

Lower Elkhorn NRD Voluntary Integrated Management Plan

Public Information Meeting
August 9, 2018
Norfolk, NE

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Overview of Presentation

- Background on IMPs
- Voluntary IMP Process
- Voluntary IMP Highlights
- Next Steps

Integrated Management Plan Background

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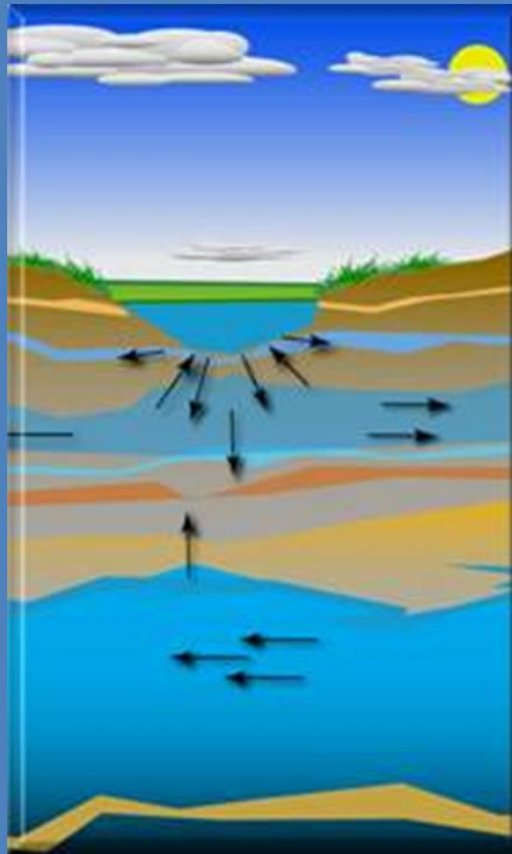
- What is an Integrated Management Plan (IMP)?
 - Represents a joint partnership between an NRD and the Nebraska Department of Natural Resources (NeDNR)
 - Water management plan that addresses both surface water and groundwater uses
 - Recognizes hydrologic connectivity
 - Adaptive management approach



Integrated Management Plan Background

- Different regulatory frameworks for groundwater (NRD) and surface water (NeDNR)
- Joint partnership results in more holistic water management

