

SPNRD Stakeholder Meeting #3 Minutes

Project: Stakeholder Advisory Committee Meeting to Jointly Develop 2nd Increment Integrated Management Plan (IMP) with South Platte NRD and Nebraska Department of Natural Resources (NeDNR)

Subject: Stakeholder Meeting #3

Date: Wednesday, November 14, 2018 from 1:00 p.m. – 4:00 p.m

Location: Western Nebraska Community College
371 College Drive, Sidney, NE

1. Welcome

- a. Open Meeting Act and Safety Issues
 - i. Bill Halligan, Chairman of the South Platte Natural Resources District (SPNRD) Board of Directors and a member of the Natural Resources Commission, opened the meeting at 1:00 p.m. MDT by stating a copy of the Open Meetings Act was in the room and notice of the meeting was published in the Sidney Sun Telegraph (Attachment A).
 - ii. Stephanie White (HDR), Facilitator, went over the agenda (Attachment B), and safety procedures.

2. Administration

- a. August Meeting recap, Beth Eckles, NeDNR. Minutes of the August Meeting are posted online.
 - i. Discussion of Regulatory and non-Regulatory Actions that SPNRD Board has taken.
 - ii. 2nd Increment of IMP – Should there be distinctions in management of South Platte River, Lodgepole Creek and North Platte River
 - iii. Presentation of Robust Review by NeDNR
- b. Copies of presentations were handed out and are attached to these minutes (Attachment C).
- c. Attendance sheet is attached to these minutes (Attachment D)

3. Collaboration with Adjacent States Issue

Guest speakers from the State of Wyoming: Brian Pugsley, Jeremy Manley, and Adam Skadsen.

- a. Jeremy Manley, Wyoming State Engineer's Office (SEO), Groundwater Division, reviewed the history of the control area as it was recognized and how it was implemented.
 - i. Laramie County, located in the south-east corner of Wyoming was designated by Wyoming's "Board of Control" as being a "critical area" then subsequently subject to a "control area." The impetus for this action was from conflict between water users, due to draw-down of the groundwater supply. Wyoming's "Board of Control", is a quasi-judicial group made up of 5 people; the State Engineer, and four water commissioners.
 - ii. After several temporary actions, this control area was implemented by an Order issued by the SEO on April 1, 2015, for all "high production wells" (pumping 25 gpm or more).

- iii. In Wyoming, groundwater wells are under the prior appropriation system, with uses for humans and livestock having preference over other uses, and therefore domestic and livestock wells are not subject to the limitations set out in this control area.
 - iv. Some of the controls include: (1) Adjudication of existing underground water appropriations; (2) Installation of flow meters and production reporting and (3) Evaluation of the effects of the first three years of implementation of the Control Area Order (Order).
- b. Adam Skadsen, with the with Wyoming State Engineer's Office (SEO), Hydrographer and Board of Control Commissioner provided an overview of the adjudication of the appropriations and well inspections.
- i. Due to several factors, the process can be lengthy. The Board of Control meets semi-annually to review groundwater adjudications state-wide. Underground water appropriations are quantified and mapped. Any changes to those criteria must go through a process to be consistent with current use. Missing a deadline may cause the appropriation to be subject to "foreclosure."
 - ii. Adam described the meter installation and inspections conducted to date. Over 600 wells are affected by the Order. Most inspections have been completed, and over one-hundred wells have been "regulated off".
 - iii. The presenters shared the State's data collection and reporting efforts, water administration for groundwater and surface water.
- c. Adam discussed the Crow Creek area where ground and surface water are considered hydrologically connected.
- i. Their efforts are to determine the connectivity of the water by increased streamgage locations and observation well data. The hydrographers have the authority to shut off wells that interfere with senior right holders.

4. Overview of Basin-Wide Plan.

Stephanie reviewed the goals and objections of the Basin-Wide Plan and encouraged the group to think about how they apply to the District.

a. Total Depletions.

