

Even Beer & Cheese Needs Water During Drought

Water Withdrawals & Drought:
The Ultimate Oxymoron

Why Withdraw Water?



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The Ultimate Oxymoron

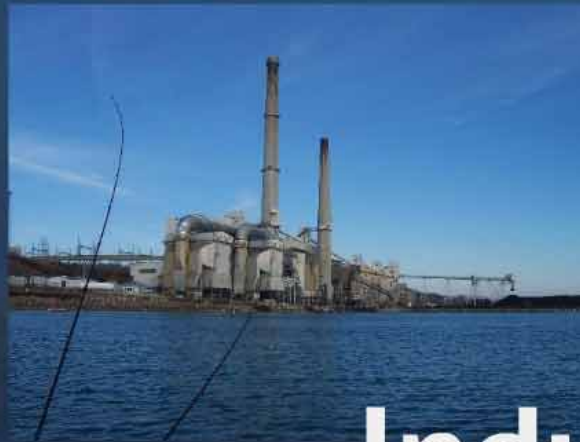
Withdraw Water?



Why Withdraw Water?



Municipal



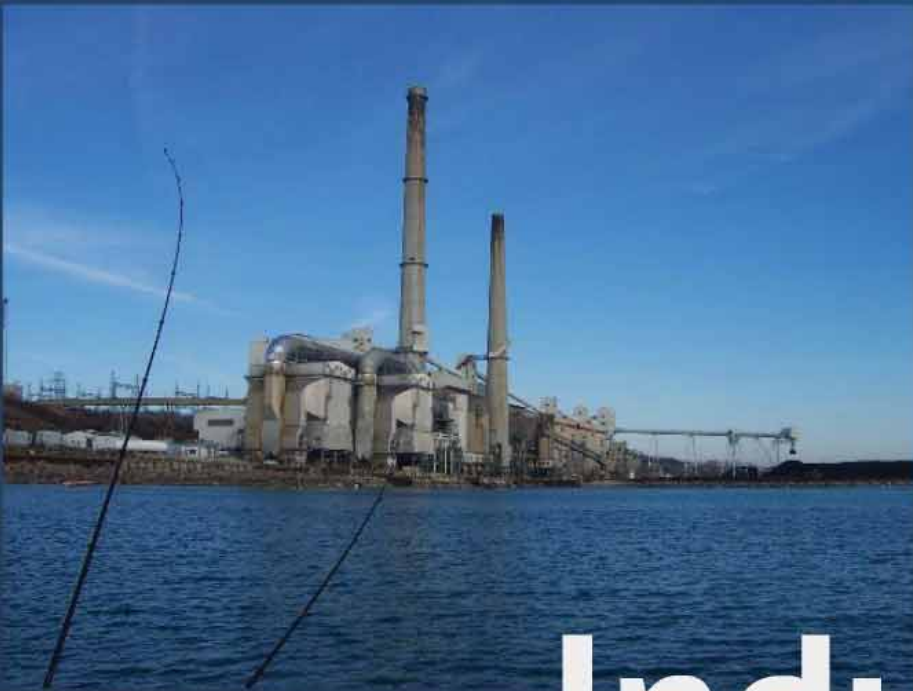
Industrial





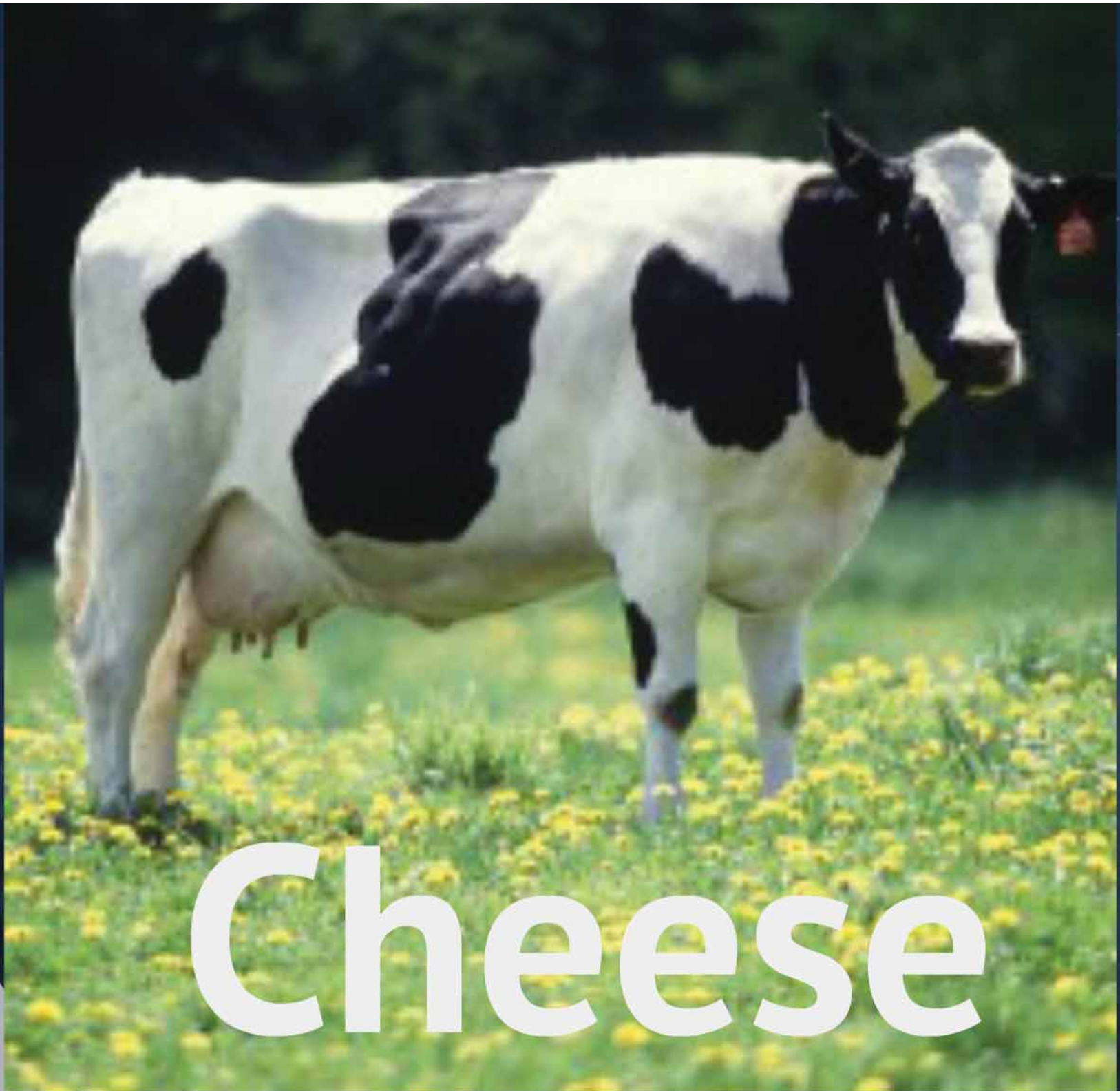
Municipal

Withdraw Water?

