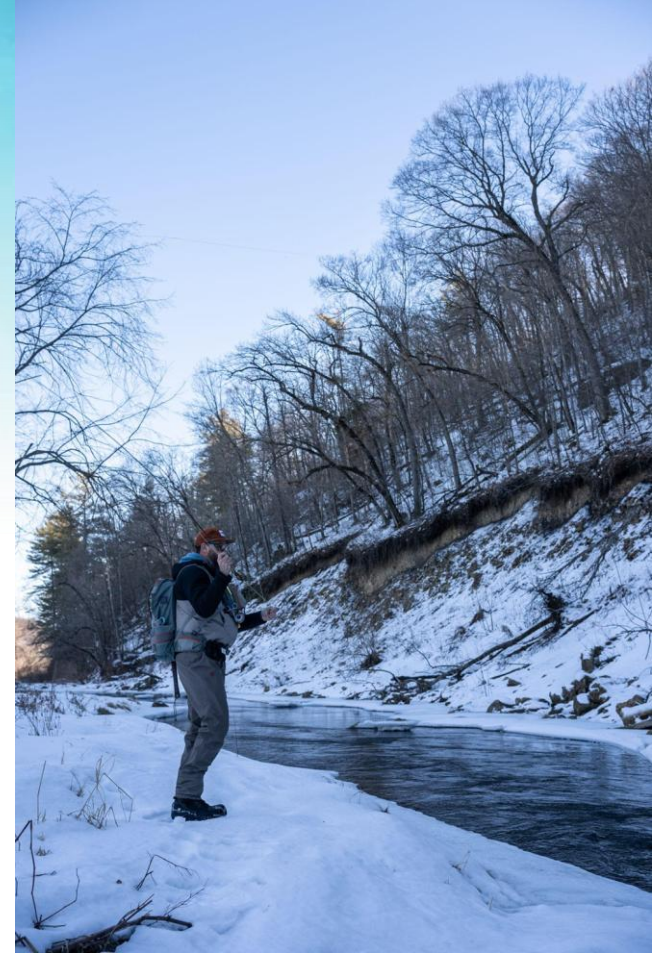
# Nomination Process

- Nominations must include:
  - Map and description
  - Statement in support
  - Supporting evidence
  - Relevant water quality data
- Water body may be an OIW or ONRW based on:
  - Location
  - Exceptional water quality or ecological or recreational significance
  - Presence of threatened or endangered species



# Nomination Process, cont.

- Next, the DNR considers the following factors:
  - Can the surface water be effectively managed to protect existing water quality
  - Social and economic impact
  - Public comments
  - Timing of the nomination
  - Consistency of classification with applicable WQMPs
  - Location
- More information is needed when classifying an ONRW
- Public meeting in the local area of the water body
- Rulemaking





# **When Antideg Does/ Does Not Apply**

# 401 Water Quality Certification

- Temporary & limited antideg review
- Fulfilling terms and conditions of 404 permits and 401 certs means antideg requirements have been fulfilled.
- 401 certification is only issued where degradation is necessary to accommodate social or economic development.





# 402 NPDES Permit Amendments/Renewals

## Antideg applies with:

- a request for less stringent permit limits.
- a request to incorporate new pollutants of concern (POCs).
- a change in outfall location.

## Antideg does NOT apply with changes to:

- compliance schedule date.
- a permittee name.
- monitoring requirements.
- loadings to a treatment facility\*.
- chemical additives if no new POCs.

\*for pollutants that are within the design capacity of the facility

# Construction Permits

## Antideg applies with:

- any increase in design capacity.
- any change in design that will result in less stringent NPDES permit limits.
- new dischargers with POCs that require a construction permit.

## Antideg does NOT apply with:

- any decrease in design capacity AND equally or more stringent NPDES permit limits for any POC.
- unsewered communities.
- CSO improvements.



# CAFOs



- CAFOs must comply with antideg when applying for or renewing a NPDES permit ONLY if it's for a new or expanded discharge.
  - Only applies to CWA regulated open lot CAFOs.
- What qualifies as degradation
  - Adding more animals
  - Increasing the size of the feeding areas
  - Increasing the size of the manure areas

# **OIW Discharges / Tier 2 ½ Review**



# Discharges to OIWs



- All new or expanded regulated activities are subject to antidegradation review requirements, pursuant to:
  - Section 401 Water Quality Certification
  - Section 402 NPDES Permits
  - Section 404 Dredge and Fill Permits
- Iowa allows discharges to OIWs in limited circumstances.
  - Temporary and limited degradation
  - Social and economic importance



# Data Requirements for Discharges

- Survey question: what are the minimum data requirements to determine if an NPDES permit discharge would protect water quality?
- It depends....





# Tier 2 ½ / 3 Antideg Review

- Alternatives analysis (AA) or temporary and limited (T&L)
- The preferred pollution control alternative should be the least degrading alternative that is:
  - practicable,
  - economically efficient,
  - and affordable.
- Determine existing water quality to determine percent change in ambient conditions that may result from potential degradation



# Summary



- Tier 2 ½ waters can only have temporary and limited degradation that allows for important social or economic development.
- OIWs include naturally reproducing trout streams and high quality warmwater streams in NE Iowa and two of Iowa's Great Lakes.
- If a permittee follows requirements for 402 and 404 permits and 401 certifications, the antidegradation requirements are considered to be met.



# Thank you!

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*Iowa's Antidegradation Implementation Procedure (AIP) and supporting documents can be found at:*

<https://www.iowadnr.gov/environmental-protection/water-quality/water-quality-standards/antidegradation>