- i. Jennifer Schellpeper, NeDNR presented a recap of the robust review results, the new total depletions modeled data, the three goals of the robust review, how the two runs of the Western Water Use Model (WWUM) were set up, and how this related to the total depletions results. Results from the total depletions model runs start in 1953 when groundwater pumping began and extrapolate out to 2063. Jen provided the numbers from the model, comparing the total depletions to the robust review. The purpose of this review of total depletions is to allow stakeholders to view lag of the total depletions beginning in 1954, rather than only from 1997, as shown in the robust review. The management actions are included in this total depletions presentation to show the positive impacts extrapolated into the future. This analysis was done so that the group might consider what becoming a fully appropriated condition might take.
- ii. Impacts to streamflow in 3 basins were presented: Lodgepole Creek, South Platte River and North Platte River. Jennifer reviewed the results depicting groundwater uses' (groundwater only irrigation and municipal use) impacts to the stream from post 1997 management changes and canal recharge events. The modeled data was extrapolated out to year 2063, and it shows impacts to streamflow in the North Platte River Basin are zero, and both the South Platte River and Lodgepole Creek show accretions (positive effect) to streamflow.

- iii. A second scenario was run depicting streamflow impacts of (groundwater only irrigation and municipal use) using data beginning in 1953. Crop type, number of acres irrigated, and changes in pumping data are used. This and in addition to the metered pumping data were used to extrapolate into the future the total streamflow depletions.
- iv. Jennifer explained that although these total depletions are not statutorily required to be offset, they might indicate a level to which a fully appropriated condition might be achieved. Discussion occurred explaining a lag in actions that affect the streams and can take over 50 years to fully see results or impacts. Regarding Lodgepole Creek specifically, the geology is complex in this area. It takes such a long time to see the impacts from the long-term depletions.
- v. Rod asked the group if they wanted to do more than maintain current actions.
 - 1. Stakeholder comments include caution in making changes and to consider economic impact for reduction in irrigation water. Stakeholders did acknowledge that a goal of the basin is to be Fully Appropriated so that a holding pattern may be appropriate for this increment, but not necessarily for the subsequent ones. The Drought Contingency Plan was also brought up as a tool that will hopefully help reduce depletions.

5. Second Increment Discussion.

a. Municipal and Industrial Use Accounting.

- i. Ryan Reisdorff, with SPNRD presented the changes that the District will implement in the new IMP. A summary of the changes include, (1) Accounting year is changing from an August 1 to July 31st, to calendar year, January 1 to December 31st; (2) All municipalities and industries will have a five year accounting period after 2026, (3) Municipal baselines could change in 2026, (4) SPNRD will not be responsible for offsetting uses over the municipal and industrial baselines after 2026, and (5) Removal of the requirement for municipal water conservation plans after 2026. Ryan provided a handout (Attachment E) addressing the changes in the statute regarding municipal offsets.
- ii. Discussion was around the 25MG/Year cushion to an industry baseline before an offset that Industries will have. The group was reminded that in obtaining the required transfer permit, the SPNRD will assist municipalities when a new industry comes in that would use more than 25MG/Year.

b. Drought Mitigation Plan.

- i. Rod directed the group to Action Item 1.3.4 which outlines the requirement of the NRDs to develop a drought contingency plan. He explained that each NRD in the Upper Platte River Basin will be required to develop a drought plan. Due to some dry years, the NRD had previously considered the need for drought planning. The SPNRD had identified the wells in the Brule formation for discussion of a drought plan, which didn't have public support at that time. Rod explained that the perception of drought management is shifting from an insurmountable task to now a management risk. He suggested using the County Advisory Committee members for initiation of the plan. Rod provided some of the initial questions to ask the producers for their feedback, the uses and benefits of a drought plan and how it would be accomplished.

- ii. Stakeholder commented that the area is doing well due to allocations already as a drought planning tool and changes in agriculture practices such as maintaining stubble. Attitude and awareness is important. The general consensus was that drought plan is a good thing.
- c. Stakeholder comments on IMP and going forward
 - i. The stakeholders would like the draft of the IMP before the meeting. Discussion in regards to a 3-year vs a 5-year allocation for agriculture was to stay with 3-year. The development of the Drought Mitigation Plan will happen after the IMP is in place.

6. Public Comment. None.

7. Meeting adjourned: 3:24 p.m.

8. Next Meeting: January 16, 2019.

9. Attachments to Minutes:

Attachment A- Affidavit of Publication of Notice of Meeting

Attachment B- Agenda

Attachment C- Copies of all presentations

Attachment D- Copy of attendance sheet

Attachment E – Municipal and Industrial Uses Accounting Handout

PROOF OF PUBLICATION

STATE OF NEBRASKA
COUNTY OF DEUEL } ss.