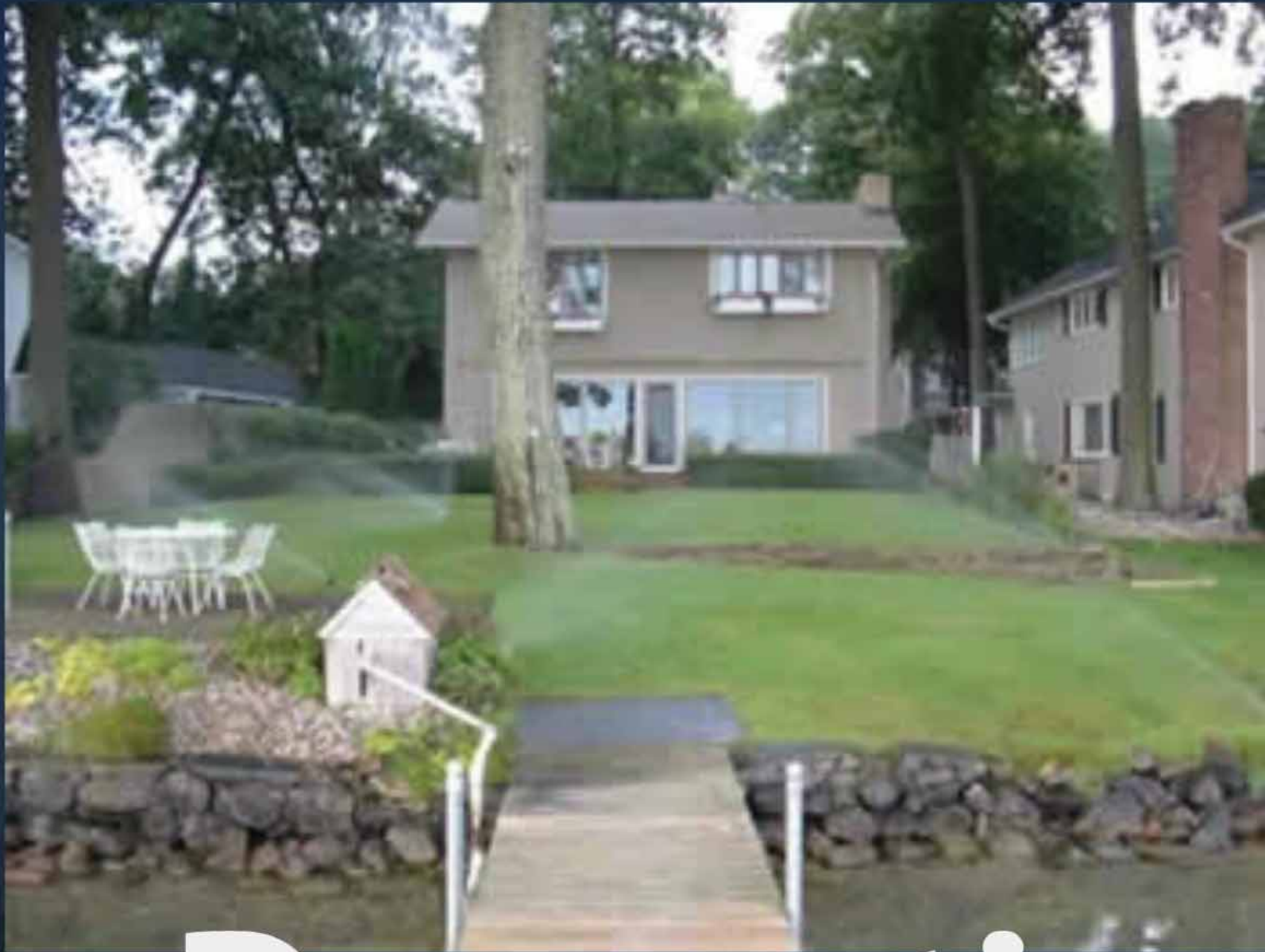


Industrial





Cheese



Domestic

B



Beer

Public Trust Doctrine

statae

responsibility

protect navigable waters

for everyone!

Fish and wildlife habitat

Recreation

Natural scenic beauty

Water quality

Jurisdiction

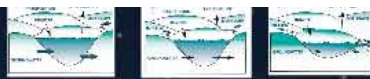
30.18 Wis Stats

Streams



purpose

Main



Withdrawal from lake that reduces the flow of the stream is a withdrawal from the stream

urpose

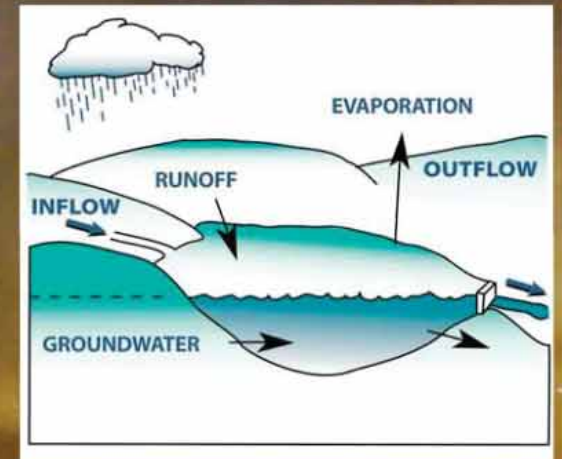
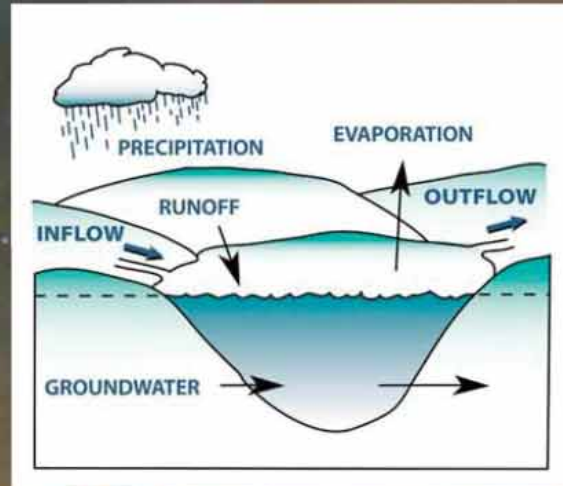
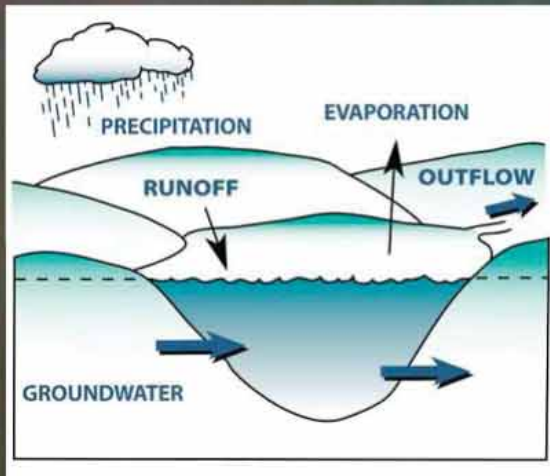
Maintaining the normal flow of a stream

Maintaining the normal level of a lake

Agriculture

Irrigation

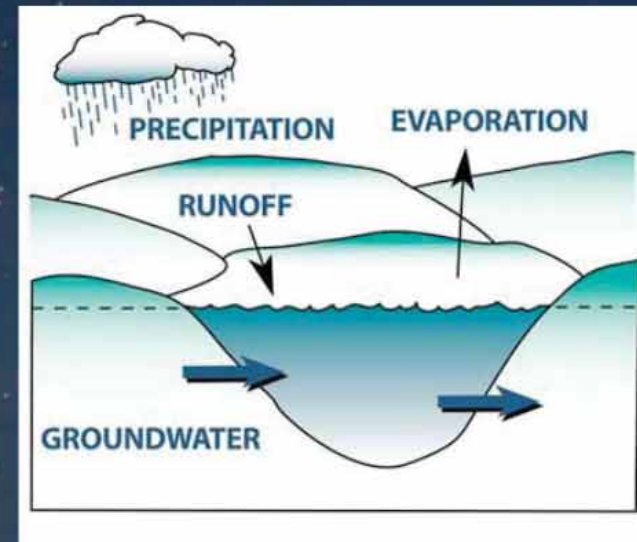
A lake WITH an outlet?



Withdrawal from lake that reduces the flow of the stream is a withdrawal from the stream

Streams & Lakes

seepage lake no outlet



volume

water loss average 2 million gpd over 30 days

- **Withdrawals can only be granted to riparian owners**
- **The withdrawal cannot harm public rights**
- **Must have consent of downstream users!**

- With
- gran
- The
- publ
- Must
- dow

Approve or Deny?

