

# Coordinated Water Quality and Water Quantity Planning for the Upper Big Blue NRD

Carla McCullough, MS  
Planning Unit  
NDEQ

Amy Zoller, MS  
Water Planning Division  
NeDNR

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# Presentation outline

- Introduction
- Joint water quality plans
- Joint water quantity plans
- Challenges and opportunities in coordinating water quality and quantity plans
- The UBBNRD approach

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# Introduction

- Several types of joint water management plans are developed between:
  - NRDs and NeDNR
  - NRDs and NDEQ
- Various plans serve specific purposes and have different requirements.
- Unique opportunity to coordinate planning efforts in the Upper Big Blue NRD
  - Timing, geographic area
  - First of its kind in Nebraska

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# Introduction

## Upper Big Blue NRD Planning Initiatives

Plan Name	Water Quality Management Plan (WQMP)	Voluntary Integrated Management Plan (V-IMP)
Partners	NRD, NDEQ	NRD, NeDNR
Focus	Surface Water and Groundwater Quality	Surface Water and Groundwater Quantity & Hydrologic Connectivity
Authority	Federal Clean Water Act (319 Nonpoint Source Pollution)	Nebraska State Statutes (LB962, 2004; LB764, 2010)

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# Coordinated Water Quality and Quantity Planning: Joint Water Quality Plans

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# NDEQ - Nonpoint Source Pollution

- From landscapes, not pipes
- Runoff transports pollutants
- Affects lakes, rivers, wetlands and groundwater
- Common pollutants are sediment, nitrogen, phosphorus and bacteria



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# NDEQ - Nonpoint Source Pollution Program

- Nonpoint Source Program funded via EPA through the Federal Clear Water Act, Section 319(h).
- Nebraska receives annual '319' grant and has 5 years to spend the grant funds.
- ~\$1.2 million has gone out annually to project sponsors (e.g. NRDs) for on-the-ground projects.



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# NDEQ - Nonpoint Source Pollution Program

- Requirements to qualify for 319 funds for project funds:
  - 9-Element or Alternative Plan.
  - Plan must be accepted by NDEQ and EPA R7.
  - Plan must be no more than five years old.
  - Projects require a 40% non-federal match.

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# NDEQ Nonpoint Source Plans

9-Element Plans	Alternative (to a 9-Element Plan)
Watershed	Groundwater Protection
Basin (NRD)	Drinking Water Protection

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# NDEQ Nonpoint Source Plans

9-Element Plans	Alternative (to a 9-Element)
Watershed	Groundwater Protection
South Loup Watershed	Bazile Groundwater Management Plan
Long Pine Creek Watershed	
Basin (NRD)	Drinking Water Protection
Papio-Missouri Basin Plan	Auburn
Lower Elkhorn Basin Plan	Waverly

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# 9-Element Watershed Management Plans



- What are 9 Element WMPs?
  - Roadmap for water quality improvement
  - Voluntary plans
  
- Why do a 9 Element WMP?
  - Community Based Planning
  - Funding for Nonpoint Source Projects

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# 9-Element Watershed Management Plans

1. Identification of Pollutant Sources
2. Estimation of Pollutant Loads
3. ID Best Management Practices
4. Communication & Outreach
5. Implementation Schedule
6. Milestones to Measure Progress
7. Evaluation Criteria
8. Monitoring
9. Technical & Financial Assistance



From Papio-Missouri NRD Draft Plan, Fyra.

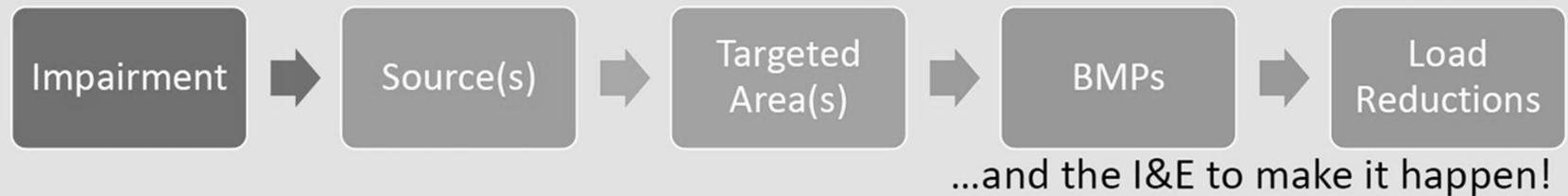
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# NDEQ – Writing Acceptable Plans

