UPPER PLATTE BASIN-WIDE PLAN & SPNRD INTEGRATED MANAGEMENT PLAN

Pre-Hearing Information Session

July 17, 2019
HOW DID WE GET HERE?

Statutory Authority & Requirements
INTEGRATED MANAGEMENT AND BASIN-WIDE PLANNING

- Legislative Bill 962 (2004)
  - Required development and implementation of IMPs & BWPs
  - Plans developed in collaboration and consultation with water users

- Nebraska Groundwater Management and Protection Act
  - *Nebraska Revised Statutes* 46-715 – 46-719 referenced in this presentation
Integrated Management Plan and Basin-Wide Plan

The plan shall include, “Clear goals and objectives with a purpose of sustaining a balance between water uses and water supplies so that the economic viability, social and environmental health, safety, and welfare of the basin can be achieved and maintained for both the near term and the long term.”
### BASIN-WIDE & INTEGRATED MANAGEMENT PLANS

<table>
<thead>
<tr>
<th>Basin-Wide Plan</th>
<th>Integrated Management Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>- All basin NRDs &amp; NeDNR</td>
<td>- 1 NRD &amp; NeDNR</td>
</tr>
<tr>
<td>- Overappropriated Area</td>
<td>- Overappropriated and fully appropriated areas</td>
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<tr>
<td>- Goals &amp; objectives</td>
<td>- Goals, objectives, &amp; controls</td>
</tr>
<tr>
<td>- Focused on regional, cross-boundary issues and opportunities</td>
<td>- Specific to one NRD</td>
</tr>
<tr>
<td>- Consistency and collaboration among basin NRDs</td>
<td>- Tailored to local issues and opportunities</td>
</tr>
<tr>
<td>- A broad framework</td>
<td>- Specific targets and actions</td>
</tr>
<tr>
<td></td>
<td>- Required to include:</td>
</tr>
<tr>
<td></td>
<td>- Map of area subject to IMP</td>
</tr>
<tr>
<td></td>
<td>- Groundwater &amp; surface water control</td>
</tr>
<tr>
<td></td>
<td>- Monitoring plan</td>
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</tbody>
</table>
On September 15, 2004, the Nebraska Department of Natural Resources issued an Order designating the Platte River Surface Water Basin upstream of the Kearney Canal Diversion as overappropriated. This map represents the area designated as overappropriated as well as the area within the overappropriated surface water basin where groundwater is hydrologically connected to surface water.
Plans are collaborative, incremental, and adaptive
PROPOSED UPPER PLATTE BASIN-WIDE PLAN

Goals & Objectives
Goal 1: Incrementally achieve and sustain a fully appropriated condition, while maintaining economic viability, social and environment health, safety, and welfare of the basin

Objective 1.1 Maintain previous increment mitigation progress

Objective 1.2 Offset impacts of streamflow depletion to (A) surface water appropriations and (B) water wells constructed in aquifers dependent on recharge from streamflow to the extent those depletions are due to water use initiated after July 1, 1997

Objective 1.3 Make progress toward a fully appropriated condition

Objective 1.4 Conduct technical analyses to support and evaluate effectiveness of the plan and adequacy in sustaining progress toward a fully appropriated level of water use

Objective 1.5 Use available funds and actively pursue new funding opportunities to offset depletions, as well as to develop, maintain and update data and analytical tools needed to implement this plan

Objective 1.6 Update and continue implementing IMPs in each Platte River Basin NRD
**Goal 1:** Incrementally achieve and sustain a fully appropriated condition, while maintaining economic viability, social and environment health, safety, and welfare of the basin

**Objective 1.3 Make progress toward a fully appropriated condition**

- 1.3.1: Understand the economic impacts of supply variability on water users
- 1.3.2: Assess short- and long-term basin water supply and demand
- 1.3.3: Explore and implement potential measures to mitigate impacts (hydrologic and economic) of basin supply variability due to human-made depletions on surface water and groundwater users
- 1.3.4: Develop a basin drought contingency plan for management of supplies during times of shortage
Goal 2: Prevent or mitigate human-induced reductions in the flow of a river or stream that would cause non-compliance with an interstate compact or decree or other formal state contract or agreement