EFFECTIVE MANAGEMENT OF HYDROLOGICALLY CONNECTED WATERS



Surface Water Quantity

- Regulated by NeDNR
- Prior appropriations system

Integrated
Water
Management

Groundwater Quantity

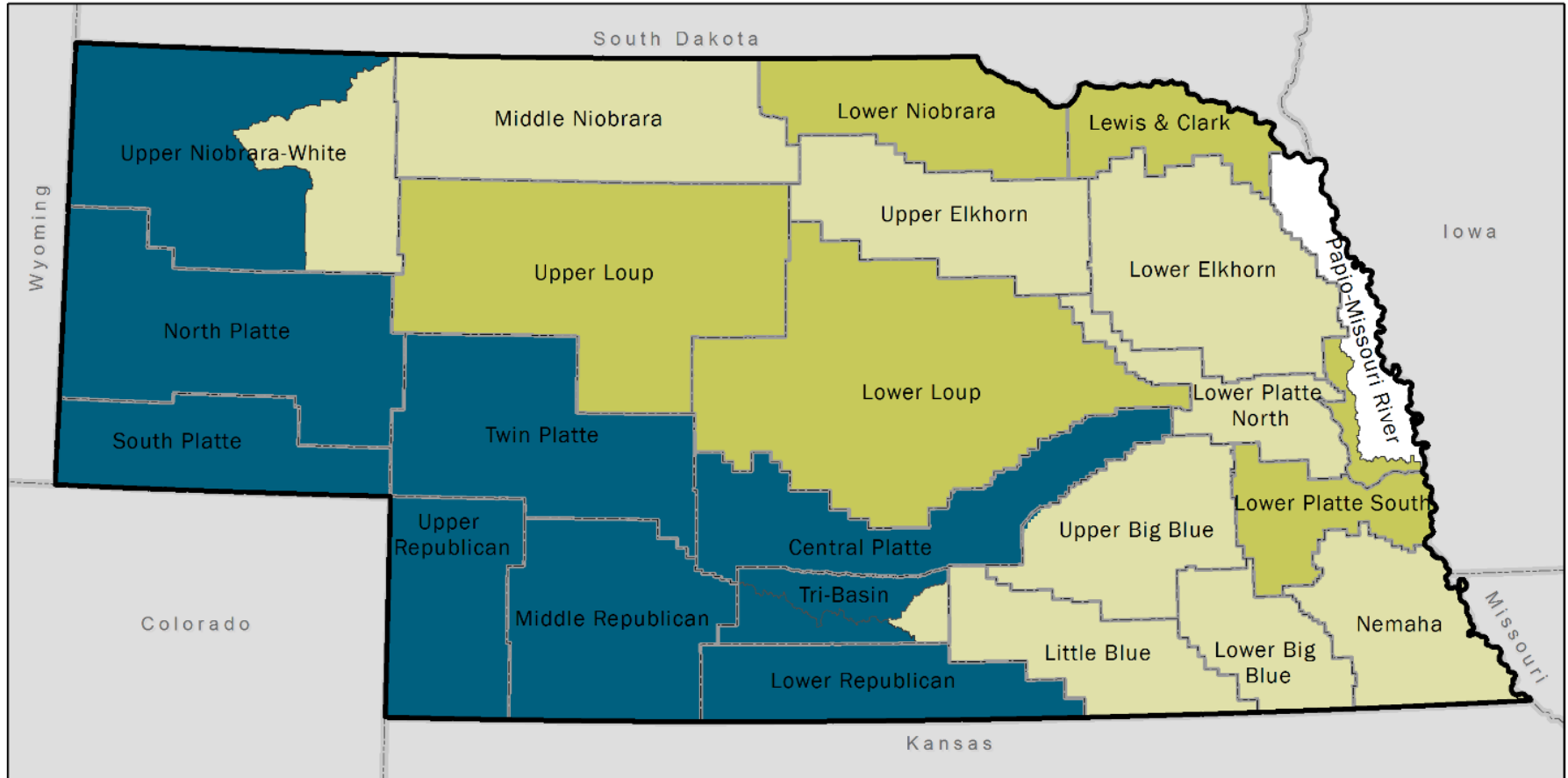
- Regulated by NRDs
- Correlative rights system

Integrated Management Plan Background

- Overarching purpose
 - Achieve and sustain a balance between water uses and water supplies for the long term
 - Protect existing water uses
 - IMPs can be either required or voluntary (this is voluntary)
- Legislative framework
 - Nebraska Groundwater Management and Protection Act (Neb. Rev. Stat. Chapter 46, Article 7)
 - LB962 (2004), LB764 (2010), LB1098 (2014)

Integrated Management Plan Background

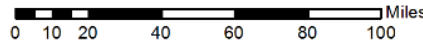
NRD Areas Involved in Integrated Management Planning



- Required, Approved
- Voluntary, In Development
- Voluntary, Approved
- Natural Resources District



Created by NeDNR, emj
Updated October 27, 2017



NEBRASKA

DEPT. OF NATURAL RESOURCES

Integrated Management Plan Background

- Why develop an IMP? (LENRD perspectives)
 - Proactive approach to long-term water resources management
 - Prior to change in Nebraska statute, IMPs were only developed in areas within the state determined to be fully or over appropriated
 - Mirrored efforts of the Lower Platte River Basin Coalition to develop a Basin Plan
 - Development of an individual plan would complement efforts to maintain local control of management of water resources within the District
 - Opens door to outside funds for local projects

Integrated Management Plan Background

- Why develop an IMP? (NeDNR perspectives)
 - Better understanding of local water use needs
 - Build a foundation of data and tools to better manage hydrologically connected waters
 - Establish framework for data acquisition and exchange
 - Adaptive management for changing conditions
 - Implement the Lower Platte Basin Water Management Plan