## The Path of Least Resistance

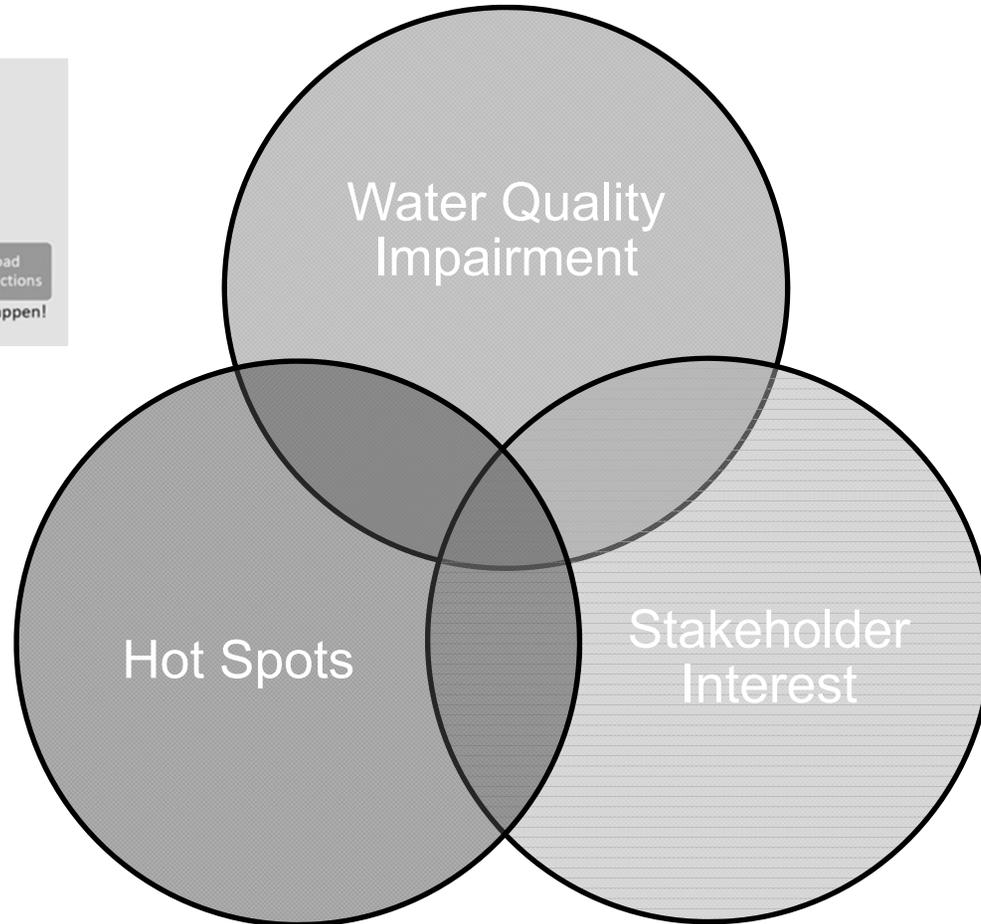
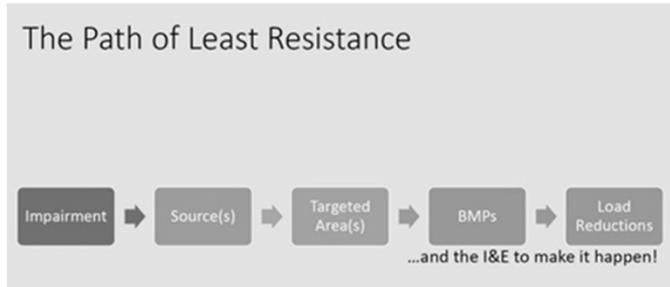


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# NDEQ -Targeted Areas

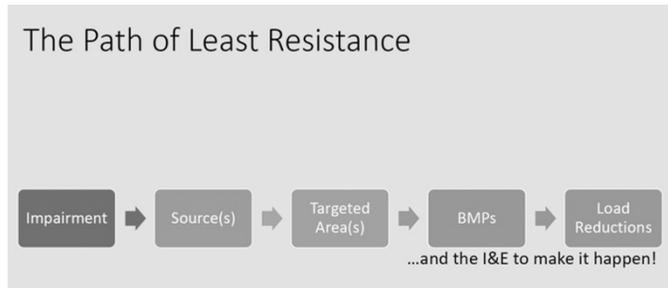


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# NDEQ - Implementing Plan with Projects