Objective 2.1 Prevent human-induced streamflow depletions that would cause non-compliance by Nebraska with the Nebraska New Depletion Plan included within the Platte River Recovery Implementation Program, for as long as the Program exists.
Goal 3: Partner with municipalities and industries to maximize conservation and water use efficiency

Objective 3.1 Continue to collect data on water use and existing conservation plans of municipalities and industries within the basin

Objective 3.2 Invite municipalities and industries to the annual meetings

Objective 3.3 Establish baseline water use levels for each municipal and industrial user by January 1, 2026
Goal 4: Work cooperatively to identify and investigate disputes between groundwater users and surface water appropriators and, if determined appropriate, implement management solutions to address such issues

Objective 4.1 Identify disputes between groundwater users and surface water appropriators

Objective 4.2 Investigate and address issues between groundwater users and surface water appropriators, based on investigation results
Goal 5: Keep the Upper Platte River Basin-Wide Plan current and keep stakeholders informed

Objective 5.1 Meet at least annually to review progress toward achieving the goals and objectives of this Upper Platte River Basin-Wide Plan and those portions of the individual NRD IMPs that implement this plan

Objective 5.2 Improve information sharing with interested stakeholders

Objective 5.3 Conduct planning for subsequent increments of the plan, as necessary
PROPOSED SPNRD IMP
Integrated Management Plan (Proposed)

1. EFFECTIVE DATE
2. AUTHORITY
3. BACKGROUND
4. MAPS AND MANAGEMENT AREA BOUNDARIES

Figure 1

Figure 2

Figure 3
Integrated Management Plan (Proposed)

5. VISION STATEMENT

6. FUNDING

7. SCIENCE AND METHODS
   7.1 First Increment
   7.2 Second Increment
   7.3 Information Considered in Developing this IMP

8. FIRST INCREMENT ACCOMPLISHMENTS
   8.1 Studies Conducted and Information Obtained
   8.2 Management Actions Taken
   8.3 Assessment of the First Increment (2019 Robust Review)
   8.4 Assessment of Fully Appropriated
   8.5 Basin-Wide Coordination
Integrated Management Plan (Proposed)

Goal 1: Reach and Maintain a Fully Appropriated Condition

To incrementally achieve and sustain a fully appropriated condition while maintaining economic viability, social and environmental health, safety, and welfare of the basin.

Objective 1.1 Within this increment of this IMP, implement measures to address impacts of streamflow depletions to surface water appropriations and water wells constructed in aquifers dependent upon recharge from streamflow to the extent those depletions are due to water use initiated after July 1, 1997.

Objective 1.2 Maintain previous increment mitigation progress

<table>
<thead>
<tr>
<th>Year</th>
<th>South Platte River (AF)</th>
<th>Lodgepole Creek (AF)</th>
<th>North Platte River (AF)</th>
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<tbody>
<tr>
<td>2019</td>
<td>200</td>
<td>4,300</td>
<td>0</td>
</tr>
<tr>
<td>2020</td>
<td>200</td>
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<td>2029</td>
<td>200</td>
<td>4,500</td>
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<th>South Platte River (AF)</th>
<th>Lodgepole Creek (AF)</th>
<th>North Platte River (AF)</th>
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<tbody>
<tr>
<td>2059-2063 Average</td>
<td>100</td>
<td>5,000</td>
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</table>
Integrated Management Plan (Proposed)

Goal 1: Reach and Maintain a Fully Appropriated Condition

To incrementally achieve and sustain a fully appropriated condition while maintaining economic viability, social and environmental health, safety, and welfare of the basin.

Objective 1.3 Make progress toward a fully appropriated condition.

Objective 1.4 Review the implementation of this IMP to ensure that the IMP provisions are adequate to sustain progress toward and/or maintain a fully appropriated condition.

Objective 1.5 Once a fully appropriated condition is achieved, maintain such condition through the implementation of the IMP.
Integrated Management Plan (Proposed)

Goal 2: Interstate Compliance

Prevent or mitigate human-induced reductions in the flow of a river or stream and ensure that no act or omission of the SPNRD or NeDNR would cause noncompliance by Nebraska with any interstate decree, compact, or other formal state contract or agreement pertaining to any ground water or surface water use or supplies.