Goal: meet the needs of navigation, fish and wildlife, water-based recreation, aesthetic enjoyment, water quality

Need to Know:

Location (withdrawal and area irrigated)

Timing (when start and end)

Acres irrigated

How many times a year (max)

How much per event

Withdrawal rate

Type of pumping system

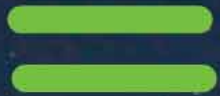


Resource Considerations:
Establish a "public rights stage"?
a seasonal flow regime?

in per event
al rate
umping system



Establish a "public ri
a seasonal flow regim



Decision

(backed up by Q₇₋₂ (if known),
current levels, seasonal average
level, HSI curves (if known))

Unregulated Withdrawals (gaps)

*Water use registration thresholds & Great Lakes Compact ;
Existence of water level/flow order or Public Rights Stage
allows regulation of some withdrawals*



Fish Farms

Related Withdrawals

*Water use registration thresholds & Great Lakes Compact ;
Existence of water level/flow order or Public Rights Stage
allows regulation of some withdrawals*





Roadway Stream Crossing



Seepage Lake

(under volume threshold)



Fish Farms

(not defined as Agriculture)



Industrial Intake



Intake



Indu

Cranberry Operations

(exempt in statute ss. 94.26)



Municipal Intake

Municipal Intake

Industrial Intake

Cranberry Operations
(except in states 11, 14, 21)

Drought Declaration

Emergency

Executive Order

Can set location, rate, hours, and
frequency of withdrawal within a

Agricultural Irrigation

No Public Input

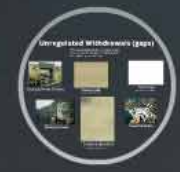
Permits expire with order

Onsite within 3 days

Can set location, rate, hours, and frequency of withdrawal within a specified time period

Able to modify, deny or rescind permit if causing adverse environmental effects





Drought Declaration

Emergency

Executive Order

Agricultural Irrigation
No Public Input
Permits expire with a
Drought within 3 days

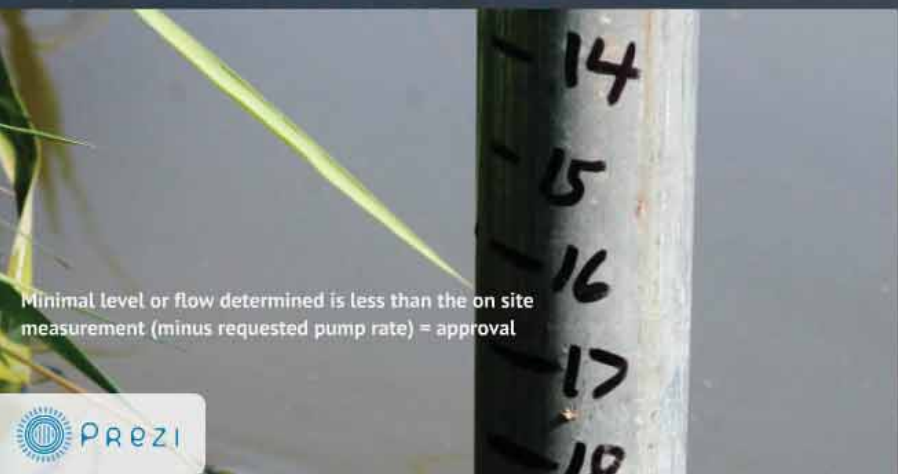
Can set location, rate, hours, and frequency of withdrawal within a specified time period

Able to modify, deny or rescind permit if causing adverse environmental effects



Approve or Deny?

No Public Decision



Minimal level or flow determined is less than the on site measurement (minus requested pump rate) = approval



Check gauging data to assess b
Current range of flow is needed
pumpage rate.



No Public Rights Stage

Decision based on Biological, Habitat, and Water Quality

assess baseline flow/water volume
is needed to compare to the requested

✓ Check gauging data to assess baseline flow/water volume
Current range of flow is needed to compare to the requested pumpage rate.

✓ Has a PRS, or minimum level or flow, Q7-2, Q7-10 etc been established?

✓ Has a Aquatic habitat survey identified a snapshot water level?

✓ Waterbody special designations? (e.g. trout stream, ORW/ERW, mapped sensitive area)

✓ Is current water level is suitable for target species, or species of concern?

✓ Does a water control structure have orders setting a water level or flow?



Preliminary determination on minimum level or flow resource can handle.



Minimal level or flow determined is less than the on site measurement (minus requested pump rate) = approval

Minimal level or flow determined is greater than the on site measurement (minus requested pumpage rate) = denial or modification