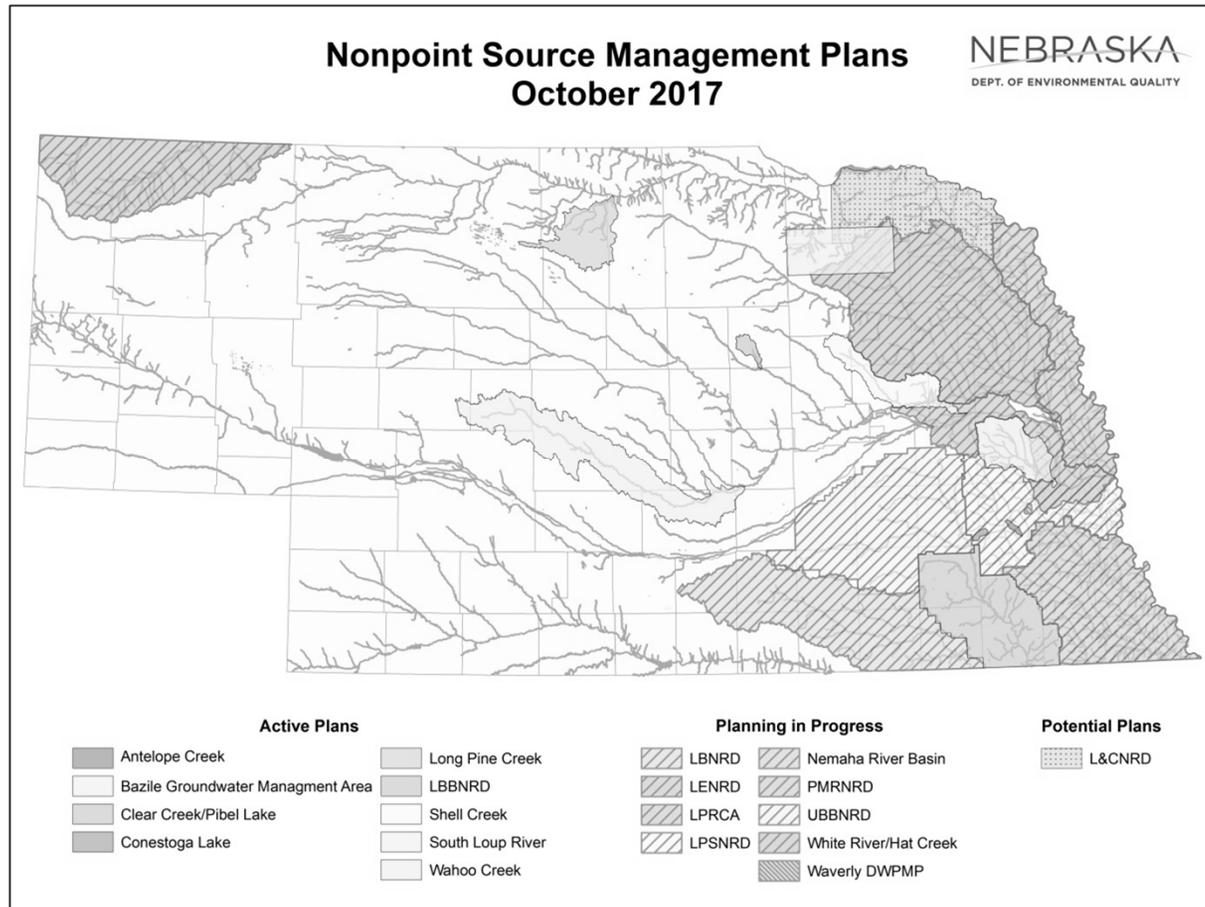
- Project Implementation Plan (PIP)
- Contract signed between NDEQ and Sponsor
- Project starts
  - Cost-share for BMPs
  - Watershed Coordinator
  - Evaluate results



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# NDEQ – Where are we planning?



