WELCOME

to the

Lower Platte South NRD

Water Quality Management Plan Public Meeting

How to get the most of this meeting:

Check out each station and talk the project team to learn more about each topic.

Spend as much or as little time with us as you like

» A short presentation will be given at 6:30

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WRE Platte South

WWE Wright Water Engineers, Inc.

Purpose
of the project

The plan is 100% voluntary and non-regulatory

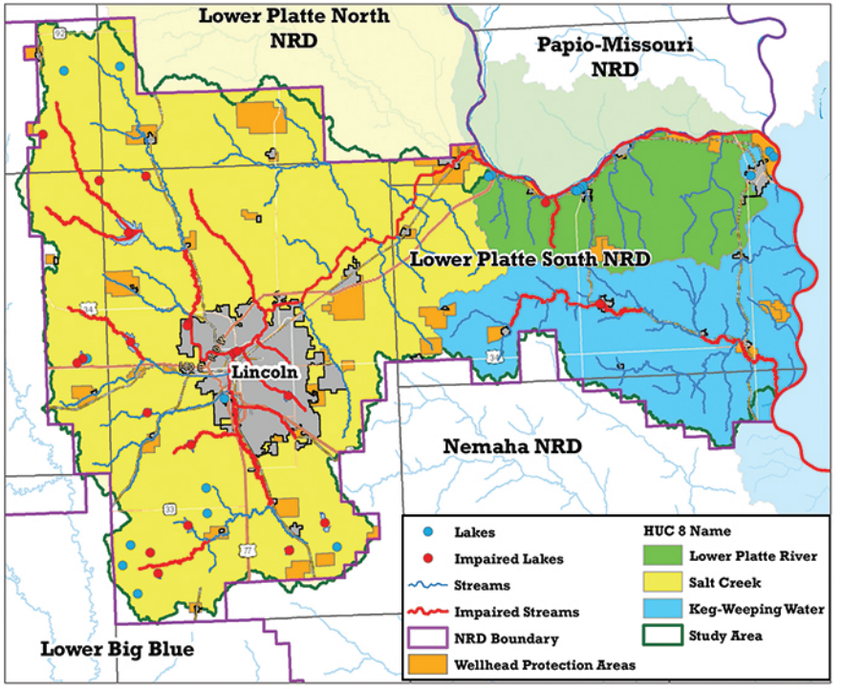
Local Input

- Local input is being provided through events like this open house
- Local stakeholders are meeting periodically to review findings and provide recommendations
- Stakeholders consist of landowners, citizens, natural resource agencies and others

Why

- Local surface waters (streams, lakes and wetlands) are impaired due to non-point source pollution
- Pollutants include bacteria (*E. coli*), nutrients (nitrogen and phosphorus), sediment and others
- While all parts of the water cycle are addressed, the plan is focused on surface water quality

Project Area



The planning process started in March 2017 and is scheduled to be complete in Fall 2018

Who

- Plan sponsor: Lower Platte South NRD
- Partial funding: Courtesy of the Nebraska Department of Evironmntal Quality (NDEQ)
- Other partners include:
  - City of Lincoln: Parks and Recreation
  - City of Lincoln: Watershed Management
  - Natural Resources Conservation Service (NRCS)
  - Nebraska Game and Parks (NGPC)

Additional information can be found on the Lower Platte South NRD website:

http://www.lpsnrd.org/

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Lower Platte South NRD
Water Quality Management Plan

E. coli bacteria in our water

Possible effects of *E. coli*

- Cryptosporidium
- Giardia (Beaver Fever)
- Enterovirus
- Skin Rashes
- Eye & Ear infections
- Hepatitis
- Respiratory Infections