Integrated Management Plan Background

- Additional IMP benefits
 - Improved relationships
 - Improved data sharing
 - More local participation in planning
 - Avoid a “fully appropriated” designation (proactive)
 - Eligibility for Water Sustainability Fund
 - Educational

Integrated Management Plan Process



Turn of Events

- In March of 2012, the Lower Elkhorn NRD Board approved a motion to pursue development of a voluntary IMP
- Shortly thereafter, the Lower Platte North NRD approached the District with a proposal to share consultants to develop plans
- Districts share a boundary; conditions in the southern portion of our District would be common to the northern portion of their District – therefore a cooperative effort made logical sense

Coordination of Efforts

- The Lower Elkhorn NRD and the Lower Platte North NRD jointly solicited qualifications/proposals and cost estimates for:
 - 1) separate Draft Voluntary Integrated Water Management Plans
 - 2) joint coordination meetings for establishment of stakeholders committees
 - 3) establishment and facilitation of separate stakeholder meetings
 - 4) conduct individual Water Inventory Studies (for each respective District)
- Solicitation and evaluation of candidates would be a joint effort, but background data (between Districts) varied, therefore interested parties would submit separate bids to each District

Candidate Selection

- On February 7, 2014 the Lower Elkhorn NRD and Lower Platte North met in Columbus to conduct interviews with interested consulting firms
- After review of the presentations, the general consensus was to select Olsson Associates to coordinate development of each plan
- On February 27, 2014, the Lower Elkhorn NRD Board voted to accept the proposal from Olsson Associates, not to exceed \$188,050 (Karen Griffin, Project Manager, Olsson Associates)

Voluntary IMP Highlights

FINAL DRAFT
Lower Elkhorn
Natural Resources District
Voluntary Integrated Management Plan



Voluntary IMP Sections

- Authority and effective date
- Introduction
- Background
- Public participation
- Description of IMP area
- Goals, objectives and action items
- Controls
- Monitoring and reporting plan
- Incentive programs
- Funding options
- Review process and modifications
- Information considered in preparation

Authority/Effective Date and Introduction

- Provides reference to statutes dealing with development of a voluntary integrated management plan (IMP)
- Will include dates of adoption and effective date
- Discusses initiation process in 2012, including reference to copies of initiation letters (provided in Appendix A)

Background

- Provides context for voluntary IMP by discussing:
 - NeDNR’s annual Fully Appropriated Basins (FAB) evaluation and definition of hydrologically connected areas
 - IMPs and their relation to the FAB evaluation
 - Required components of an IMP
 - Requirements for stakeholder involvement in the development of IMPs
 - History of statutes concerning IMPs
 - Lower Platte Basin Water Management Plan

Public Participation

- Discusses stakeholder advisory committee, with representatives of:
 - Agriculture
 - Industry
 - Public water supply
 - Environment
 - Recreation
 - City and county officials
 - Technical advisors
- Outlines stakeholder advisory committee meetings, and their role in developing goals, objectives, and action items

LENRD Stakeholder Participants

- Candidates selected for inclusion included
 - Agriculture (5 area farmers included, dryland and groundwater irrigated crop farmers, livestock producers, surface water irrigator, farm group member and crop consultant service)
 - Industry (3 area individuals selected, 2 involved in the water well industry and 1 from local manufacturing industry)
 - Public water supply (4 selected, 3 from communities within the District (both large and small) and 1 representing a rural water district)
 - Environment/Recreation (3 selected)
 - City and county officials (2 selected)
 - Technical advisors (UNL, NDEQ, NHHS, UNL-CSD)
 - Domestic well owners (3 selected)
- Fifteen (15) to (21) members (preferred number), but final determination was made by each individual District