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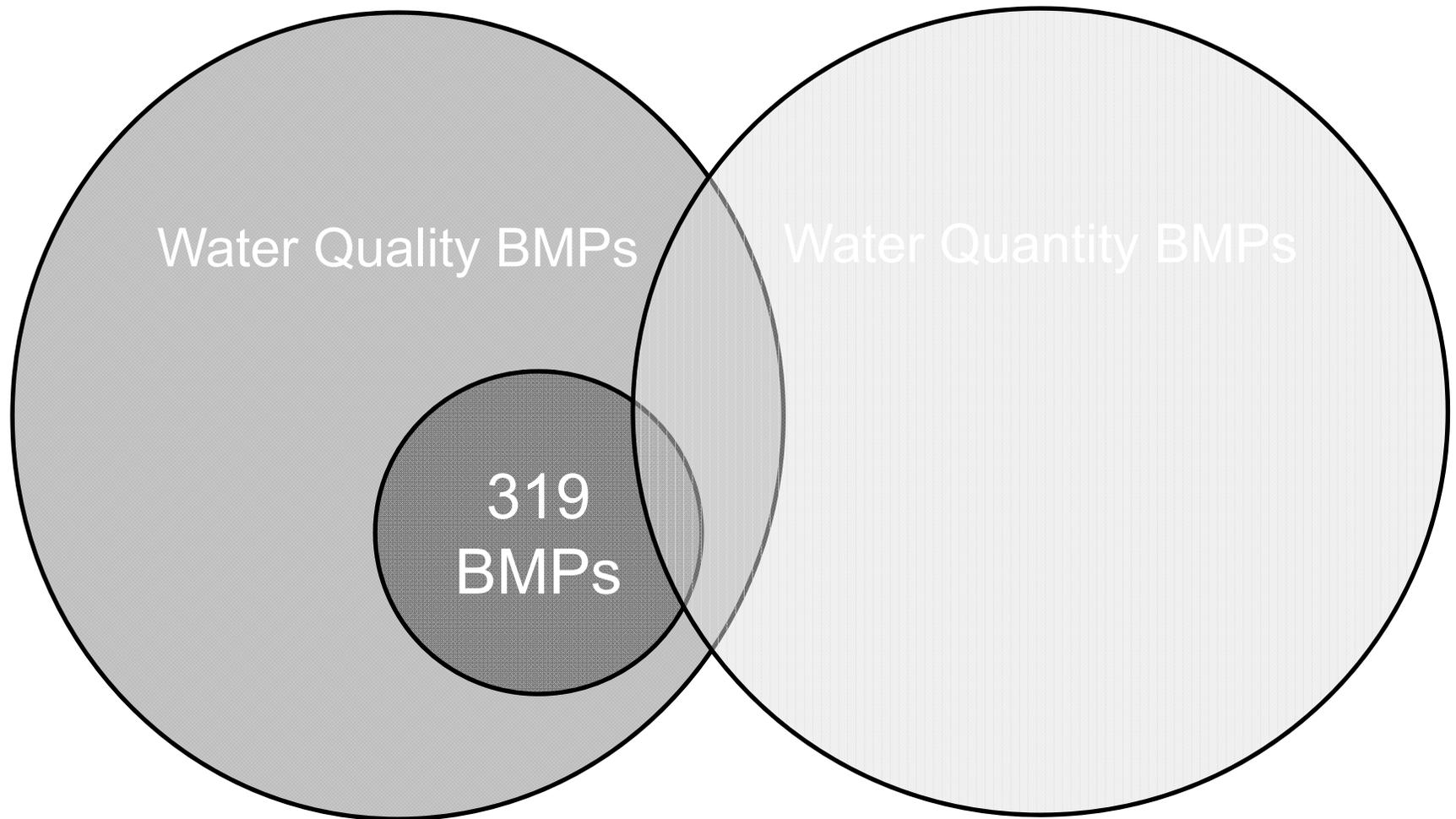
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# NDEQ – Plan Implementation





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# Coordinated Water Quality and Quantity Planning: Joint Water Quantity Plans

