

# NDNR Overview: Surface Water Permitting, Field Office Activities, and Integrated Water Management

Jennifer Schellpeper, IWM Acting Division Head

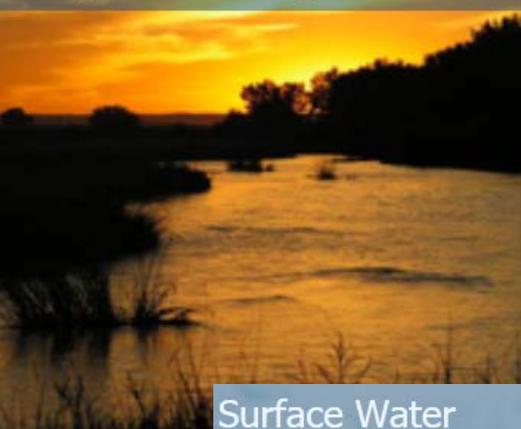
Mike Thompson, Natural Resources Division Manager

Tom Klanecky, Ord Field Office Supervisor

Carol Myers Flaute, Integrated Water Management Analyst



Water Planning and Integrated Management



# Who is NDNR?

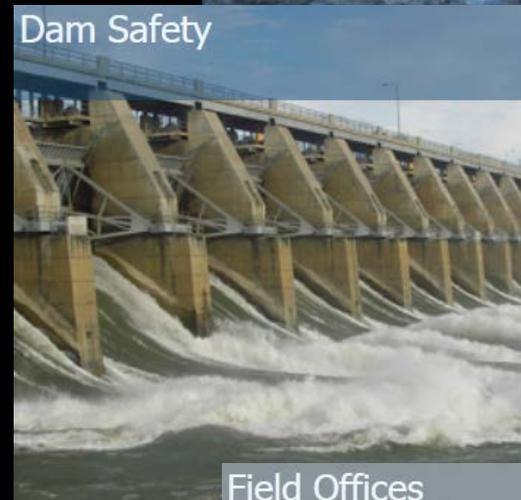
Groundwater



Surface Water



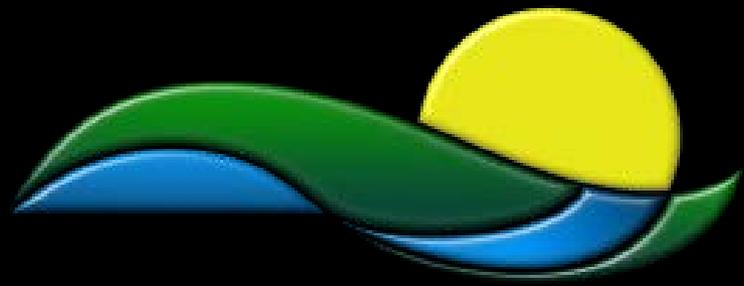
Dam Safety



Floodplain Management



Field Offices



# Agency Mission

## VISION

- The DNR is dedicated to working with Nebraska's citizens and leaders for the effective management and conservation of the State's water and land resources.

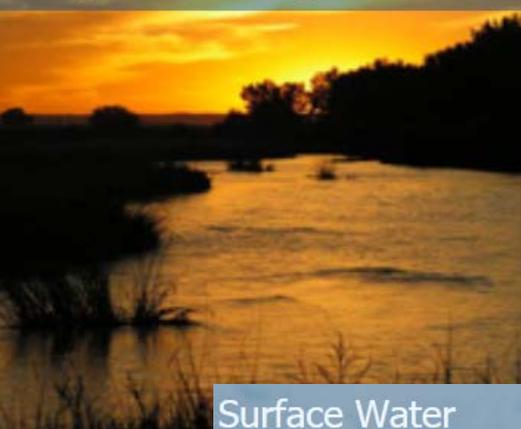
## MISSION

- Committed to perform our statutory responsibility to manage and conserve the State's water and land resources.