Site Visit

✓ Check g
Current
pump

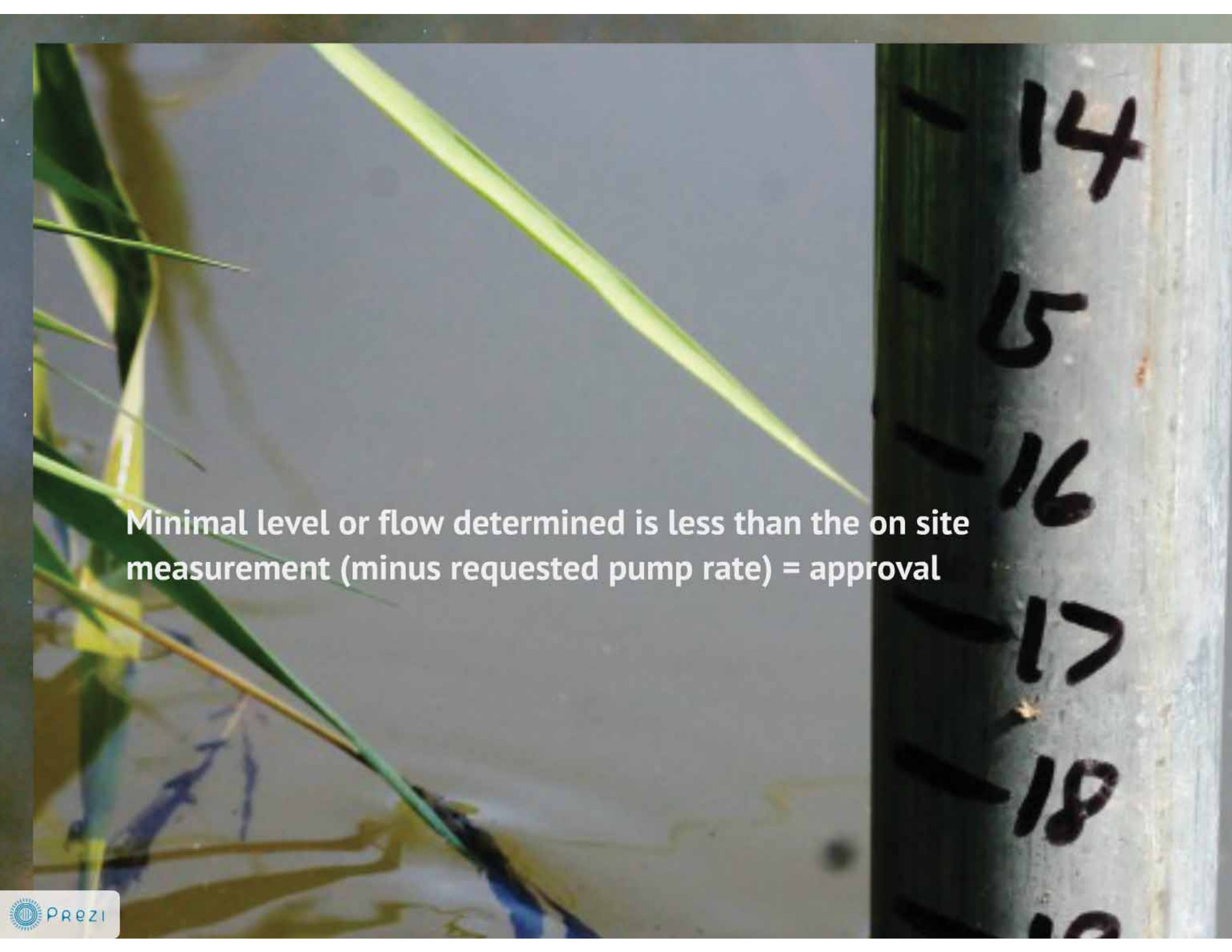
✓ Has a P

✓ Has a A

✓ Waterb
mapped

✓ Is curre

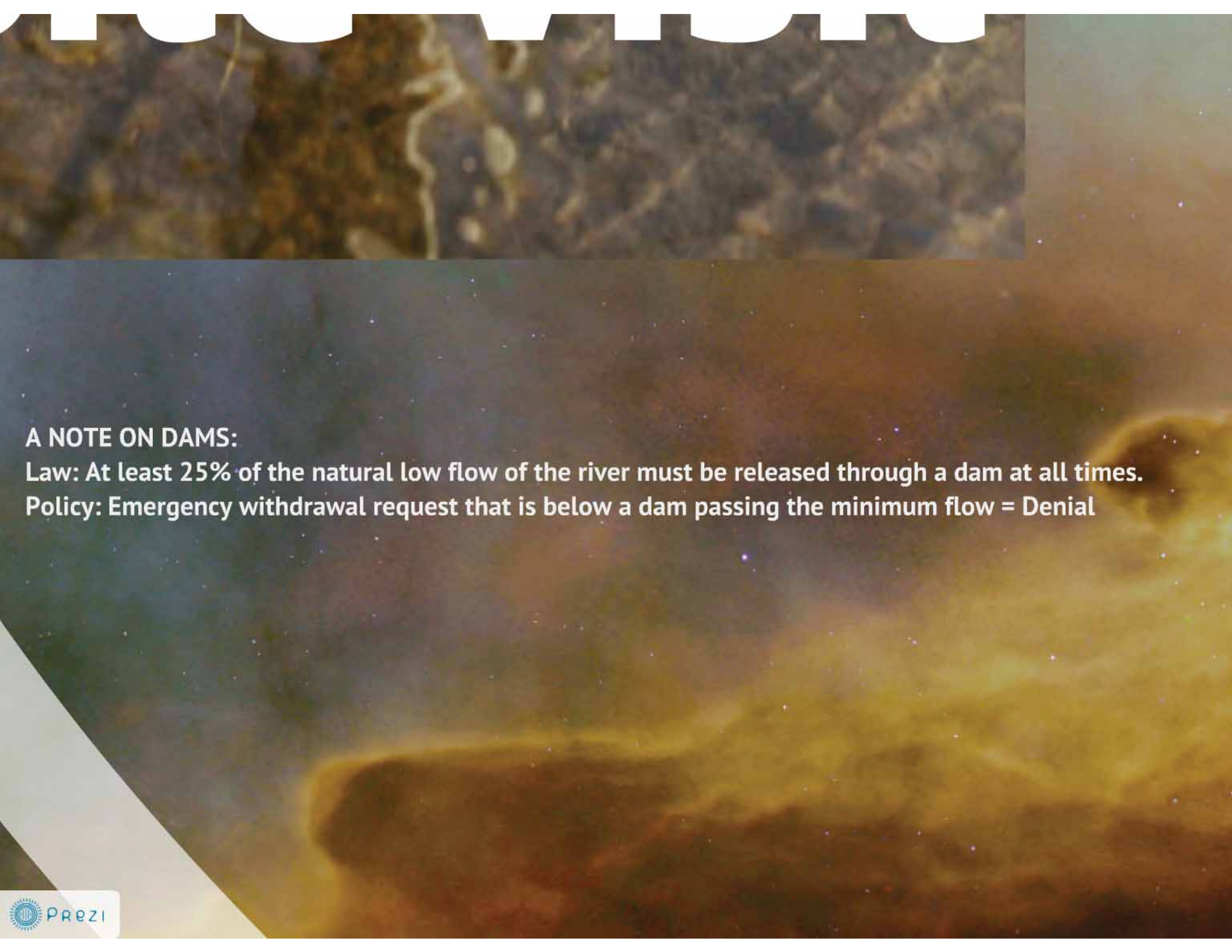
✓ Does a



Minimal level or flow determined is less than the on site measurement (minus requested pump rate) = approval



Minimal level or flow determined is greater than the on site measurement (minus requested pumpage rate) = denial or modification

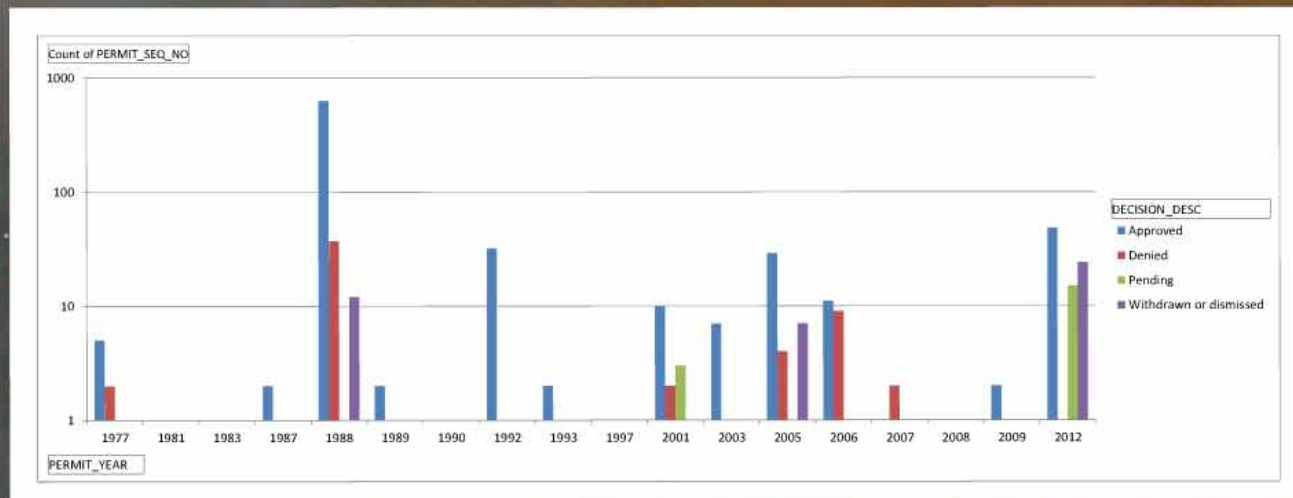


A NOTE ON DAMS:

Law: At least 25% of the natural low flow of the river must be released through a dam at all times.

Policy: Emergency withdrawal request that is below a dam passing the minimum flow = Denial