Primary sources of bacteria

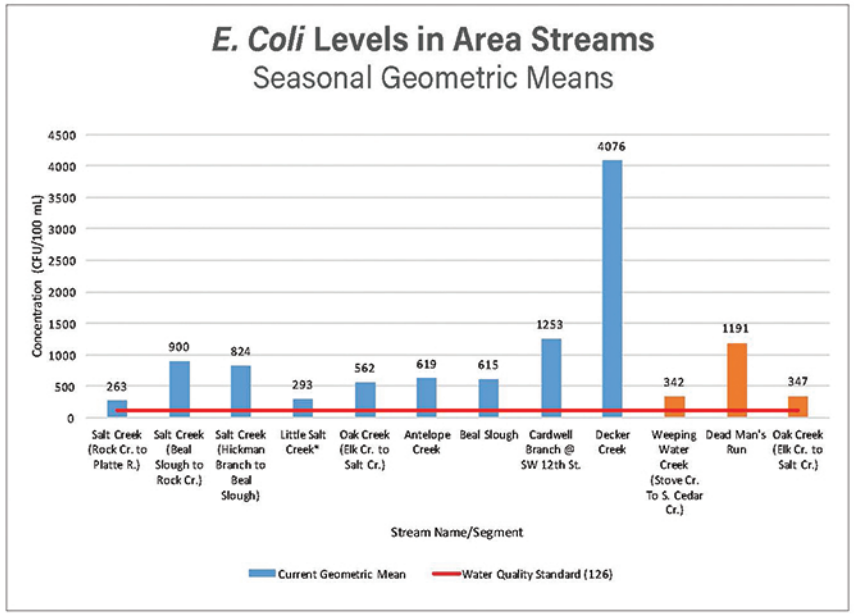
- Manure Application
- Livestock
- Pet waste
- Failing septic systems
- Wildlife

Other sources

- Fertilizers
- Soil erosion
- Stream erosion
- Sewage overflows

Why *E. coli*?

- *E. coli* is naturally occuring in all warm-blooded animals
- Usually *E. coli* is not dangerous in and of itself
- It is used as an "indicator" of the potential for other harmful pathogens
- Other pathogens that may be present due to fecal contamination. The Water Quality Standard is a geometric mean of 126 CFU/ml
- The standard is established through epidemiological studies based on the risk to human health



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Water Quality Management Plan

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Sediment & Nutrient Pollution

Sources of Sediment

- Stream erosion
- Agricultural erosion
- Construction sites

Sources of Nutrients

- Agricultureal fertilizers
- Residential fertilizers
- Manure/pet waste
- Soil erosion
- Failing septic systems

Effects on Environment

Sediment and nutrient pollution impact aquatic life, recreation, our economy, and human life in many ways. Some of the major effects are:

- Loss of farmland
- Loss of stream and lake habitat for fish and and other aquatic life
- Sedimentation of lakes, which leads to reduced water clarity and flood control benefits
- Blooms of toxic algae
- Degradation of drinking water

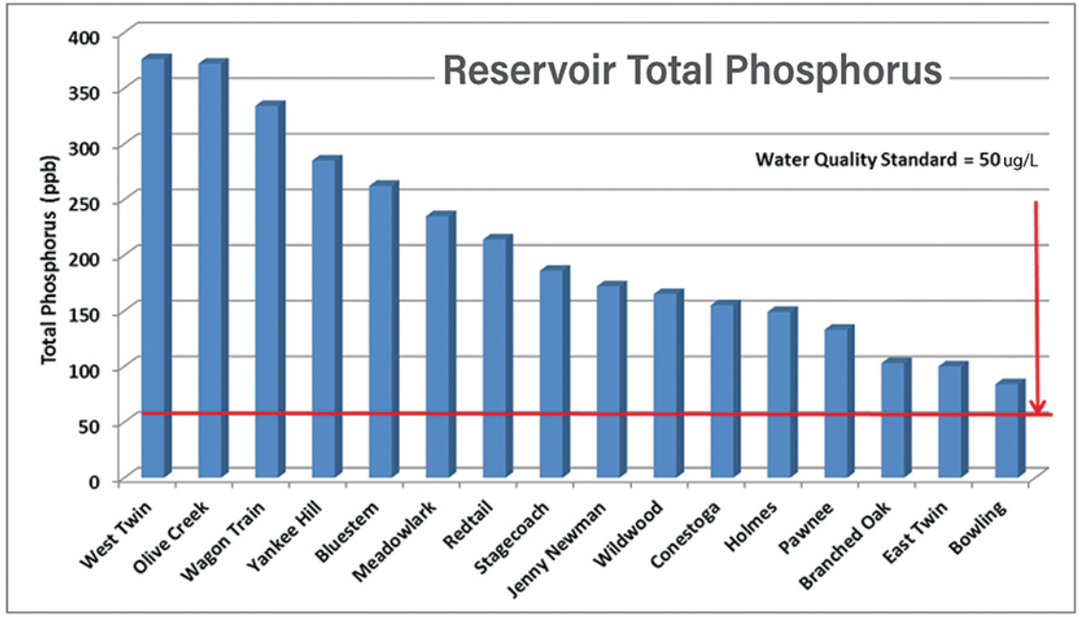
Other pollutants are often carried into waterways attached to sediment