# Available Information

- New Website Design - <http://dnr.ne.gov/>
- Statewide Water Planning - <http://dnr.ne.gov/iwm/statewide-water-planning>
- Streamgaging - <http://data.dnr.nebraska.gov/RealTime>
- NERain - <http://nerain.dnr.nebraska.gov/nerain/>
- Ice Jam Monitoring - <http://dnr.ne.gov/fpm/ice-jam>
- INSIGHT - <http://dnr.ne.gov/insight/>
- Voluntary Water Use Database - <http://data.dnr.nebraska.gov/wateruse>

Water Planning and  
Integrated Management



# Today's Presentation

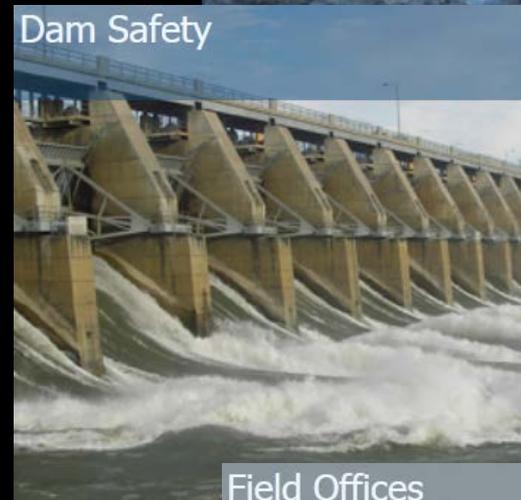
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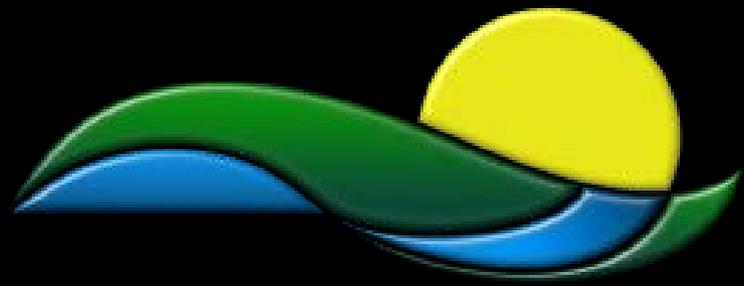
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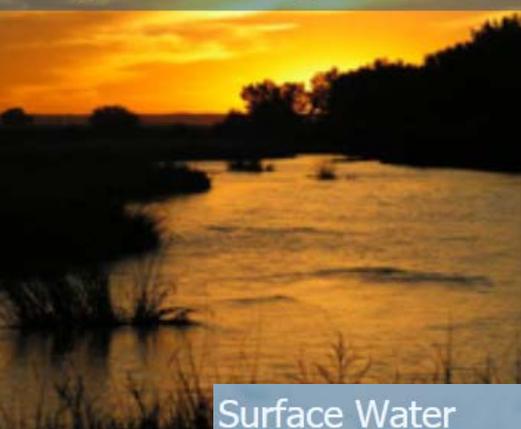
Floodplain Management



Field Offices



Water Planning and  
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# Today's Presentation