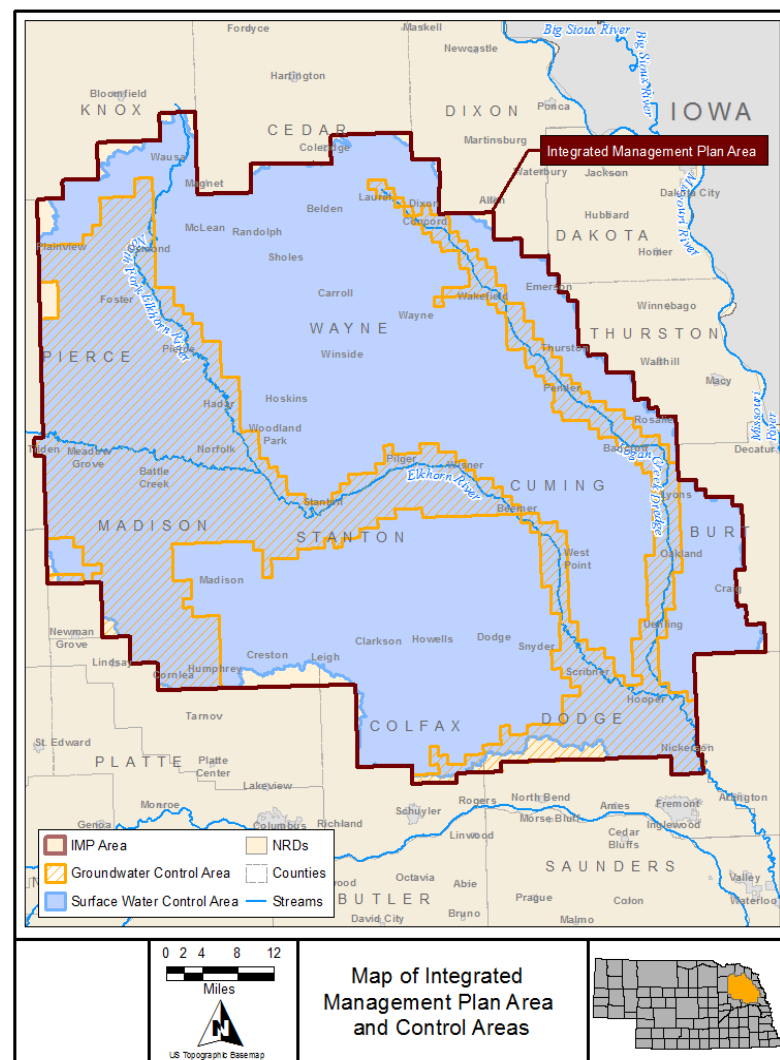
LENRD Stakeholder Participation

- Participate in five (5) meetings
- Provide insight to the NRD about issues and/or challenges from their individual perspective as water users
- Stakeholders help to shape the voluntary IMP by identifying priorities and action items and by helping to define other important components

Description of the Integrated Management Plan Area

- Describes and shows geographic extent of surface and groundwater control areas
- GW control area: hydrologically connected area*
- SW control area: portion of Elkhorn basin included within District boundaries

*The District and Department recognize that, as increased understanding of hydrologically connected areas becomes available through new data, models, and analyses, the defined control areas may change (and this map may need to be updated in the IMP)



Controls

Groundwater Controls (LENRD)

- District will limit new groundwater uses to 50% of the annually available stream depletion over the Basin Plan's first five-year increment, which concludes on December 31, 2021
- District will also require metering of high-capacity wells (over 50 gpm)
- Annual limits on new groundwater irrigated acres and metering of high capacity wells are controls that have been in place within the District

Controls

Surface Water Controls (NeDNR)

- Limits
 - Department will limit new surface water uses to 50% of the annually available stream depletion over the Basin Plan's first five-year increment, which concludes on December 31, 2021
 - Where the District has established a moratorium on new groundwater uses, the Department will coordinate with the District and determine when a moratorium on new surface water uses would assist in achieving a mutually beneficial water quantity goal
 - For approval of new surface water rights, the Department will continue to use evaluation criteria to determine whether or not a permit will be issued
- Methods of measuring surface water use
 - Require measuring devices on new permits for irrigation, industrial, or commercial uses pumping more than 50 gpm; and on existing and new surface water permits where the use is comingled and the District has established a rule/regulation on groundwater quantity where measuring quantity of surface water will assist in achieving a mutually beneficial water quantity goal
 - Voluntary reporting program for other existing surface water uses in the District, including voluntary reporting on unmetered irrigation diversions pumping more than 50 gpm and ongoing evaluation of necessity for mandatory installation of water flow meters on all surface water pumps for irrigation, industrial, and municipal uses