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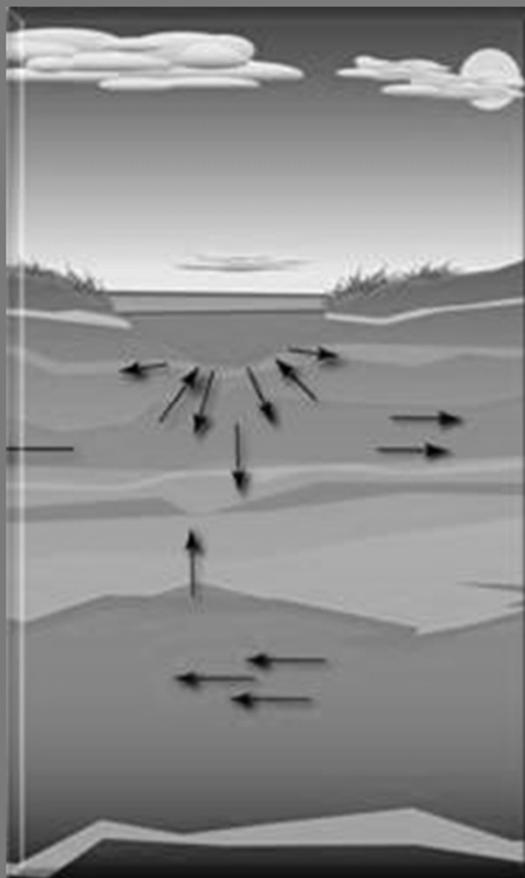
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# Integrated Water Management

- Jointly managed ground and surface water uses/supplies
- Recognizes hydrologic connection between ground and surface water

## EFFECTIVE MANAGEMENT OF HYDROLOGICALLY CONNECTED WATERS



Surface Water Quantity

- Regulated by NeDNR
- Prior appropriations system

Integrated Water Management

Groundwater Quantity

- Regulated by NRDs
- Correlative rights system

# Integrated Water Management

- LB962, 2004
  - Required joint NRD and NeDNR planning for fully-appropriated basins
- LB764, 2010
  - Inclusion of voluntary integrated management planning
- LB1098, 2014
  - Water sustainability fund
    - Improved ranking for NRDs with IMPs



Governor Johanns signed LB962 into law on April 15, 2004

# Integrated Management Plans

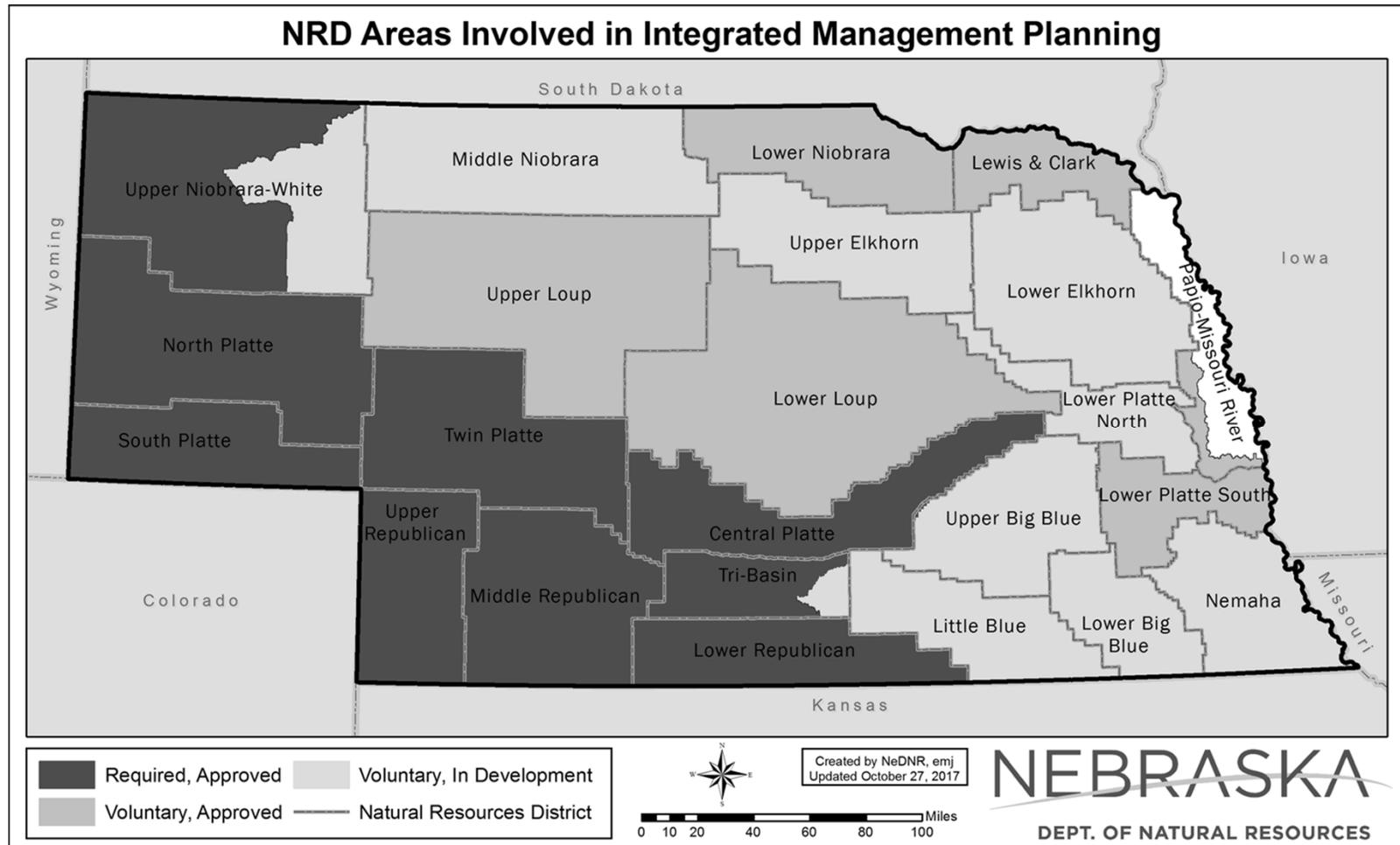
- IMPs address hydrologically connected ground and surface water
- Joint plan between an NRD and NeDNR
  - Tailored to local issues and opportunities
- IMP primary components
  - Goals and objectives
  - Action items
    - Non-regulatory
    - Regulatory (at least one SW and one GW control)
  - Monitoring plan
- Voluntary or mandatory IMPs