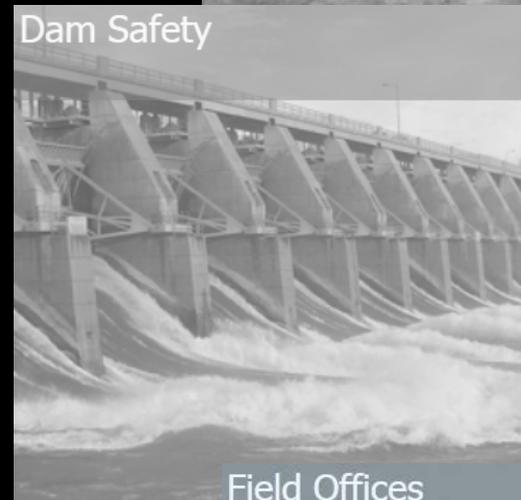
Groundwater



Surface Water



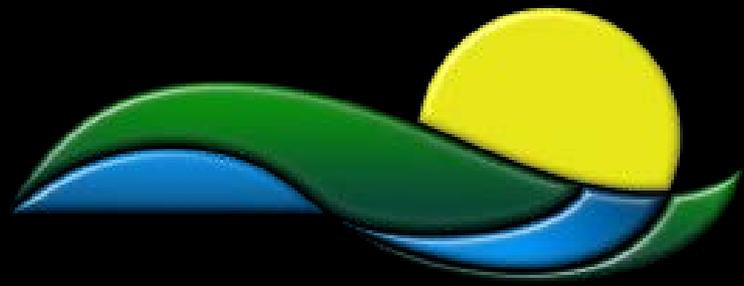
Dam Safety

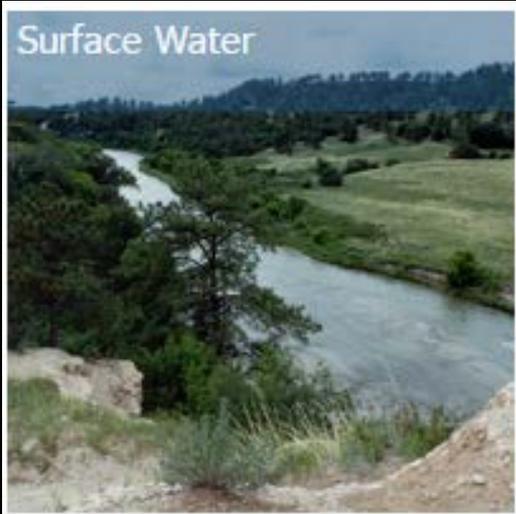


Floodplain Management



Field Offices





# **SURFACE WATER PERMITTING**

# Surface Water Permitting

- 1) Application procedure for obtaining a surface water permit
- 2) How NDNR determines whether to approve a permit application
- 3) Additional considerations in IMP/moratorium areas
- 4) What it means if an appropriation is approved



# Application Procedure for Surface Water Permits

## Applicant Process

- 1) Submit application
  - Application must be made to NDNR before commencing construction or taking water
  - Application must list:
    - Purpose
    - Water source
    - Amount requested
    - Time to complete construction
    - Time of first beneficial use
- 2) Correct defective applications within 90 days. Provide any additional supporting information that NDNR deems necessary to complete a review

## NDNR Process

- 1) Identify defects in application and request other information
- 2) Post public notice of applications – newspaper and NDNR website
- 3) Approve or deny application



# NDNR Determination Procedure

- The criteria for determining whether to grant a surface water permit are statutorily defined (*Neb. Rev. Stat. § 46-235*)
  - NDNR shall approve the application if:
    - There is unappropriated water in the source of supply named in the application,
    - Such application and appropriation when perfected are not otherwise detrimental to the public welfare, and
    - Denial of the application is not demanded by the public interest



# Additional Considerations in IMP/moratorium Areas

- In areas with IMPs, there may be an additional step before a permit is allowed to be filed if there is a moratorium or stay in place
- NDNR may not be able to grant a permit if there is a moratorium or stay on irrigated acres in place, but applications may still be filed

# Your Irrigation Appropriation is Approved

## What do you Get?



- You have received permission to **beneficially and frugally use the water** from the stream as prescribed in Approval Order, which defines the use, amount, location, and conditions of the permit
- It is **not a guarantee of water**, and you may not injure senior appropriators while exercising your right
- You **may call for water in times of shortage** if there are upstream junior appropriators affecting your supply