Objective 2.1 Ensure that no act or omission of the SPNRD or the NeDNR would cause noncompliance by Nebraska with the NNDP included within PRRIP, for as long as PRRIP exists.

Objective 2.2 Ensure that the groundwater and surface water controls adopted in the District IMP are sufficient to ensure that the state will remain in compliance with the NNDP.

Objective 2.3 Collectively, as defined in the NNDP, offset the new depletions caused by new uses within the Upper Platte River Basin NRDs.

Objective 2.4 Ensure that for post-1997 new or expanded uses, including irrigation, municipal, industrial, rural domestic and other new water related activities are assessed and offset for compliance with the NNDP. This assessment will be part of the Robust Review, explained in Section 10.7.3 of this plan.
Integrated Management Plan (Proposed)

Goal 3: Consistency, Communication, and Updates

Keep the IMP current, maintain consistency with the Basin-Wide Plan, and keep water users informed.

Objective 3.1 Amend this IMP as needed to remain consistent with the Basin-Wide Plan.

Objective 3.2 Participate in basin-wide planning activities.

Objective 3.3 Improve information sharing with interested parties.

Objective 3.4 Conduct planning for subsequent increments of the IMP, as necessary.

Objective 3.5 If appropriate and necessary, follow the dispute resolution process in the Basin-Wide Plan.

Objective 3.6 The SPNRD and the NeDNR will communicate with the states of Wyoming and Colorado to address water management concerns that affect the SPNRD.
Integrated Management Plan (Proposed)

10. **ACTION ITEMS**

10.1 **Information and Education Programs**

10.2 **Incentive Programs**

10.3 **Water Banking**

10.4 **Conjunctive Management**

10.5 **Drought Planning**

10.6 **Controls and Triggers**

10.6.1 **Ground Water Regulatory Actions**

10.6.2 **Triggers**

10.6.3 **Surface Water Regulatory Actions**
10. ACTION ITEMS (continued)

10.7 Monitoring and Evaluation
   10.7.1 Data and Tracking of Water Use Activities
   10.7.2 Reporting
   10.7.3 Evaluation: Measuring the Success of Meeting the Goals and Objectives of this IMP
   10.7.4 Evaluation: Measuring the Success of Reaching a Fully Appropriated Condition
   10.7.5 Evaluation: Measuring the Success of Maintaining a Fully Appropriated Condition
   10.7.6 Evaluating the Need for a Subsequent Increment

10.8 Studies for Current Increment

10.9 Review of and Modifications to the IMP
NEXT STEPS
## Plan adoption schedule

<table>
<thead>
<tr>
<th>DATE:</th>
<th>July 15 – July 19 All NRD Hearings</th>
<th>Following the hearings</th>
<th>Aug 6</th>
<th>Aug 6</th>
<th>Aug 12</th>
<th>Aug 12 – Sep 1</th>
<th>September 11</th>
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<tbody>
<tr>
<td>July 17 SPNRD</td>
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<tr>
<td><strong>Basin-Wide Plan</strong></td>
<td>Pre-Hearing Info Session: 1:00 pm MT</td>
<td>BWP Hearing: 1:30 pm MT</td>
<td>NRD/NeDNR consider testimony</td>
<td>Final Board Agreement</td>
<td>Final NRD/NeDNR Agreement</td>
<td>Final draft of BWP and IMP available to public</td>
<td>Notice of Order</td>
</tr>
<tr>
<td><strong>Integrated Management Plan</strong></td>
<td></td>
<td>IMP Hearing: 2:00 pm MT</td>
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<td>IMP Effective and Second Increment Begins</td>
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THANK YOU
Modeled SPNRD Groundwater-only Irrigation and M&I Impacts to the South Platte River
Modeled SPNRD Groundwater-only Irrigation and M&I Impacts to Lodgepole Creek

Streamflow Depletions (acre-feet)

-45,000
-40,000
-35,000
-30,000
-25,000
-20,000
-15,000
-10,000
-5,000
0


Pre-1997 Development Impacts
All Development Impacts