History



DECISION_DESC

■ Approved

■ Denied

■ Pending

■ Withdrawn or dismissed

Count of PERMIT_SEQ_NO

1000

100

10

1

1977

1981

1983

1987

1988

1989

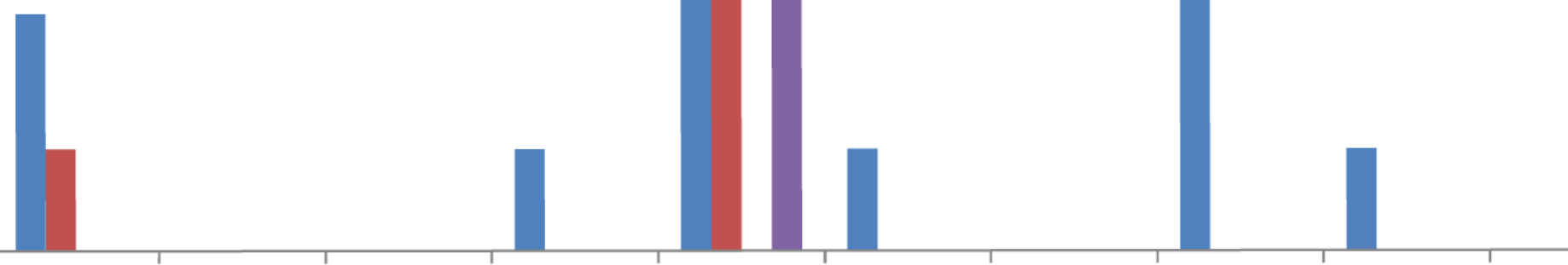
1990

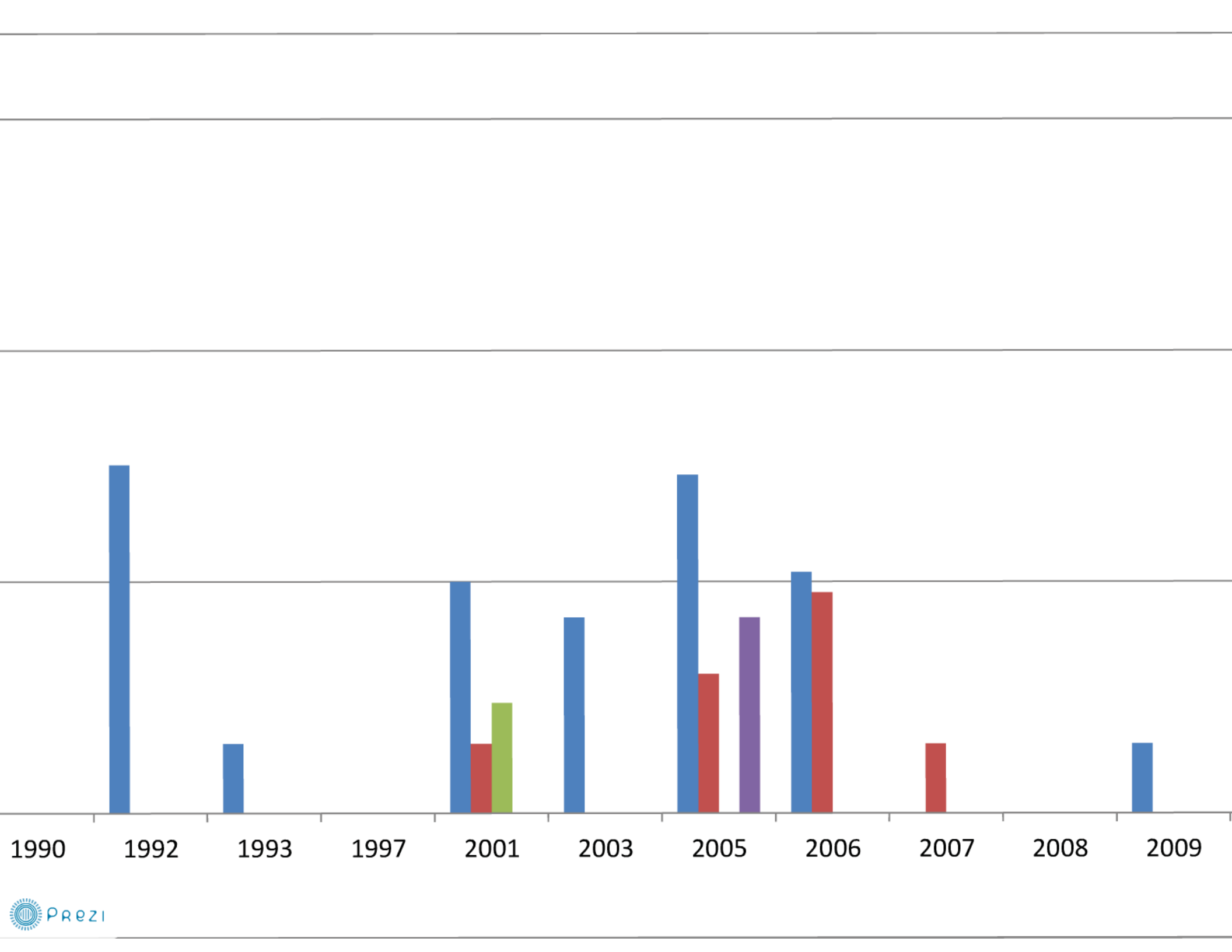
1992