Field Offices



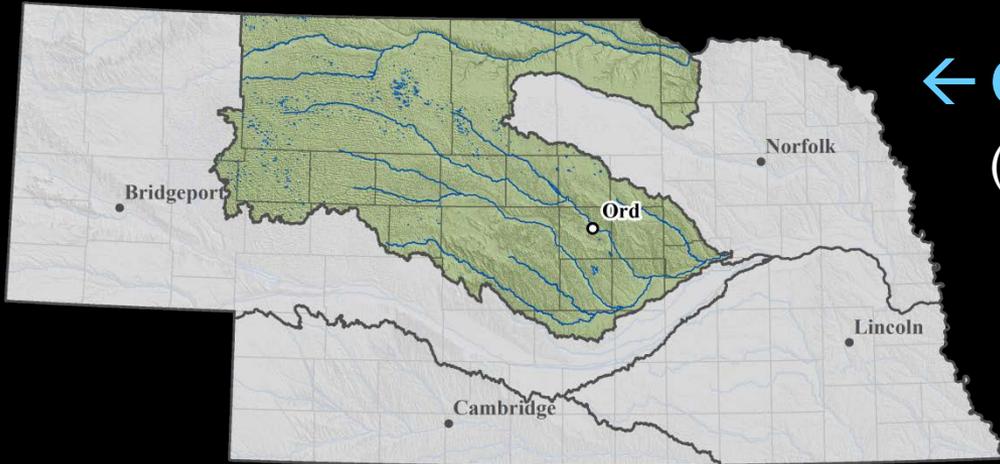
**ORD FIELD OFFICE**

# Field Office Overview

- Ord Field Office Responsibilities:
  - Surface Water Administration Program
  - Stream Gaging and Measurement Program
  - Dam Inspections – Safety of Dams Division
  - Field Investigations – Permits Division

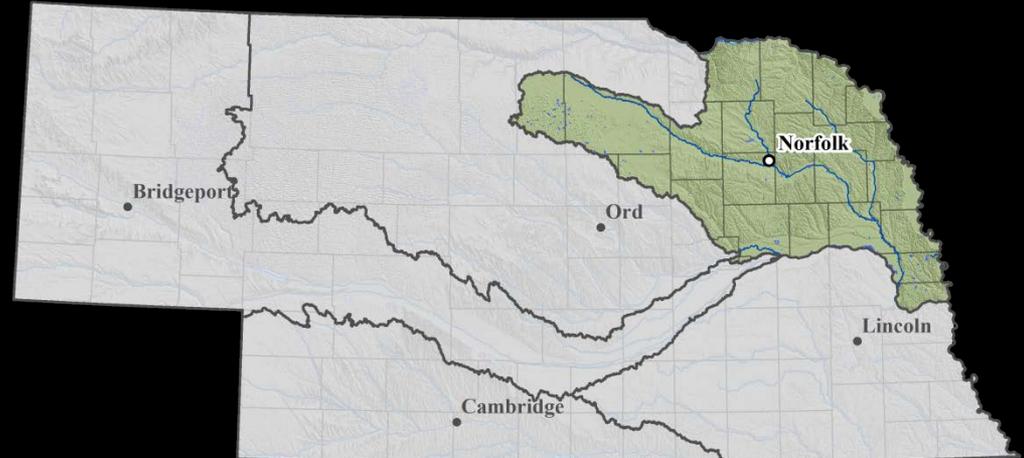


# Surface Water Administration Area



← **Ord Field Office**  
(includes LNNRD)

**Norfolk Field Office** →  
(includes UENRD)



# Ord Field Office

## Surface Water Administration

- **Administration Activities – Depending Upon:**
  - Daily flow and demand for water
  - Relation between Priority, Preference, and Storage
  - Various other factors that affect stream flow
- **Closing Notices:**
  - Issued by Field Office based on water basins
  - Scores of diversions may be closed at anytime
  - Site visits to check compliance, flow, and demand
- **Opening Notices:** Issued as flow increases or demand is met