Amount \$ 1178

Date Paid

I, Michael D. Talbott, hereby certify that I am publisher of The Chappell Register, a legal weekly newspaper, of general circulation, published in said Deuel County and State of Nebraska; and further certify that the notice, of which the one attached is a true copy, was published in the regular and entire issue of each number of the said The Chappell Register

for 1 consecutive issues, the first publication being
on the 8th day of Nov. 2018
and the last publication being on the day of 20 day of

SUBSCRIBED in my presence and sworn to before me this day of
Nov 2018

PUBLIC NOTICE

The South Platte NRD and the Nebraska Department of Natural Resources (NEDNR) will hold a Stakeholders Advisory Committee meeting on Wednesday, November 14, 2018, beginning at 1:00 PM (Mountain Time) at Western Nebraska Community College, 371 College Drive, Sidney, Nebraska. The purpose of the meeting is to discuss and develop goals and objectives to support the second increment of the jointly developed integrated management plan. The public is welcome to attend this stakeholder meeting; there will be opportunity for public comment toward the end of the meeting. Individuals with disabilities may request auxiliary aids and services necessary for participation by contacting Beth Eckles at the Nebraska Department of Natural Resources, telephone 402-471-0661 or by email at beth.eckles@nebraska.gov, before 5 p.m. Central Time.

AFFIDAVIT OF PUBLICATION

The undersigned, being duly sworn deposes and says that he is a Principal Clerk of the SIDNEY SUN-TELEGRAPH, a bi-weekly newspaper of general circulation in Cheyenne County, State of Nebraska, and that a notice entitled:

Stakeholders Meeting

a true copy of which is hereto attached and made a part hereof, was published in said newspaper 1 consecutive week(s)

the first publication having been made the

9 day of November 2018

and the last publication having been made the

7 day of November 2018

that said newspaper has been published bi-weekly in the English language at the City of Sidney, within said county and state for more than fifty-two consecutive weeks, immediately prior to the first date of publication above, and twice every week successively since that day, and during all said times has had and now has a bona fide circulation of more than 300 copies weekly and during all said time has been and now is printed in whole or in part in an office maintained by the Publishers at the said place of publication.

Jane Farrell

Subscribed in my presence and sworn to before me this 7 day of November 2018

Jennifer D. Alexander
Notary Public

My commission expires 11-1-20
JENNIFER D. ALEXANDER
My Comm. Exp. November 1, 2020
(SEAL)

L18-692
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[Published in the Sidney Sun-Telegraph on, November 7, 2018]

RECEIVED
NOV 09 2018
SOUTH PLATTE NRD

PUBLIC NOTICE

The South Platte NRD and the Nebraska Department of Natural Resources (NeDNR) will hold a Stakeholders Advisory Committee meeting on Wednesday, November 14, 2018, beginning at 1:00 PM (Mountain Time) at Western Nebraska Community College, 371 College Drive, Sidney, Nebraska. The purpose of the meeting is to discuss and develop goals and objectives to support the second increment of the jointly developed integrated management plan. The public is welcome to attend this stakeholder meeting; there will be opportunity for public comment toward the end of the meeting. Individuals with disabilities may request auxiliary aids and services necessary for participation by contacting Beth Eckles at the Nebraska Department of Natural Resources, telephone 402-471-0661 or by email at beth.eckles@nebraska.gov, before 5 pm Central Time, Thursday, November 8, 2018.
#9263 November 8, 2018

AFFIDAVIT OF PRINTER

STATE OF NEBRASKA

}SS.

COUNTY OF KIMBALL

I, Nichole L OBrien, being duly sworn and under oath, say that I am an employee of Western Nebraska Observer, Company (a corporation), publishers of Western Nebraska Observer, an English Language weekly newspaper published in Kimball, Nebraska, with general circulation in both Kimball and Banner Counties, among others. I certify that said newspaper is a legal newspaper under the statutes of Nebraska, has a bona fide weekly circulation of at least 300, has been published at least 52 weeks prior to publication of this notice, that it holds a second class postage permit; and that to my personal knowledge, the attached clipping was printed in the regular and entire issue of the Western Nebraska Observer for one (1) week(s), beginning with the issue dated:

November 8, 2018
and ending with the issue dated:

_____, 20_____
Nichole L OBrien

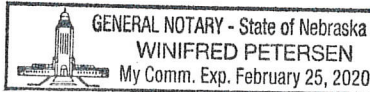
Printer's Fees:

\$ 14.08

Signed

Subscribed and sworn to before me this:

9th day of Nov., 2018



Winifred Petersen
Notary Public

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NOV 10 2018

SOUTH PLATTE NRD

Agenda

Project: 2nd Increment Stakeholder Process for South Platte NRD Integrated Management Plan (IMP)

Subject: Stakeholder Meeting #3

Date: Wednesday, November 14, 2018 from 1:00 p.m. – 4:00 p.m.