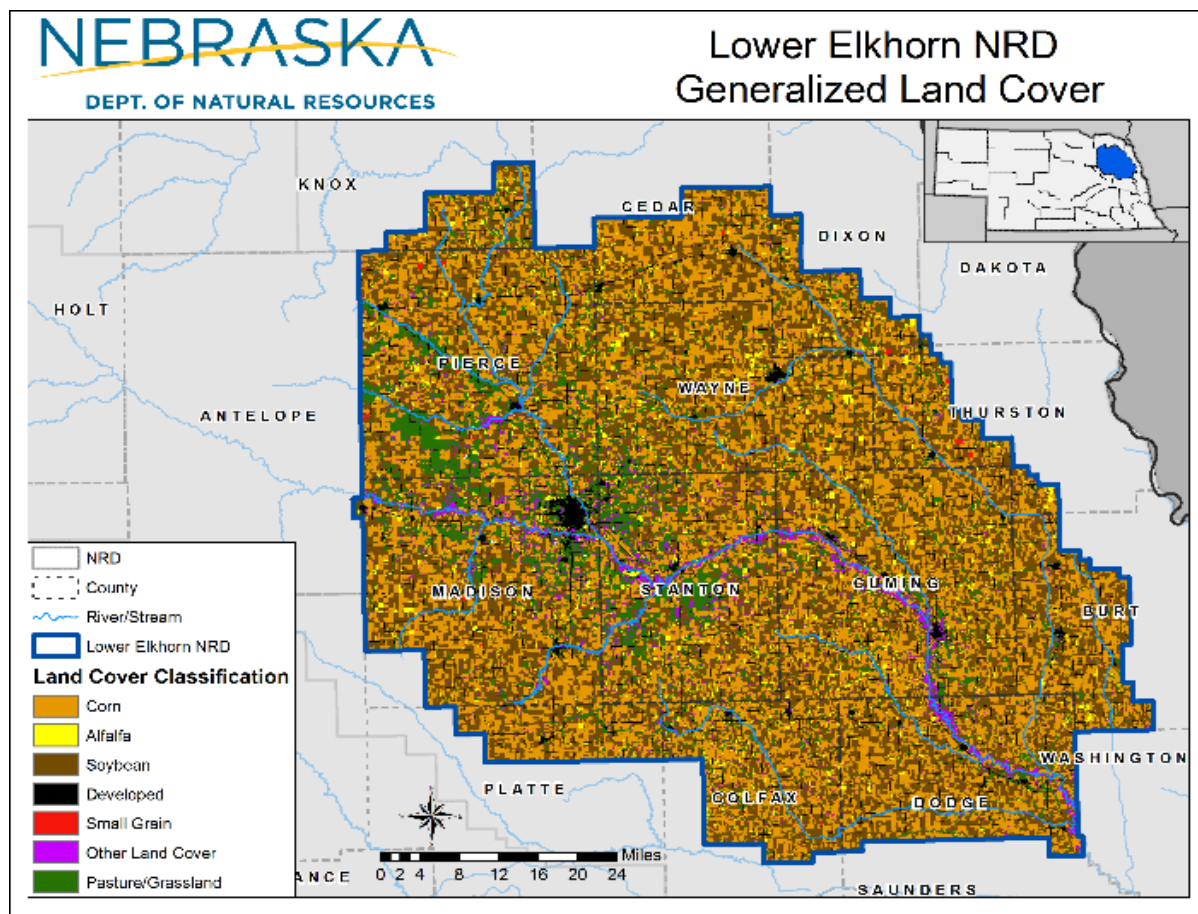
How allocations are calculated

Starting total allocation (both NeDNR and LENRD) = 4514 AF)