# Field Offices

## Stream Gaging Program

- Approximately 85 year-round stream gages
  - Located on streams, rivers and lakes throughout the State
  - Monthly site visit and discharge measurement
- Approximately 100 seasonal stream gages
  - Located on canals, some lakes and streams
  - Measured weekly, monthly, seasonally
- Stage - Discharge Records
  - Annual review and check of each individual record

# Field Offices Stream Gage Site





# Ord Field Office Stream Measurement



# Dam Inspection Boundaries



# Ord Field Office Safety of Dams

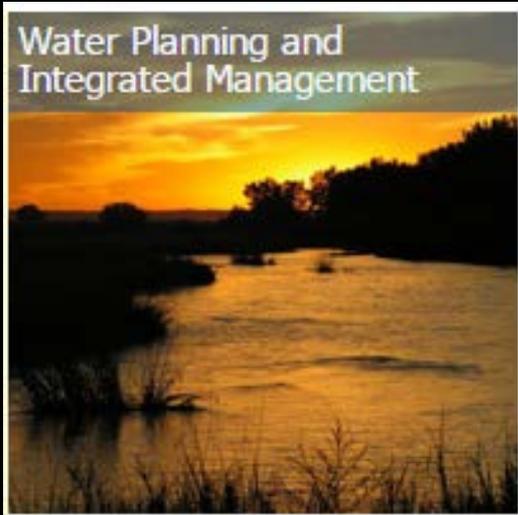
- Support for Dam Safety Division
- Approximately 70 inspections annually
  - Typically small earthen dams w/no downstream structures
  - Both NRD and private owners
  - Pre-notification letter
  - Safety Inspection Report



# Ord Field Office

## Field Investigations

- In support of Permit Section:
  - Investigate non-use or non-compliance
  - Based on basin, stream, or Department knowledge
  - Approximately 50 investigations pending for 2015
- Field Investigation Components:
  - Site visit
  - Interview with owner, tenant, or operator
  - Title search
  - Signed and Notarized Report