Water Quality Standard

Sediment and nutrient standards do not apply to streams, although there are impacts to lakes and other water bodies downstream

For lakes:

- Total Phosphorus: 50 ug/L
- Total Nitrogen: 1000 ug/L
- Sedimentation in lakes and reservoirs must not lead to a loss of more than 0.75% per year, and no more than a 25% total loss of volume



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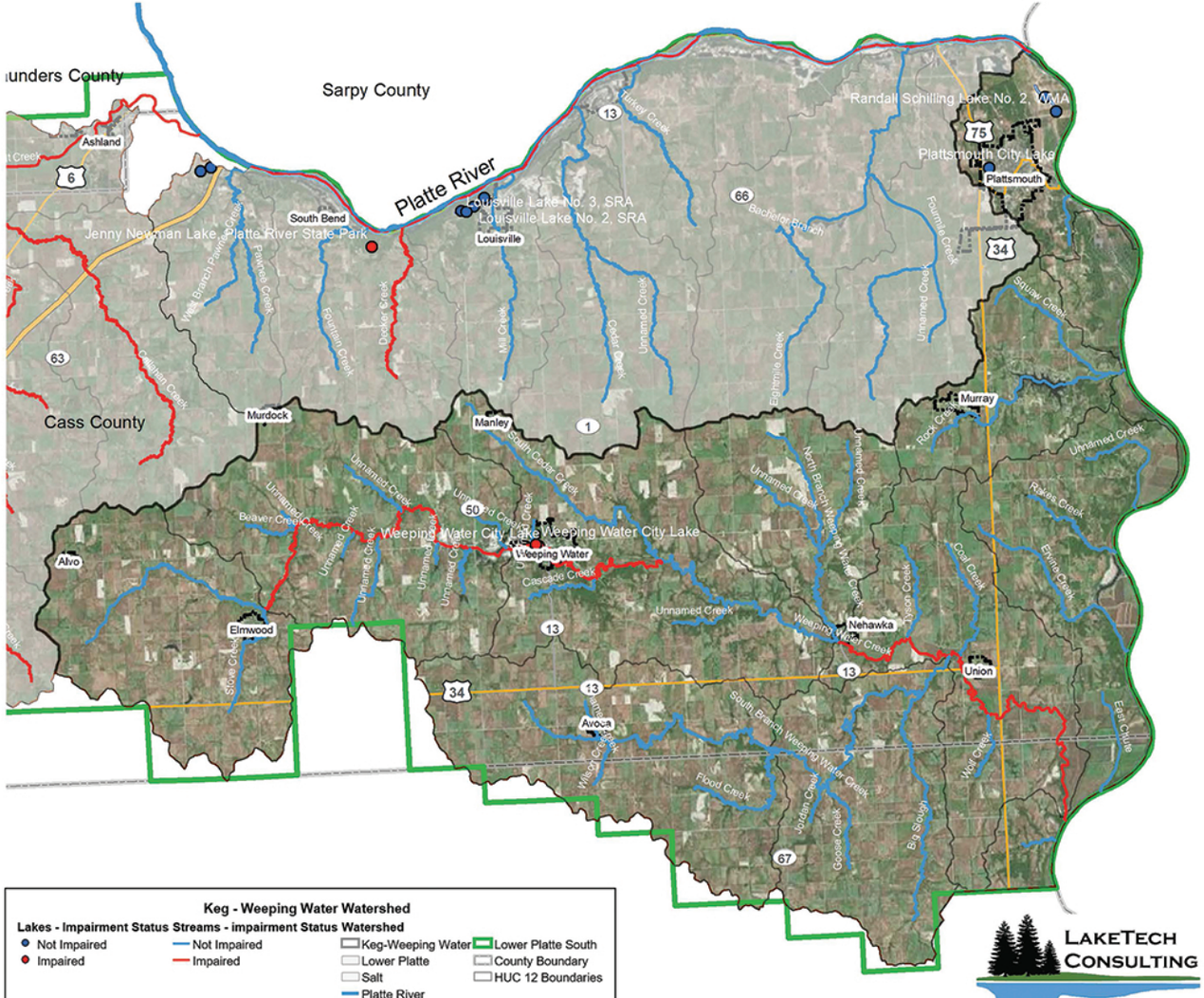
Keg-Weeping Watershed

Lower Platte South NRD

Water Quality Management Plan

What watershed do you live in?