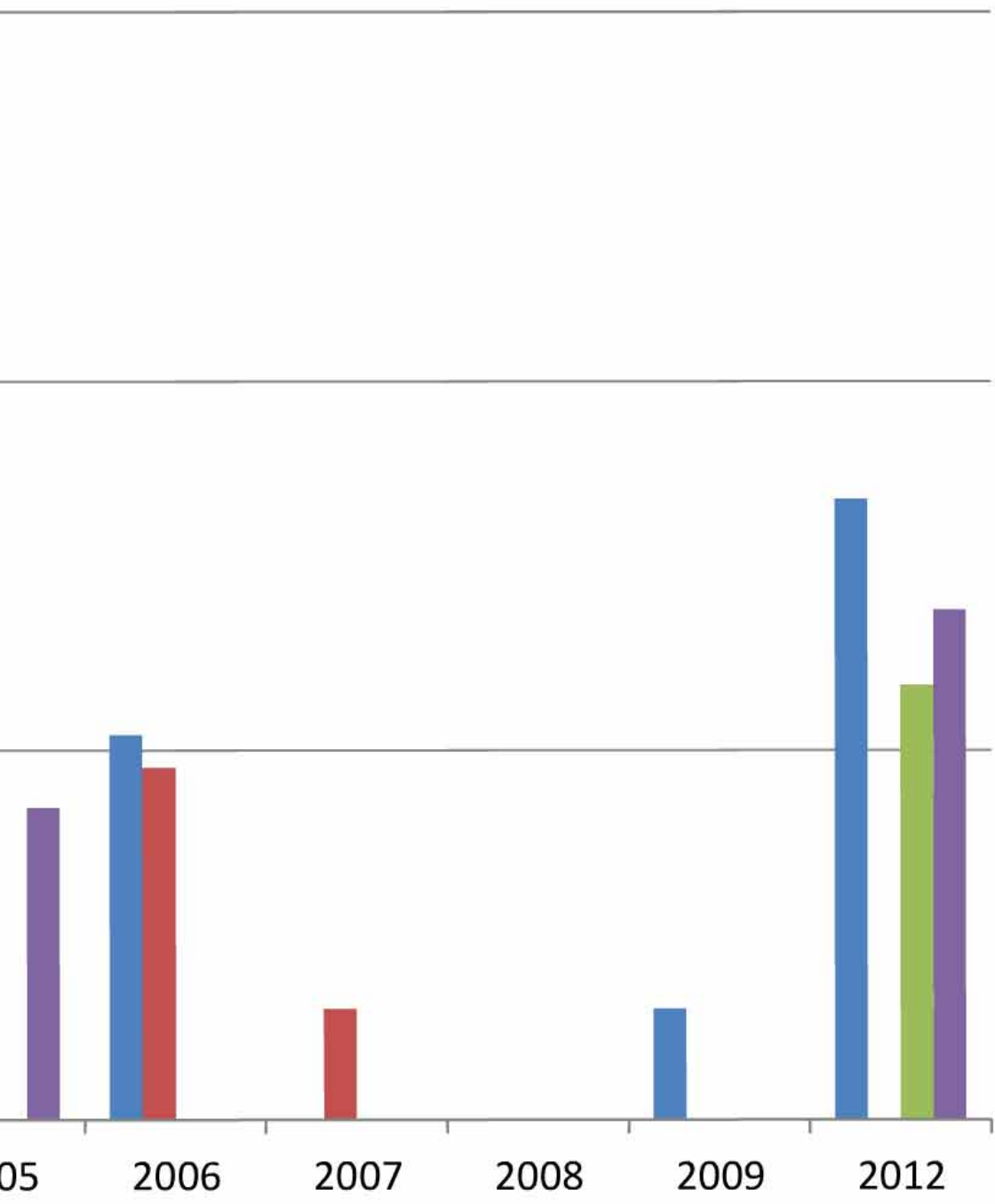
1993

19

PERMIT_YEAR



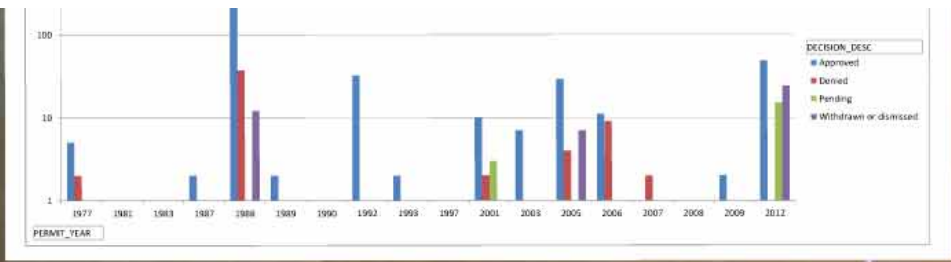




DECISION_DESC

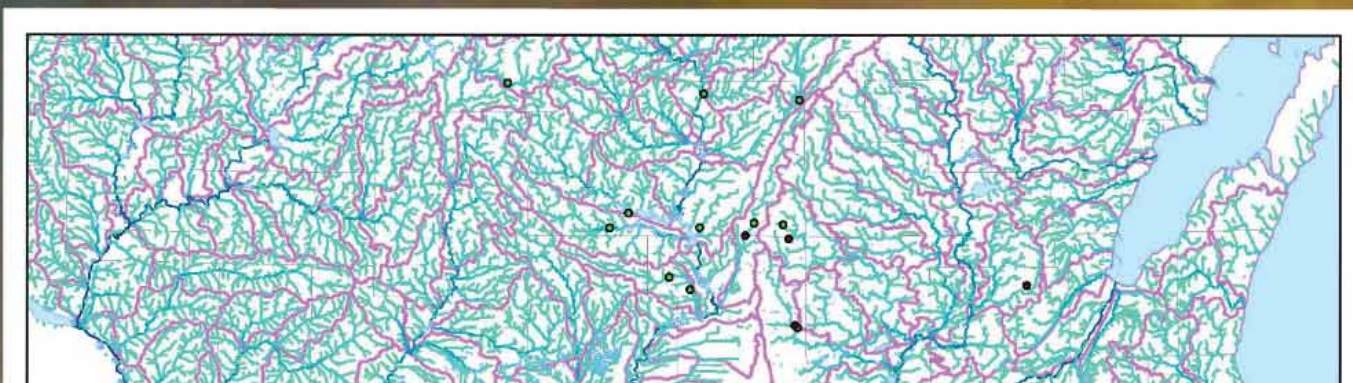
- Approved
- Denied
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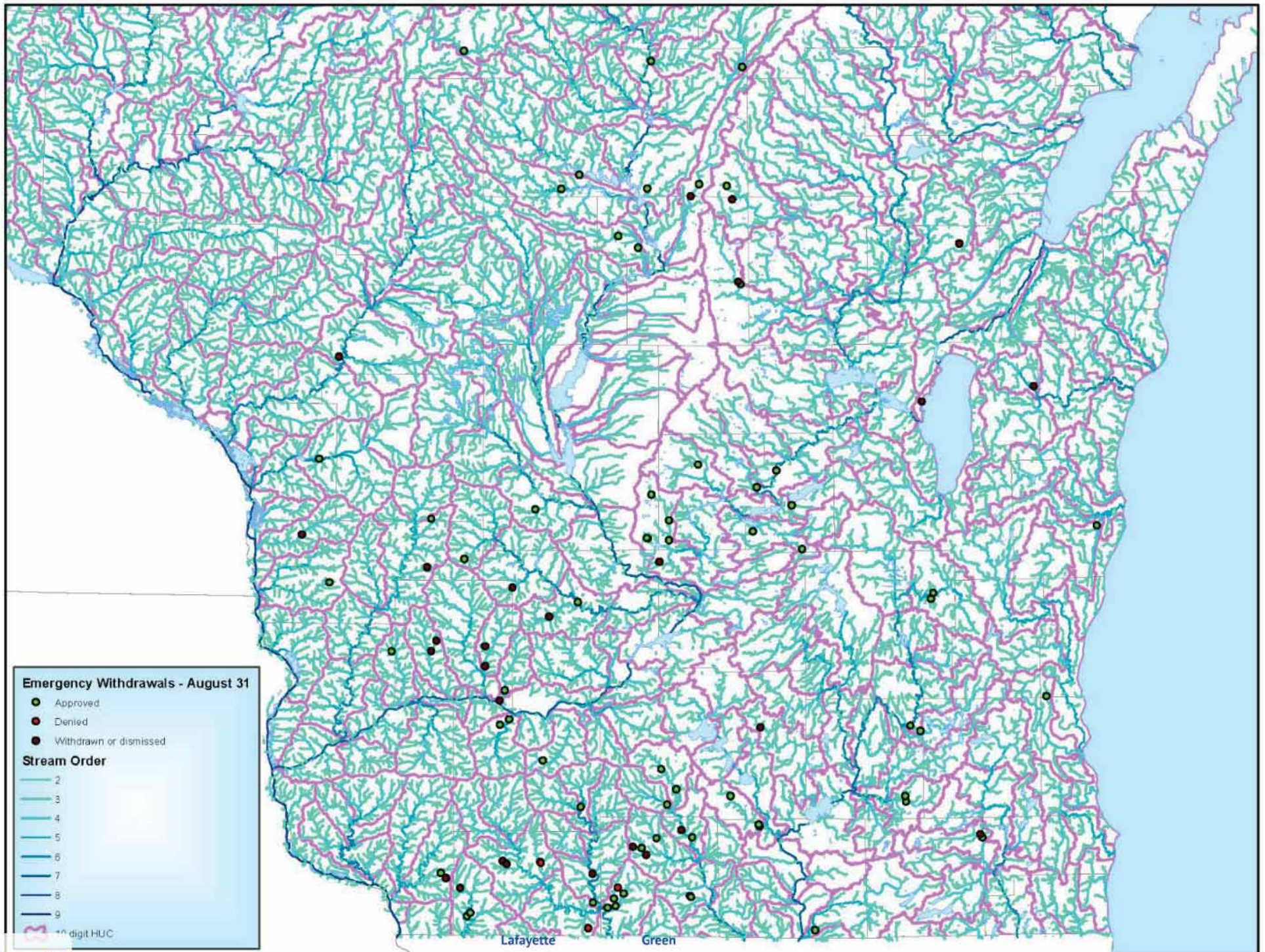