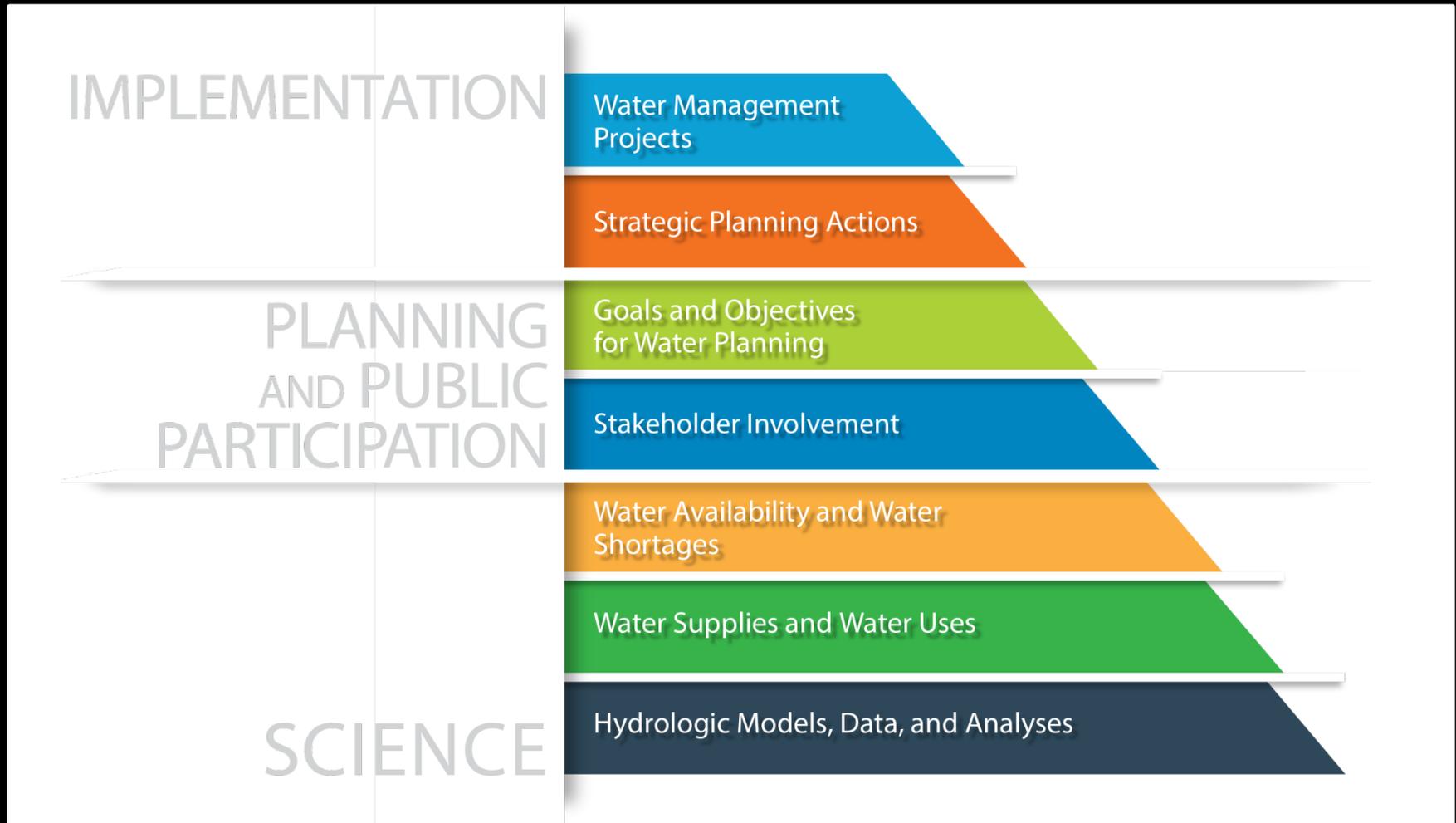
# **INTEGRATED WATER MANAGEMENT**

# The Integrated Water Management Process

- Helps maintain a balance between water supplies and uses
- Protects the rights of existing water users
- Helps Nebraska plan for highly variable water supplies
- Manages surface and groundwater as one resource



# Integrated Water Management



# Science: Integrated Water Management Models and Studies

**INSIGHT**  
An Integrated Network of Scientific Information & GeoHydrologic Tools

HOME ABOUT MODELING DATA

Nebraska  
Department of Natural Resources

Welcome to INSIGHT. The data and charts represent our first release and we anticipate modifications and updates based on user feedback. Please [click this link](#) if you would like to provide a comment or suggestions.

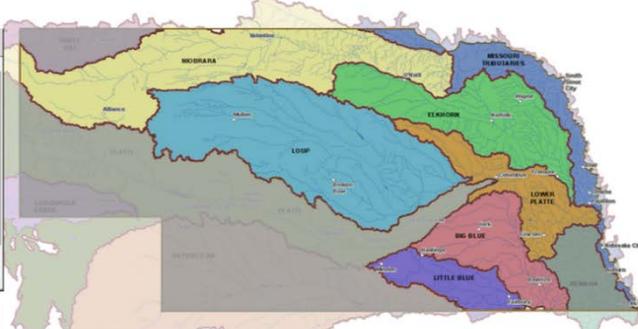
SELECT BASIN ▼

Getting Started with INSIGHT

Use this page to get started using INSIGHT.