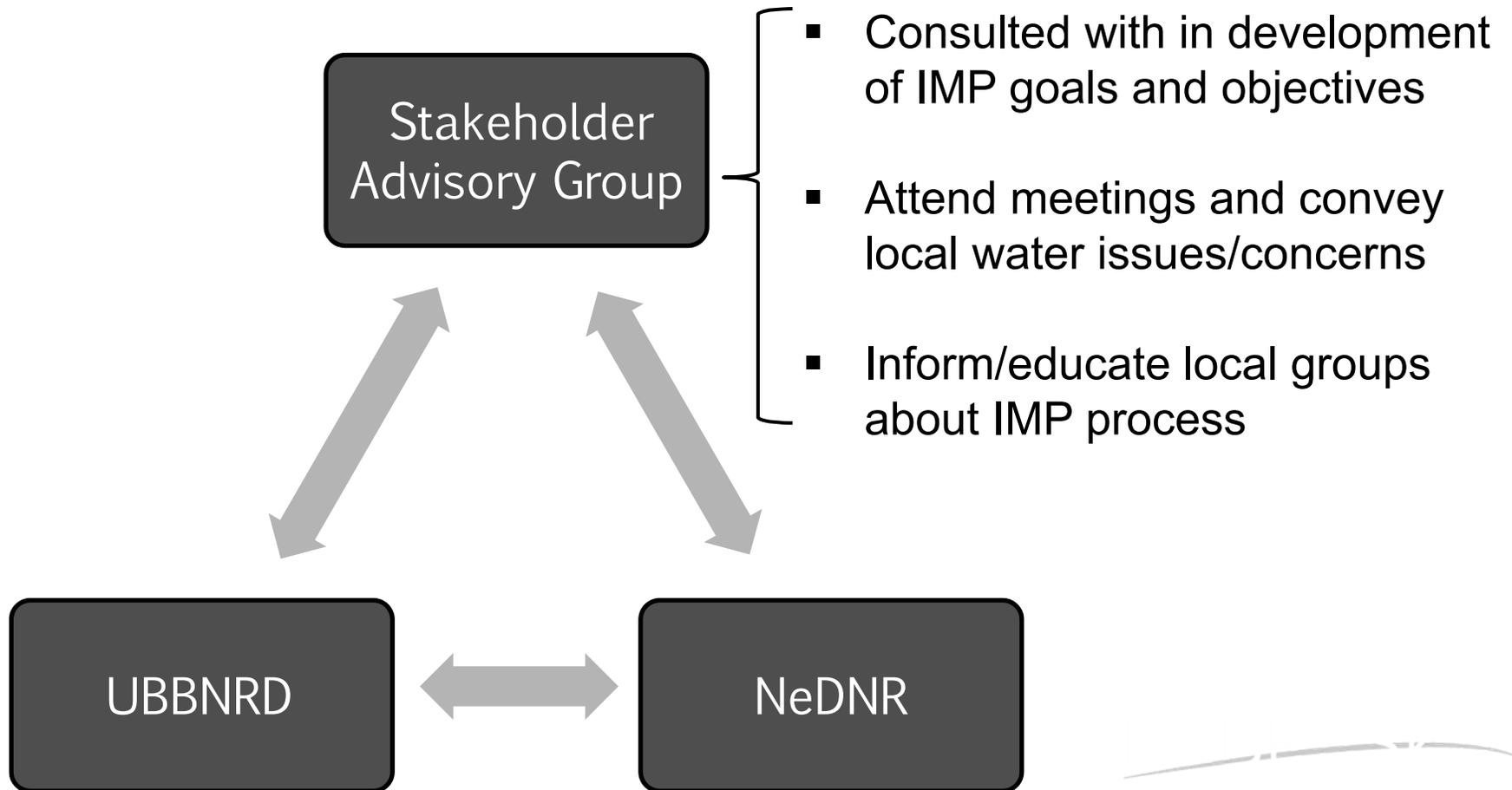
# Integrated Management Plans

Mandated IMP	Voluntary IMP
Overarching purpose: Achieve and sustain a balance between water uses and water supplies for the long term, protect existing water uses	
Statutory framework: Neb. Rev. Stat. §46-715 to §46-718	
Fully appropriated basins, sub-basins	Non-fully appropriated basins, sub-basins
<u>May</u> have more stringent controls	<u>May</u> have more “encouraging “ controls
Moratorium (GW, SW) initiated	No moratorium initiated

# Integrated Management Plans



# Integrated Management Plans





# Coordinated Water Quality and Quantity Planning: Challenges and Opportunities

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# Coordinated water quality and quantity planning: Challenges

- Statutory framework
  - Nebraska State Statutes for water quantity