	NeDNR Portion	NRD Portion
Allocations	2257 AF	2257 AF
Permits issued 2016-2017 (depletions)	117 AF	223 AF
	TOTAL = 340 AF	
New allocations through 2021 = 50% of (total allocation – total used) = 0.5 x (4514 AF – 340 AF = 4174 AF)	2087 AF	2087 AF
(Example) permits issued 2018	150 AF	250 AF
	TOTAL = 400 AF	
New allocations through 2021 = 0.5 x (4174 AF – 400 AF = 3774 AF)	1887 AF	1887 AF

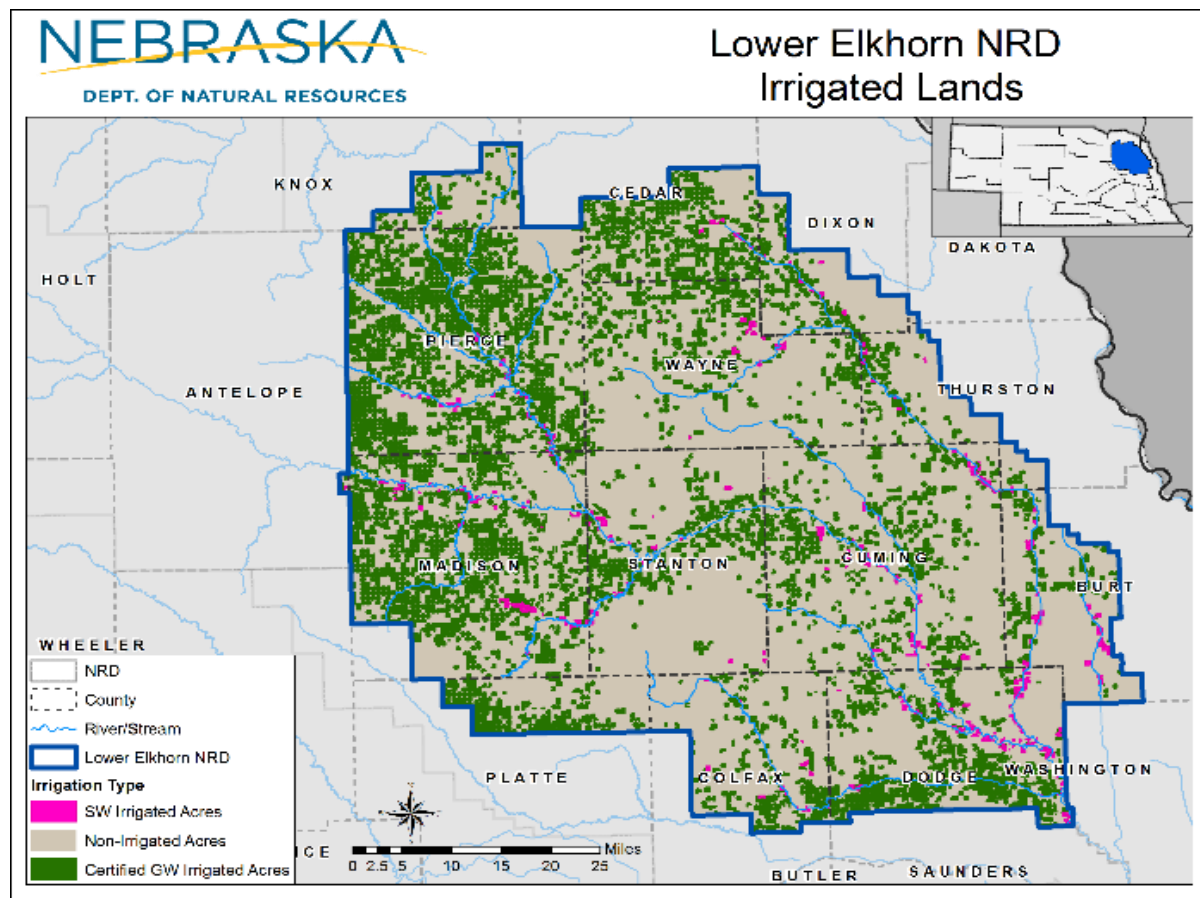
Description of the Integrated Management Plan Area (cont'd)