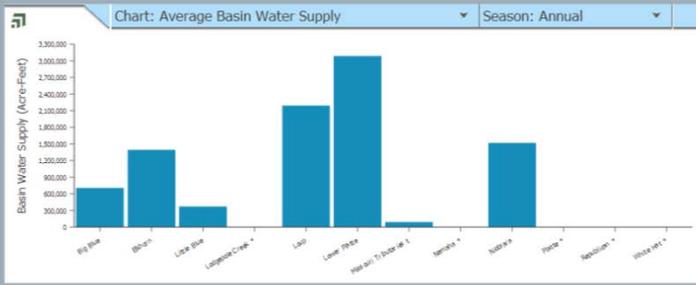
Begin by exploring hydrologic data for supplies, demands, and nature and extent of use for the state of Nebraska in the charts and graphs found in the tab area below. If you would rather learn more about hydrologic conditions for one of the state's basins and corresponding subbasins, use your mouse to hover over the map to the right and click on the basin you want to learn more about. Alternatively, you can select a basin from the drop-down menu just to the right of the map by clicking on the arrow ▼ next to SELECT BASIN. Clicking on one of these basin names has the same effect as clicking on the basin in the map.

Note that the map has some greyed-out areas. These areas, including the White-Hat, Platte, Lodgepole Creek, and Republican basins have limited data and/or are currently not available. Keep in mind that state



Supply Demand Nature & Extent of Use

Chart: Average Basin Water Supply Season: Annual



Basin	Average Basin Water Supply (Acre-Feet)
Big Blue	~500,000
Blue	~1,200,000
Little Blue	~300,000
Lower Platte	~1,200,000
Republican	~1,200,000
Upper Platte	~2,800,000
Lower Platte	~1,200,000
Big Blue	~1,200,000
Little Blue	~300,000
White Hat	~1,200,000

Supply

Basin water supplies represent the streamflow water supply that is available for total use within a river basin or subbasin. If no surface water or groundwater use was occurring by humans in a basin, the basin water supply would be represented by the streamflow data captured at a streamflow gaging station. However, streamflow is impacted by human activity; therefore, to calculate a total basin water supply, three water supply components are added together. These three water supply components include:

1. Streamflow
2. Surface water consumptive uses
3. Groundwater depletions

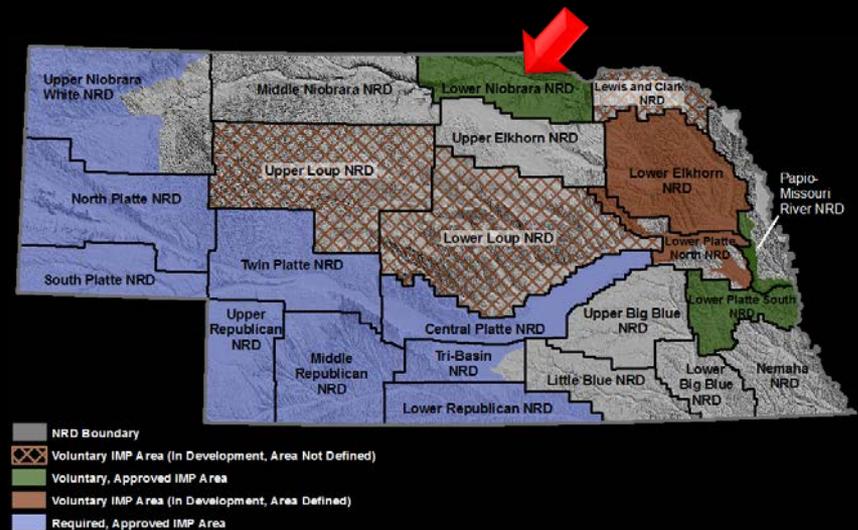
The charts found in this tab include:

Data from models and other sources is compiled, analyzed, and displayed on the **INSIGHT** website for several basins across the state

[www.dnr.nebraska.gov/INSIGHT/](http://www.dnr.nebraska.gov/INSIGHT/)

# Planning: Status of LNNRD Planning Efforts

- LNNRD Integrated Management Plan
  - Development phase: *2011-2014*
  - Became effective: *May 1, 2014*
  - Implementation phase: *May 1, 2014 to present*