Location: Western Nebraska Community College

Topics:

1. Welcome
2. Administration
 - a. August meeting recap
3. Adjacent States Issue
4. Overview of Basin-Wide Plan
 - a. Total Depletions
5. 2nd Increment Discussion
 - a. Municipal and Industrial
 - b. Drought Mitigation Plan
6. Public Comment

Next Meeting: January 16, 2019



SPNRD IMP

Meeting 3

TODAY'S AGENDA

1. Welcome
2. Administration
 - a. August Meeting Recap
3. Adjacent States Issue
4. Overview of Basin-Wide Plan
 - a. Total Depletions
5. 2nd Increment Discussion
 - a. Municipal and Industrial Plan
 - b. Drought Mitigation Plan
6. Public Comment

WELCOME

- Open Meeting Notice
- Safety & Logistics



ADMINISTRATION

August Meeting Recap

AUGUST MEETING RECAP

- First Increment Regulatory Actions by SPNRD
 - Distinction for separate areas?
- Robust Review Results
 - Goals of the analysis
 - Maintain progress made
- Homework for the group
- Prioritized topics to discuss at next meeting



ADJACENT STATES ISSUE

A wooden windmill stands in a field of dry, yellowish grass. The windmill has a lattice-like wooden tower and a circular fan with many blades. One blade has a sign that says "MOTOR" and "CHICAGO". The background shows a clear blue sky with some light clouds and a distant, hilly landscape.

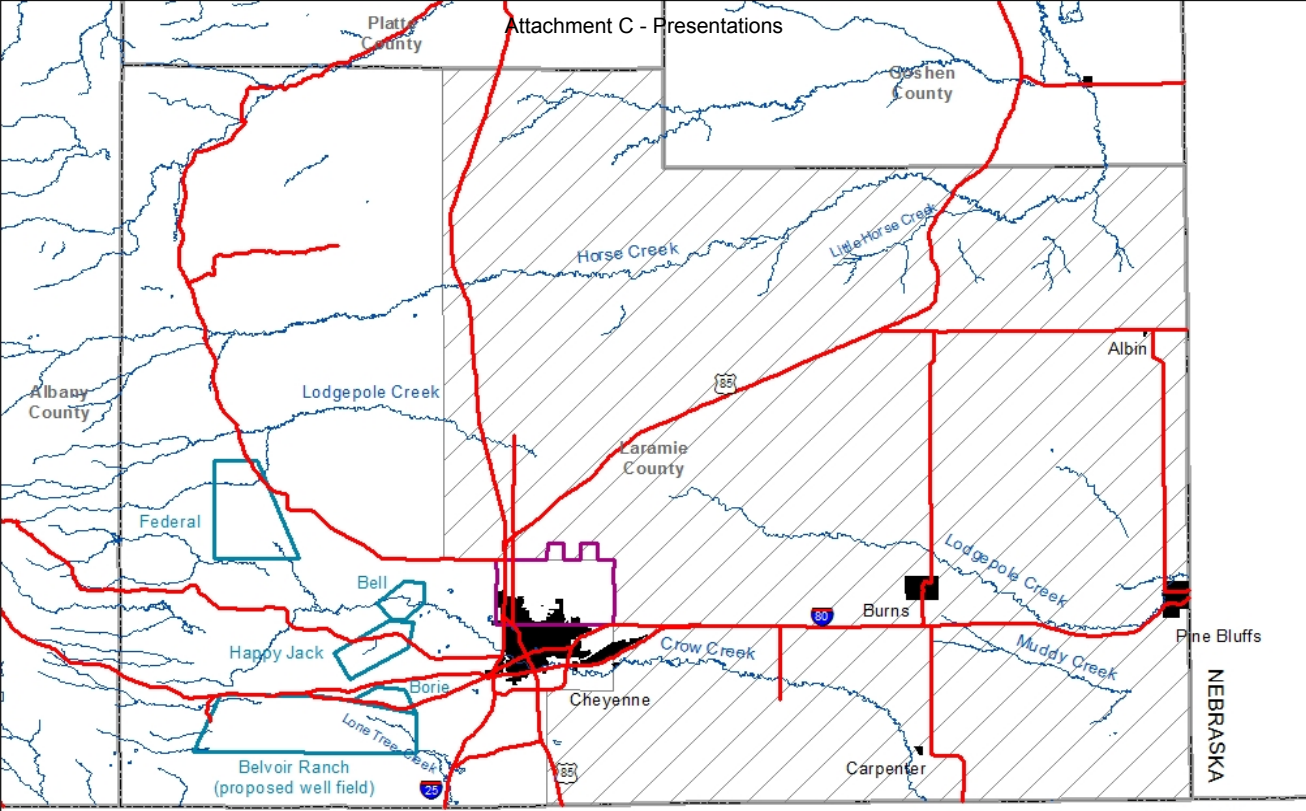
Update on the State Engineer's Order for Corrective Controls in the Laramie County Control Area issued April 1, 2015