  - Federal Clean Water Act for water quality
- Timelines
  - WQMP has less than 2 years to write/accept plan
    - NDEQ and EPA reviews for acceptance
  - V-IMPs may take 3 to 5 years
    - NeDNR and NRD agree to adopt

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# Coordinated water quality and quantity planning: Challenges

- Differing Funding Mechanisms
  - EPA funding for NDEQ plans
    - Plan development and project implementation
    - 40% non-federal match
  - NeDNR plans
    - NRD and NeDNR share cost of development & implementation
    - Various grants available for implementation (WRCF, WSF, NET, etc.)

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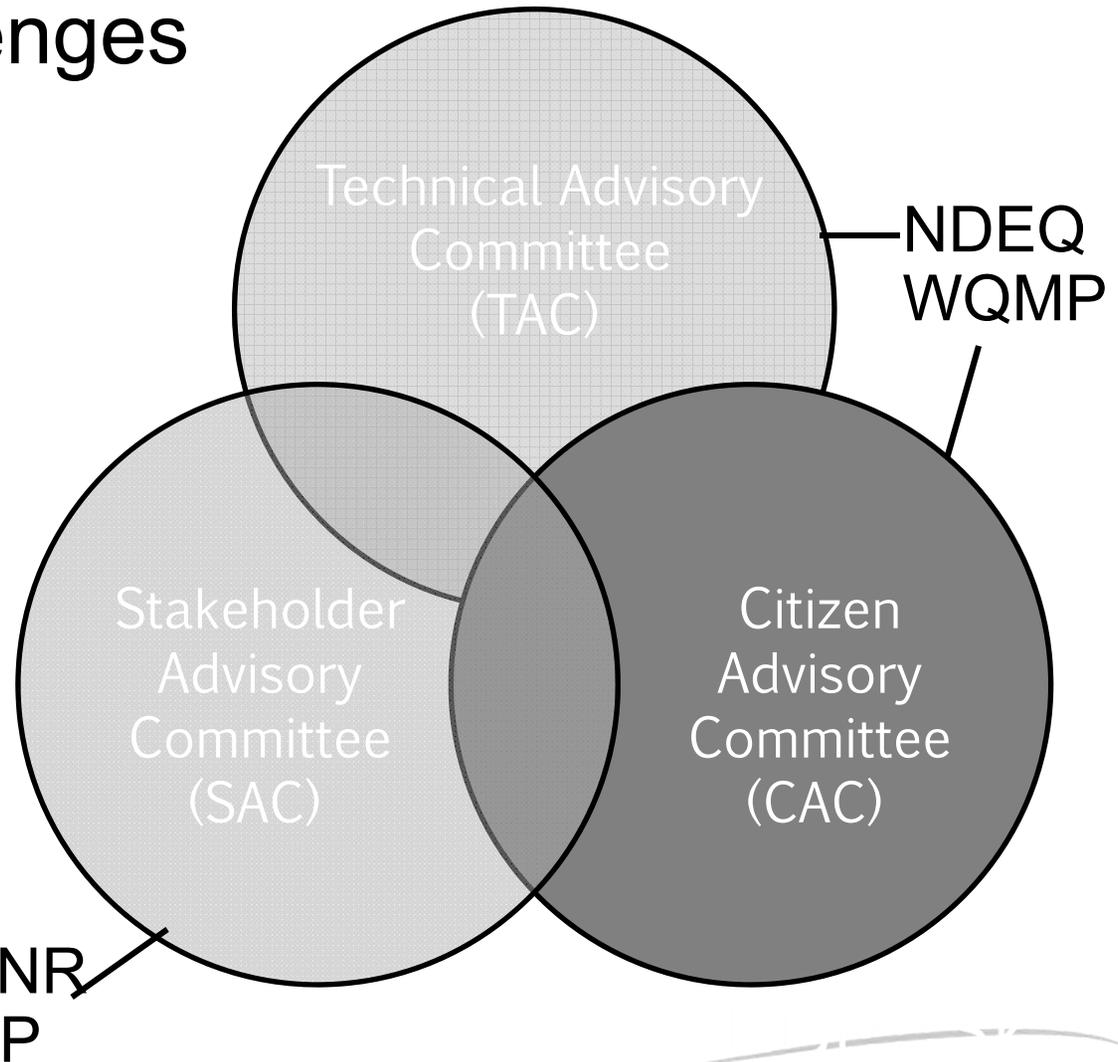
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# Coordinated water quality and quantity planning: Challenges