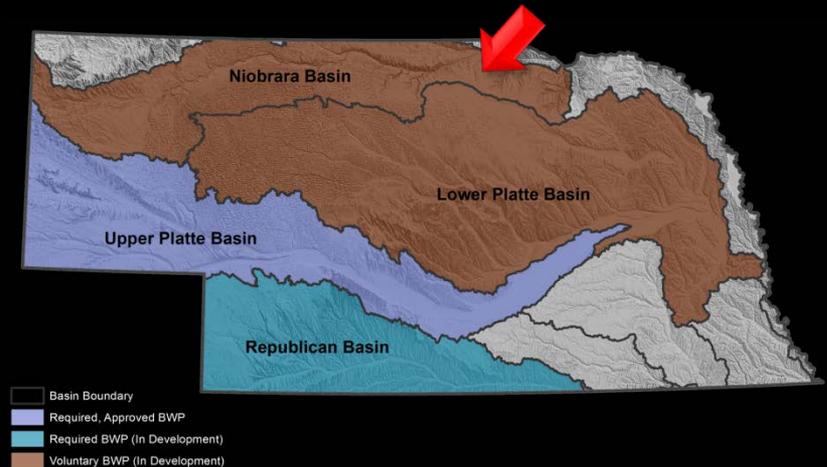
# Planning: Status of LNNRD

## Planning Efforts

- **Niobrara Basin-Wide Plan**

- Includes LNNRD
- Currently in very early stages of planning
- Public input survey – **deadline March 11**

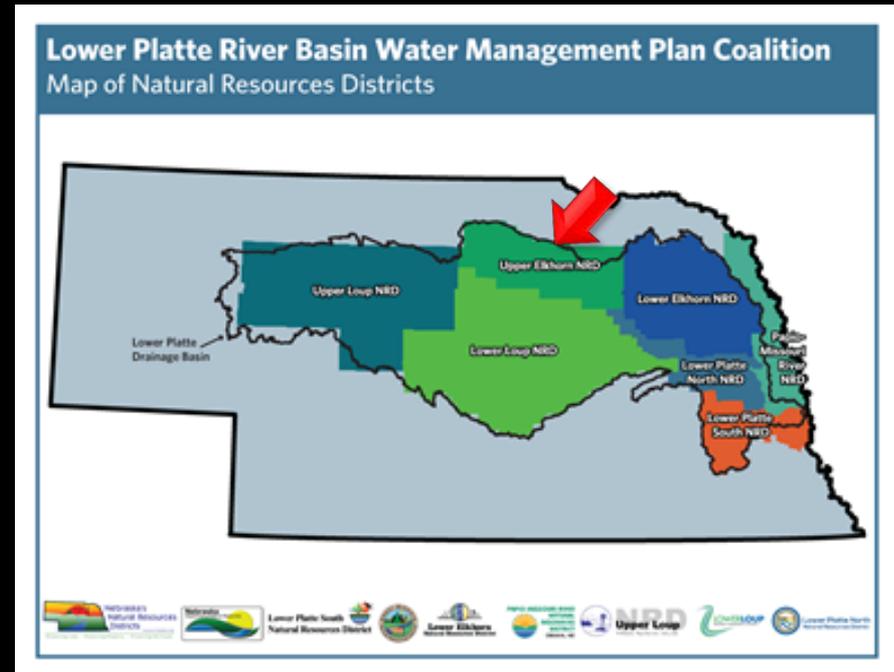
<http://go.unl.edu/39wo>



# Planning: Status of UENRD Planning Efforts

- **Lower Platte Basin-Wide Plan**

- Includes UENRD
- Final plan target: End of 2015
- More information: <http://dnr.nebraska.gov/LPRBC>



# Implementation: Gathering Additional Data



# **NDNR INFORMATION STATIONS**

# NDNR Information Stations



## Ord Field Office

- Streamgages
- Water administration

## Water Planning

- Integrated management plans
- Basin-wide plans

## Water Permits

- Water permits and applications



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