Presented to
South Platte Natural Resource District
November 14, 2018

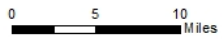
Background

1. In July, August and October 1976 the State Engineer received written requests from appropriators in various parts of Laramie County for creation of control areas.
2. The Creation of Control Area(s) was discussed at 13 separate meetings between February 1977 and September 1981.
3. Laramie County Control Area Created By Board of Control Order on September 2, 1981

Attachment C - Presentations



- Roads
- ▨ Laramie County Control Area
- ▭ Cheyenne Well Fields
- ▭ County
- ▭ North Cheyenne Study Area



COLORADO

NEBRASKA

Laramie County Location Map

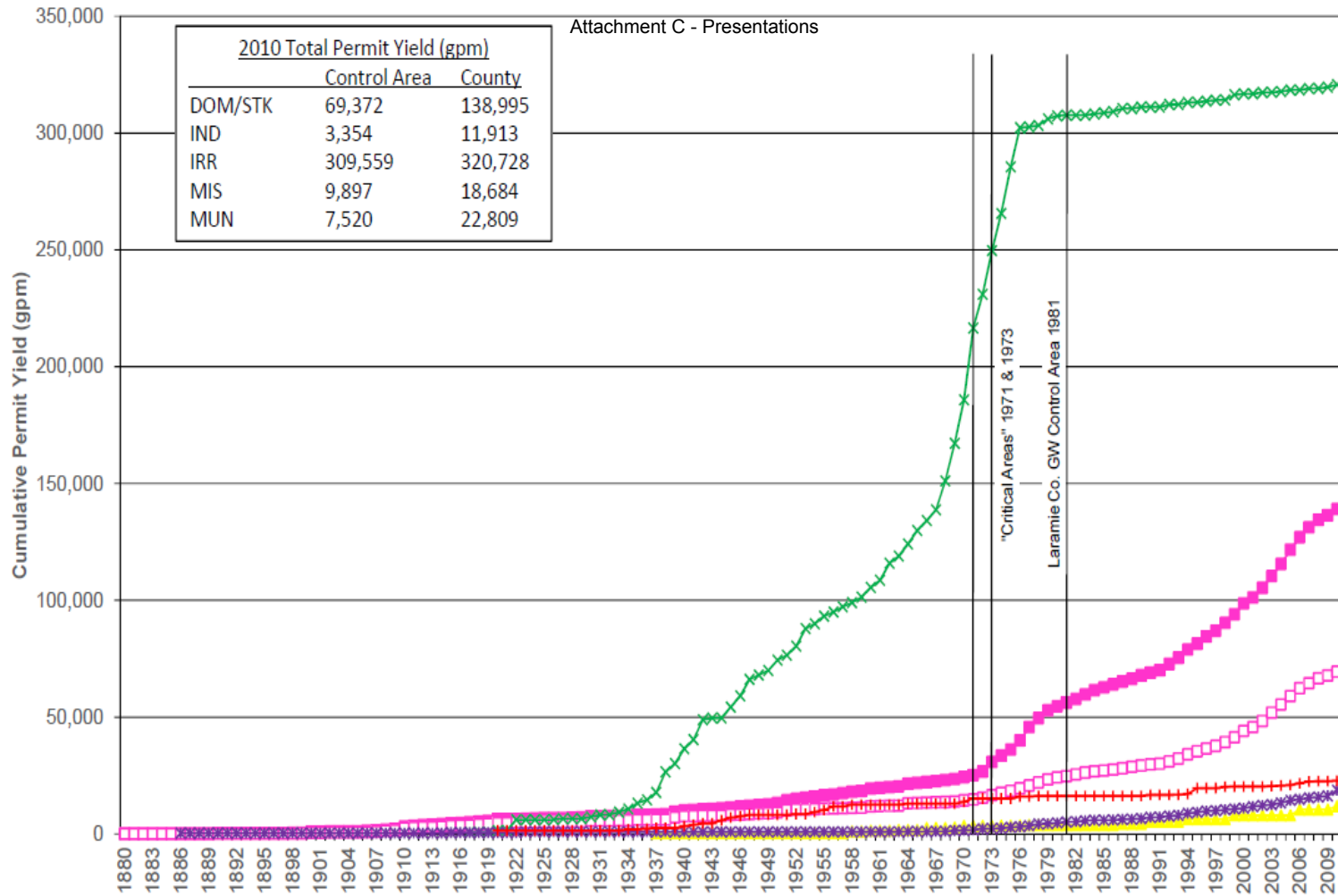
Additional Background

4. The Board of Control created the Laramie County Control Area as a result of:
 - a) Declining Water Levels
 - b) To mitigate the future potential for conflicts between groundwater users within the control area

■ DOM/STK
 □ DOM/STK Control Area
 ▲ IND
 ✕ IRR
 ✕ MIS
 + MUN

Attachment C - Presentations

| 2010 Total Permit Yield (gpm) | | |
|-------------------------------|--------------|---------|
| | Control Area | County |
| DOM/STK | 69,372 | 138,995 |
| IND | 3,354 | 11,913 |
| IRR | 309,559 | 320,728 |
| MIS | 9,897 | 18,684 |
| MUN | 7,520 | 22,809 |



Additional Background

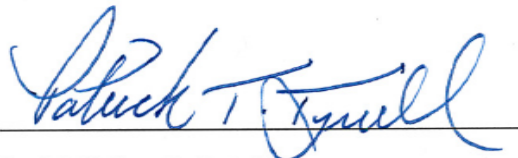
- Discussions began in early 2009 related to declining groundwater levels due to increased consumptive use in the Pine Bluffs area
- In April 2012 the State Engineer issued a Temporary Order aimed at mitigating further declines and to provide an opportunity to develop a methodology for future groundwater management.