Summer of '12

Drought Data





Emergency Withdrawals - August 31

-  Approved
-  Denied
-  Withdrawn or dismissed

Stream Order

 2

 3

 4

 5

 6

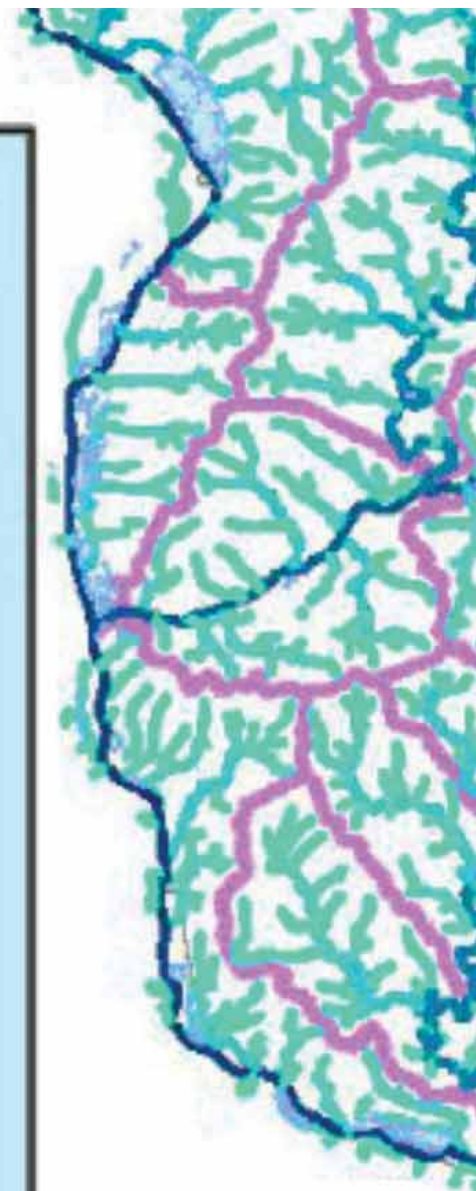
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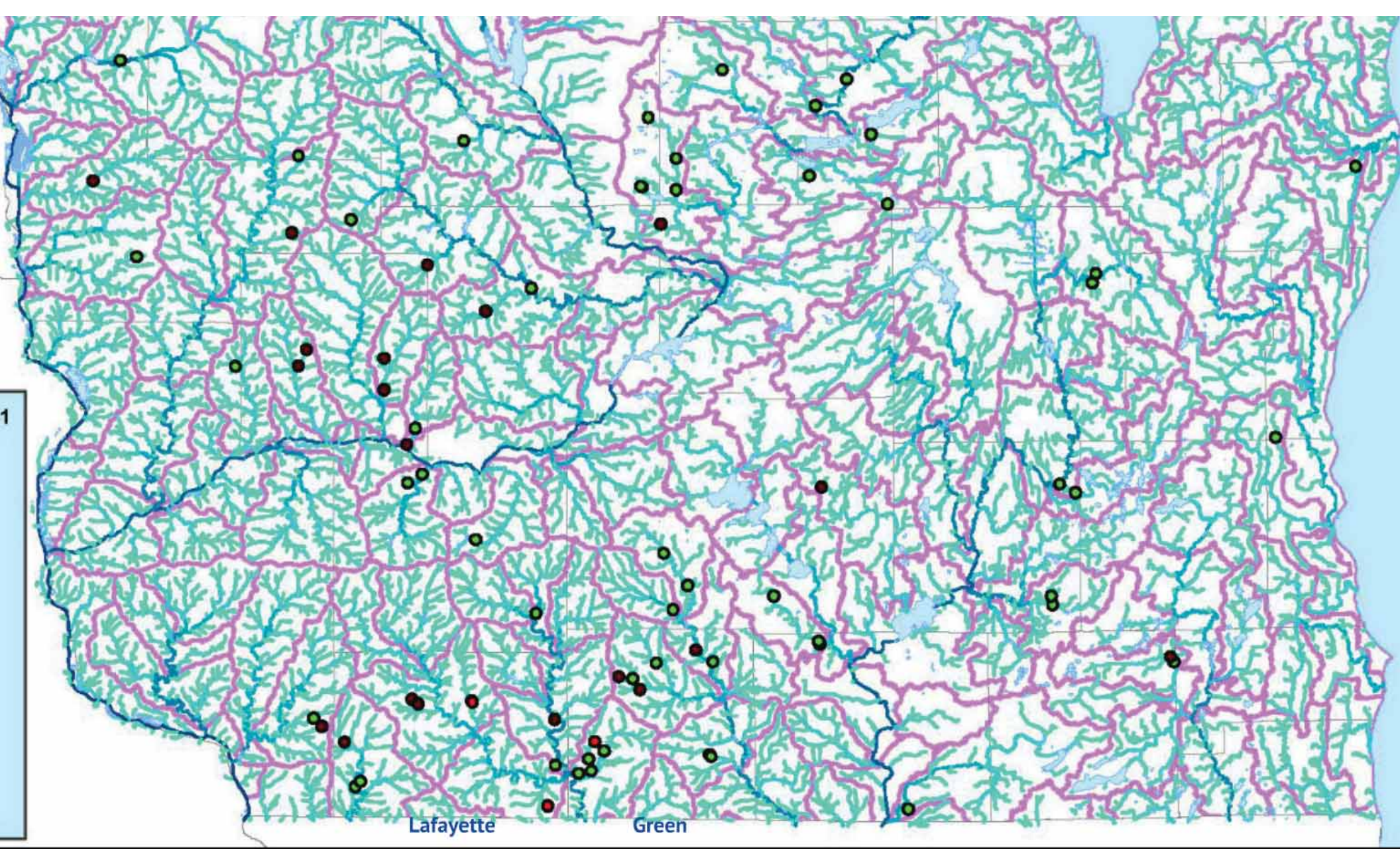
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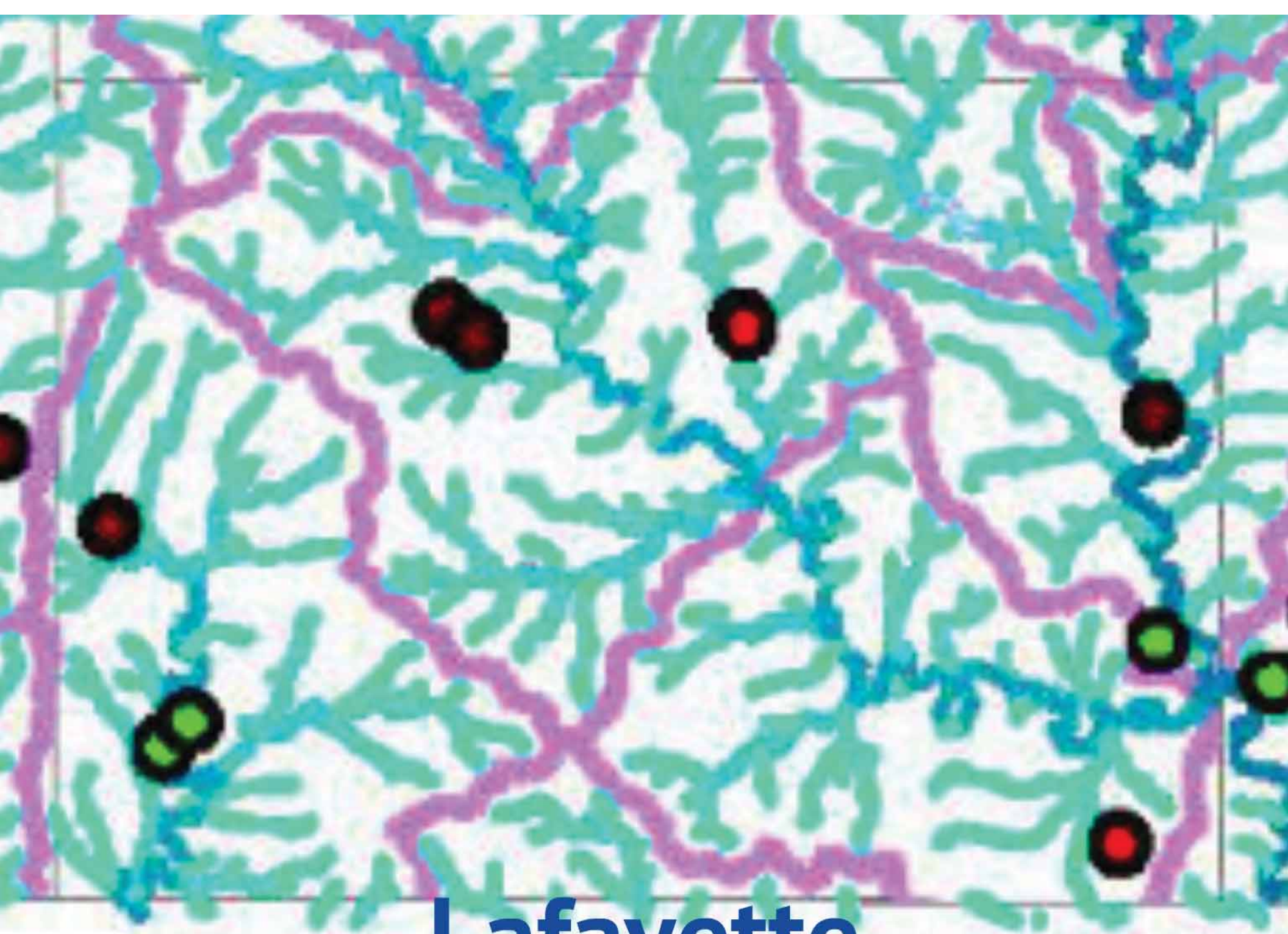
 9