Describes land use as well as hydrology and surface and groundwater use



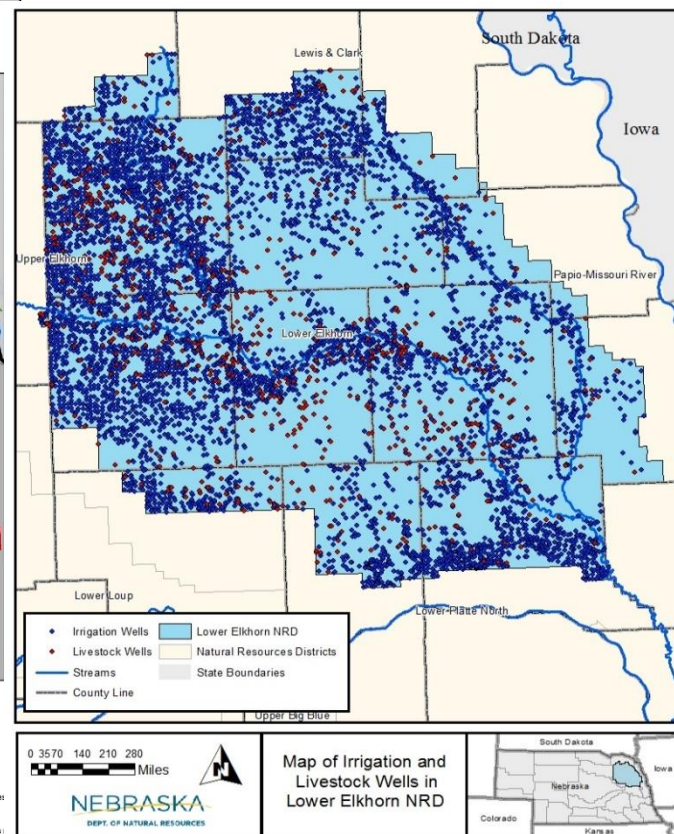
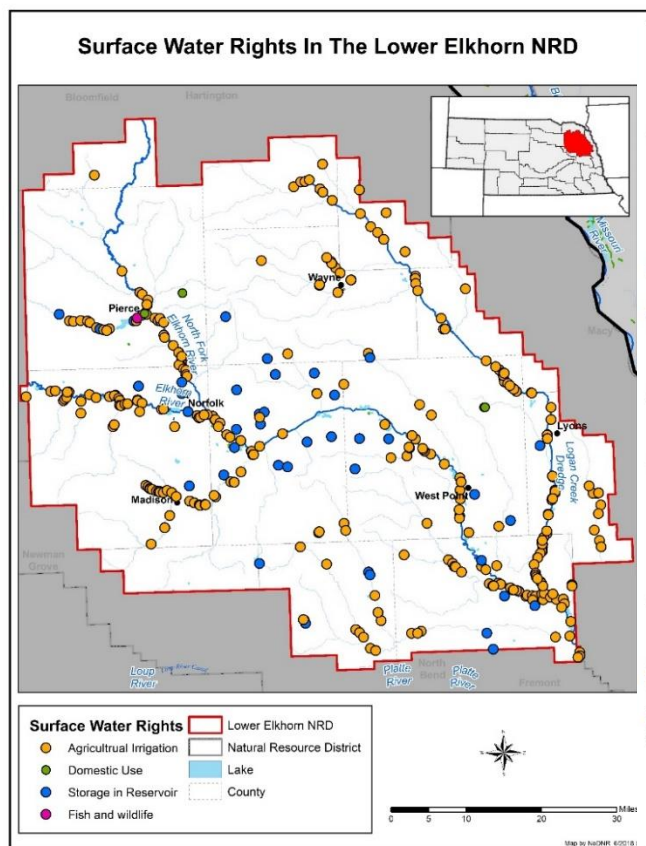
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Goals, Objectives, and Action Items

Goal 1

- Goal 1: Gain a better understanding of water resources
 - 1.1: Maintain a comprehensive inventory of data and information relevant to integrated water management consistent with the Basin Plan data formats
 - 1.2: Improve our understanding of the surface water and hydrologically connected groundwater system through data and information analyses
 - 1.3: For consistency with the Basin Plan, evaluate potential effects of coordination, innovation, and technology on the water inventory
 - 1.4: For consistency with the Basin Plan, evaluate variations in water inventory due to climate cycles