Additional Background

- The State Engineer commissioned a Hydrogeologic study of the Laramie County Control Area.
- Temporary Order extended to March 31, 2014 to allow completion of Hydrogeologic Report.
- Order Issued by State Engineer for Corrective Controls within the Laramie County Control Area 1st Day of April 2015.

10. This Order shall remain effective until rescinded, superseded, or modified by another order of the State Engineer, or replaced by an appropriator agreement as envisioned in Wyoming Statute § 41-3-915 (c) and approved by the State Engineer. The State Engineer may, at any time, issue clarifying guidance or interpretations related to this Order.

Dated this 1st Day of April 2015.



Patrick T. Tyrrell, State Engineer

The order outlines stipulations for existing and new water rights within the Laramie County Control Area, I will give an update on a subset of the stipulations, namely

2. Adjudication of Existing underground water appropriations
3. Installation of flow meters and production reporting
8. Evaluation of the effects of the first three years of the Order

Order Stipulation 2.

2. Upon receiving concurrence of the BOC, I order adjudication of all unadjudicated, non time-limited, Irrigation, municipal, industrial, and miscellaneous use underground appropriations (including enlargements), developed in the High Plains Aquifer within the LCCA. All such unadjudicated appropriations must be adjudicated by November 30, 2017. Wells that are not adjudicated by this date will be Tagged, Locked, and foreclosed from use until adjudication is complete.