- Stakeholder groups
  - WQMP has two committees
    - TAC
    - CAC
  - V-IMP has one committee
    - SAC



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NeDNR  
V-IMP

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# Water Quality Management Plans Committees

- Technical Advisory Committee (TAC)
  - Generally, agency representatives
  - Input on WQMP, advise CAC
- Citizen Advisory Committee (CAC)
  - Town residents, land owners, producers
  - Input on WQMP, advocate plan in community

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# Voluntary Integrated Management Plan Committee

- Stakeholder Advisory Group (SAC)
  - Required interests listed in Neb. Rev. Stat. §46-717
    - Surface water irrigators
    - Municipalities
    - Other interests as deemed appropriate by the NRD and NeDNR, such as
      - Groundwater irrigators
      - Agricultural business
      - Wildlife interests

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# Coordinated water quality and quantity planning: Opportunities

- Improved communication with public and between agencies about multiple water plans
- Minimized redundancy in planning efforts
- Time/cost savings for NRD
- Complimentary goals and objectives between plans
- More holistic approach to water management
- Great learning opportunity for agencies/NRD

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# Coordinated Water Quality and Quantity Planning: The Upper Big Blue NRD Approach

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# Upper Big Blue WQMP and V-IMP- Coordination Approach

- Two separate plans (WQMP, V-IMP)
- Separate contracts for consultation services
- Potential common advisors (stakeholders) between plans
- NDEQ representative at V-IMP meetings, NeDNR representative at WQMP meetings
- Joint NRD, NDEQ, NeDNR coordination meetings throughout process

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## Questions?

Carla McCullough, MS

1200 N St., Suite 400

P.O. Box 98922

Lincoln, NE 68509

402-471-3382

[carla.mccullough@nebraska.gov](mailto:carla.mccullough@nebraska.gov)

Amy Zoller, MS

301 Centennial Mall South, 4<sup>th</sup> Floor

PO Box 94676

Lincoln, NE 68509-4676

402-471-0625

[amy.zoller@nebraska.gov](mailto:amy.zoller@nebraska.gov)





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# Thank You

Carla McCullough, MS

1200 N St., Suite 400

P.O. Box 98922

Lincoln, NE 68509

402-471-3382

[carla.mccullough@nebraska.gov](mailto:carla.mccullough@nebraska.gov)

Amy Zoller, MS

301 Centennial Mall South, 4<sup>th</sup> Floor

PO Box 94676

Lincoln, NE 68509-4676

402-471-0625

[amy.zoller@nebraska.gov](mailto:amy.zoller@nebraska.gov)