Goals, Objectives, and Action Items

Goal 2

- Goal 2: Sustain a balance between current and future water uses and supplies through water management strategies and projects
 - 2.1: Improve water availability through conjunctive water management
 - 2.2: Develop and implement additional management strategies to minimize impacts of future development on existing uses
 - 2.3: For consistency with the Basin Plan, continue to collaborate with state and local governments to identify opportunities to augment water supplies in the Lower Platte River Basin

Goals, Objectives, and Action Items

Goal 3

- Goal 3: Improve the public's understanding and participation in integrated water management
 - 3.1: Develop education materials to enhance understanding of integrated water management
 - 3.2: Use public education to enhance understanding of water conservation and best management practices
 - 3.3: Increase the adoption of conservation and best management practices through coordination and incentives

Goals, Objectives, and Action Items

Goal 4

- Goal 4: Support planning and management in the Basin and ensure consistency with the Basin Plan
 - 4.1: Collaborate with the Lower Platte River Basin Coalition (Coalition) for basin-wide water resources planning
 - 4.2: Coordinate with the Coalition and others to identify and implement water management projects and activities for basin-wide water management
 - 4.3: Review and assess instream flow needs; provide report at the annual Basin meeting
 - 4.4: For consistency with the Basin Plan, evaluate, understand, and develop policies to address impacts on stream flows of uses outside of management control

Monitoring and Reporting Plan District Responsibilities

- Groundwater level measurements
- Certification of groundwater uses and any changes to these
- Municipal, commercial, and industrial annual water uses
- Irrigation water use data acquired mandatorily or voluntarily
- Stream gage measurements on District-maintained gages
- Water well construction permits issued (including geographic location per BWP)
 - Depletion calculated (including method) for each new well
 - Estimated total consumptive use for each new well
- Number of well permits denied
- Variances granted that allow an action contrary to existing rule/regulation
- Transfer permits
- Retirement of agricultural, municipal, or industrial groundwater consumptive use
- Information on any mitigation or new projects
- Stream flow accretion activities
- Water banking activities
- NRD regulations/management activities
- New depletions accounting report
- New data collected or model/study results

Monitoring and Reporting Plan Department Responsibilities

- Irrigation surface water use
- Municipal and industrial surface water use
- New surface water appropriations granted
- New groundwater permits issued
- Stream gage measurements from Department-maintained gages
- Transfers/cancellations of surface water appropriations
- Surface water administrative actions taken
- New depletions accounting report
- New data collected or model/study results

Incentive Programs and Funding Options

- District and Department will explore grant programs to fund cost-share incentives for voluntary installation of flow meters on surface water irrigation systems, and evaluate other cost-share incentive programs that promote water conservation practices
- Funding options identified to implement action items include federal (NRCS programs, Bureau of Reclamation), state (Environmental Trust, Department of Environmental Quality, Game and Parks Commission, NeDNR), and local (levy authority and occupation tax)

Review Process and Modifications

- Annual review in conjunction with basin-wide plan review to evaluate progress on implementation
- Action items reviewed to determine if fulfilling goals and objectives
- Amendments require agreement by both parties, and may require reconvening stakeholder advisory committee; if amendments needed, District and Department will hold joint public hearing and issue orders to formally adopt revised IMP

Next Steps



Next Steps: Tentative Schedule

- Public Information Meeting (August 9)
- Public Hearing (August 23)
 - Three weeks of public noticing (started July 26)
- IMP adoption process
 - NRD/NeDNR consider testimony (early September)
 - If IMP is adopted, three weeks of noticing for orders (IMP and controls)
- IMP becomes effective and implementation begins (October 2018)

IMP Available Online

- LENRD Website
 - <http://www.lenrd.org/latest-news/>
- NeDNR Website
 - <https://dnr.nebraska.gov/water-planning/lower-elkhorn-nrd>
- Copies may be requested at either office

Questions/Discussion

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