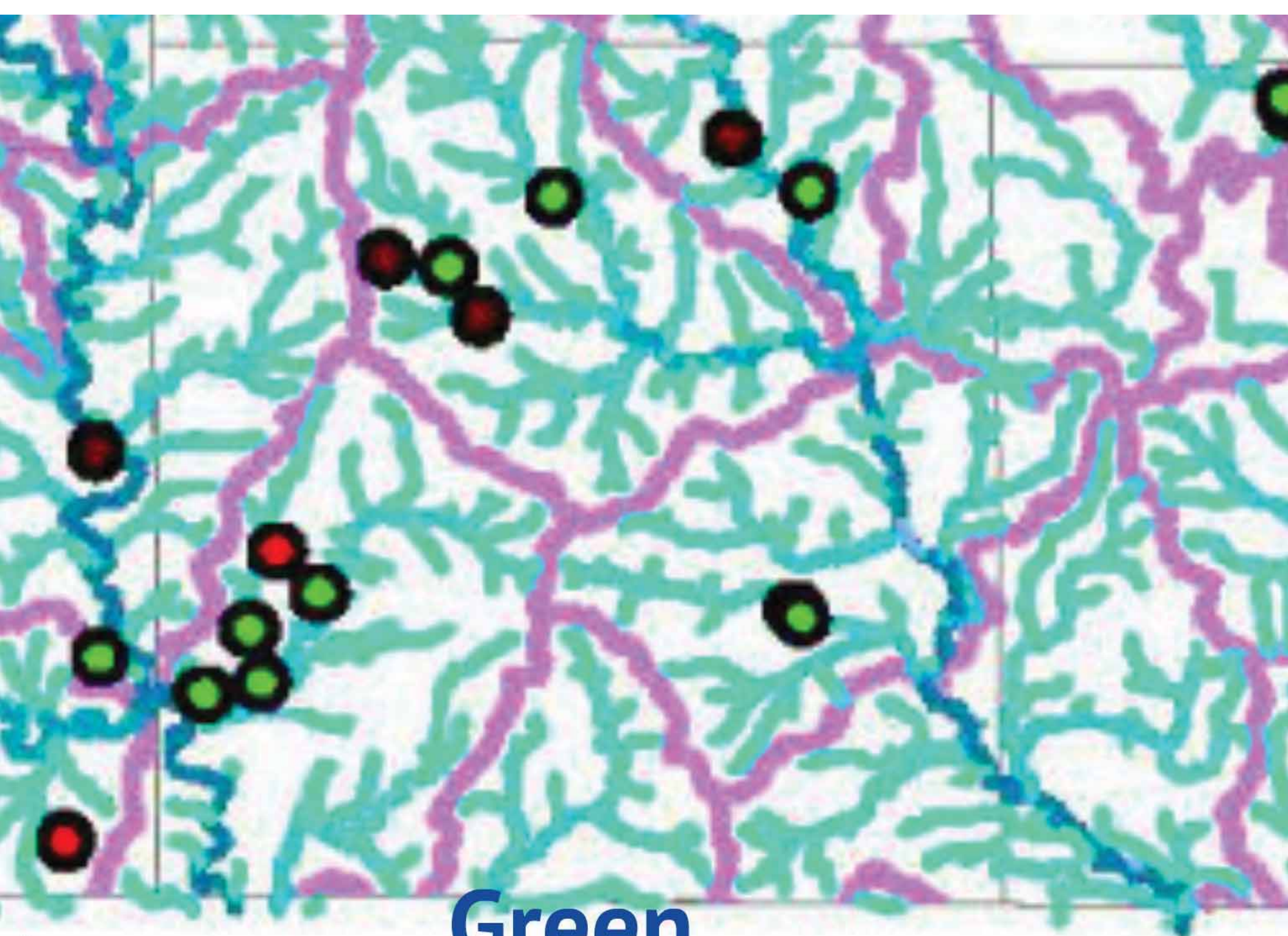
10 digit HUC







Lafayette



Green

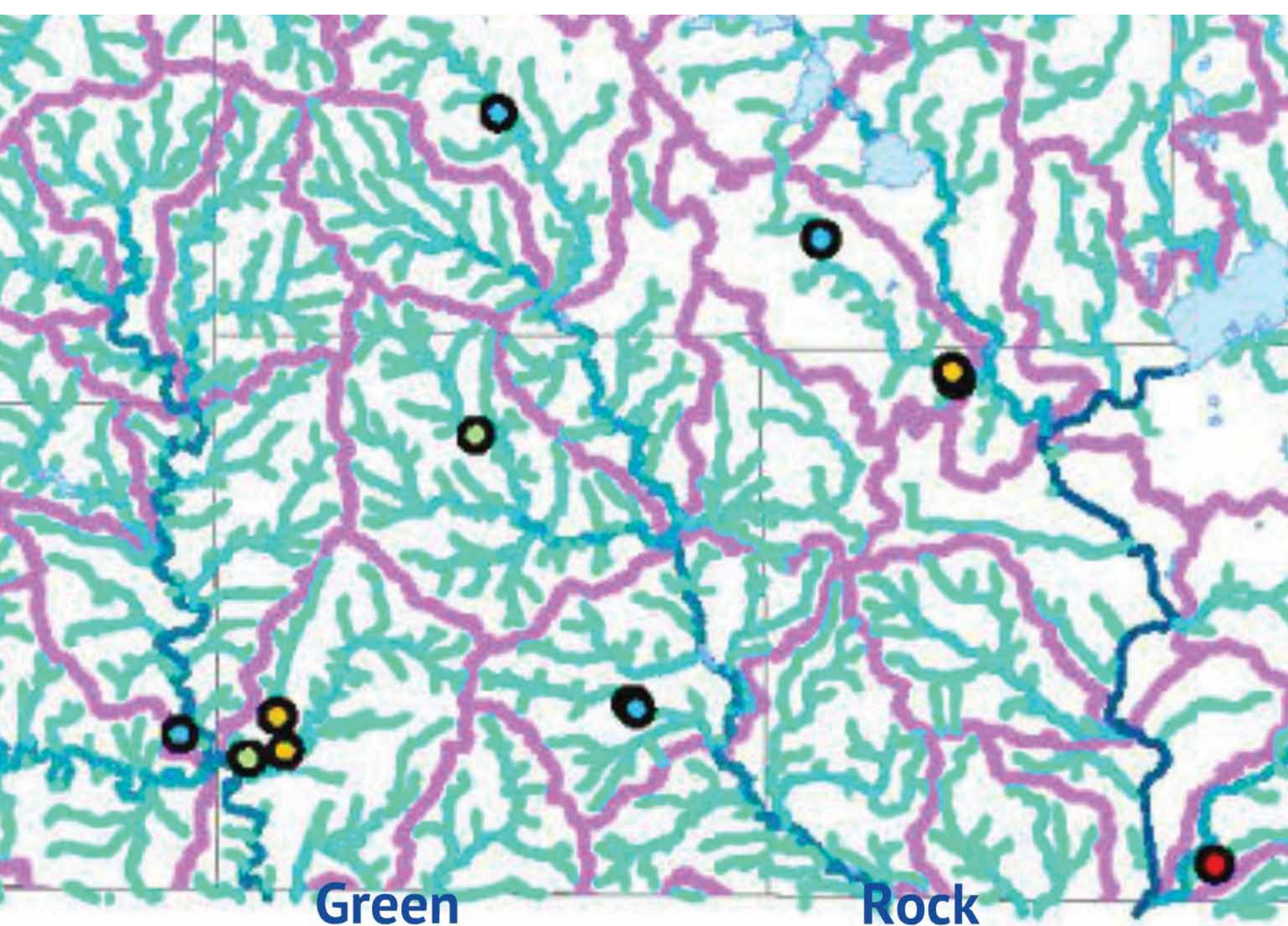
Withdrawal Pumpage (gpm) - August 31

- 11 - 150
- 151 - 275
- 276 - 450
- 451 - 650
- 651 - 1500

Stream Order

- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10 digit HUC





Green

Rock

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