Lake Name	Impaired due to
Weeping Water City Lake	Fish consumption advisory

Stream Name	Impaired due to
Weeping Water Creek	Bacteria, Selenium

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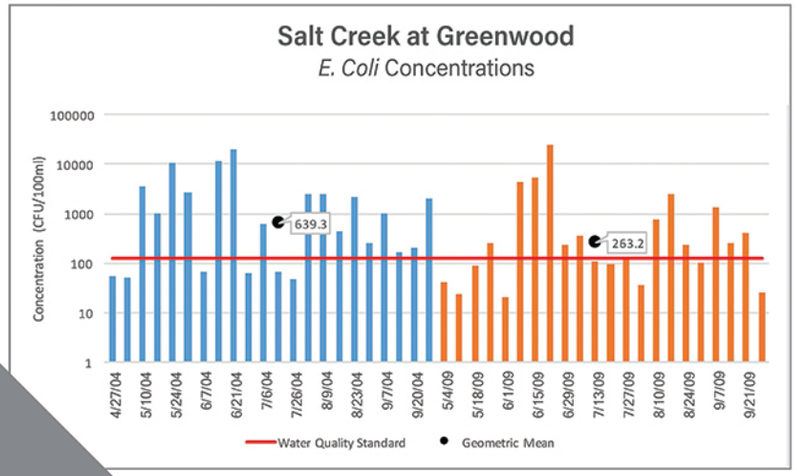
Salt Creek Watershed

What watershed do you live in?

Lake Name	Impaired Due to
Wagon Train Lake	Nutrients, Chlorophyll a, Low dissolved oxygen, Fish consumption advisory
Holmes Lake	Nutrients, Chlorophyll a, Fish consumption advisory
Stagecoach Lake	Nutrients, Chlorophyll a, Fish consumption advisory, sedimentation
Oak Lake	Low dissolved oxygen, Chlorides
Bluestem Lake	Nutrients, Chlorophyll a, Fish consumption advisory, Sedimentation
Wildwood Lake	Nutrients, Chlorophyll a, DO, Fish consumption advisory
Conestoga Lake	Nutrients, Chlorophyll a, Sedimentation
Olive Creek Lake	Nutrients, Chlorophyll a, pH
Branced Oak Lake	Nutrients, Chlorophyll a
Pawnee Lake	Nutrients, Chlorophyll a, Sedimentation
Merganser Lake, 25A	Fish consumption advisory
East Twin Lake	Nutrients, Chlorophyll a
West Twin Lake	Nutrients, Chlorophyll a, Ammonia
Redtail Lake	Nutrients, Chlorophyll a
Yankee Hill Lake	Nutrients, Chlorophyll a, pH
Bowling Lake	Nutrients, Chlorophyll a
Meadowlark Lake	Nutrients, Chlorophyll a

*Chlorophyll a is an indicator of high amounts of algae

Stream Name	Impaired Due to
Salt Creek	Bacteria, Selenium
Salt Creek	Bacteria, Fish consumption advisory, Impaired aquatic community
Little Salt Creek	Copper, Selenium, Ammonia, Impared Aquatic community
Dead Man's Run	Bacteria, naturally high pH, DO
Oak Creek	Bacteria, Chloride, Fish consumption advisory
Oak Creek	Bacteria, Impaired aquatic community
Middle Oak Creek	Atrazine
Oak Creek	Atrazine
Antelope Creek	Bacteria, Selenium, Copper
Beal Slough	Bacteria
Salt Creek	Bacteria, Impaired aquatic community
Carwell Branch	Bacteria
Olive Branch	Impaired aquatic community
Callahan Creek	Naturally high iron
Robinson Creek	Naturally high iron
Greenwood Creek	Naturally high iron
Dee Creek	Naturally high iron
Camp Creek	Naturally high iron
Rock Creek	Naturally high iron
North Forth Rock Creek	Naturally high iron
Middle Creek	Atrazine



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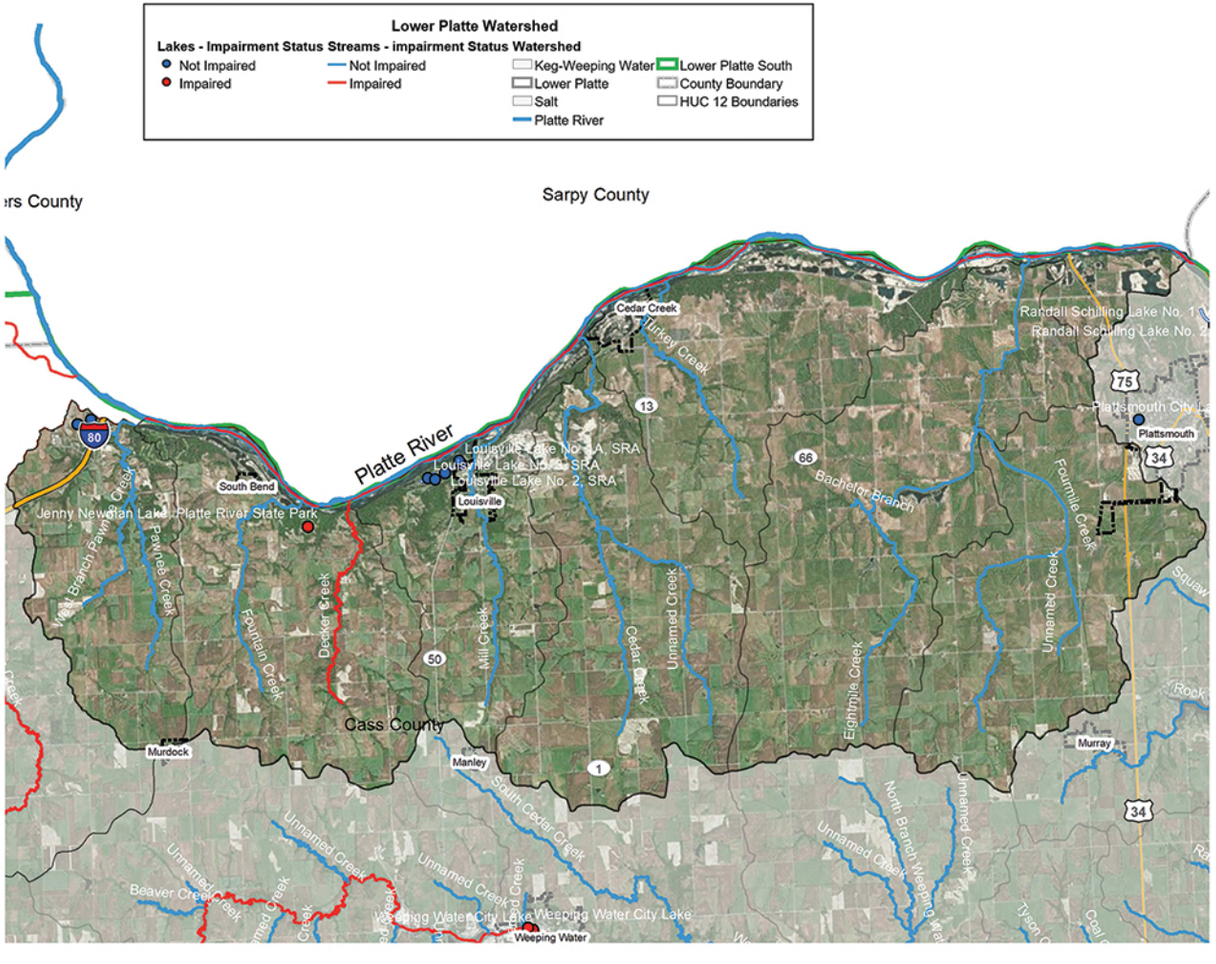
Lower Platte River Watershed

Lower Platte South NRD

Water Quality Management Plan

What watershed do you live in?



Lake Name	Impaired due to
Jenny Newman Lake	Nutrients, Chlorophyll a

**Chlorophyll a is an indicator of high amounts of algae*

Stream Name	Impaired due to
Platte River	Bacteria, Selenium, Fish comsumption advisory
Decker Creek	Bacteria

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