Status as of January 15, 2018 for underground water rights requiring adjudication

Total requiring adjudication - 180

- 89 have been adjudicated, canceled/abandoned, or use removed that required adjudication
- 45 are pending adjudication
- 37 have had no action
- 9 have issues in addition to stipulations of the Order that need addressed

Order Stipulation 3.



3. Prior to use in water year 2017, all irrigation, municipal, industrial, and miscellaneous use wells completed in the High Plains Aquifer shall be fitted with functional and accurate flow meters properly sized for the flow rate of the well pump and approved by the Water Division I Superintendent. All such meters must be kept in proper working order and maintained to the Superintendents satisfaction. Wells without an approved and properly functioning flow meter shall not be pumped after September 30, 2016. Upon receiving the advice and consent of the BOC, no later than November 15 of each year, appropriators must deliver monthly and annual reports on total groundwater production for the immediately prior water year, for each well so metered, to the SEO Ground Water Division on forms provided by the SEO. For example, Total monthly and annual well production for any such well during water year 2017 (October 1, 2016 through September 30, 2017) shall be delivered to the SEO Ground Water Division by November 15, 2017.

Status of Meter Installation as of November 14, 2018

- 642 active water rights affected by the Order
- 575 individual wells, 67 enlargements
- of the 575 required meters,
 - 484 inspections have been completed
 - 126 have been “regulated off”

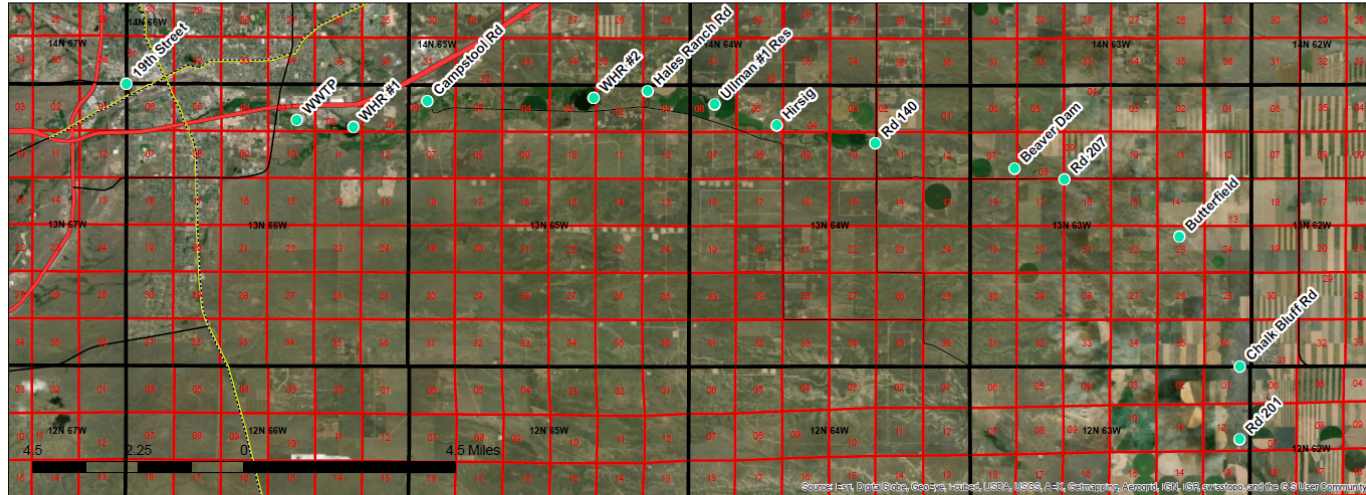
Monthly and Annual Reports Received as of November 14, 2018

- 642 active permits require monthly and annual production reports under the order
 - total Includes the 67 enlargement water rights
- Received production reports in part for 149 water rights
 - Some of the 149 may have included only monthly or annual total, not both
- Received complete reports for WY-2017 on 108 water rights

Order Stipulation 8.

8. Beginning November 16, 2019, the State Engineer will review the effects of the first three Years of Operation under this Order and determine, following a public hearing and comment period, whether or not the terms of this Order shall continue to apply or whether a new order should be issued.

Crow Creek Surface Water Monitoring Locations, June 2018



1. □ 19th Street – Bubbler. Measure Crow Creek incoming flows and maintain historic USGS gage location.
2. □ WWTP – Stage. Measure accretions from urban runoff.
3. □ WHR #1 Res. – Stage and Baro. Measure stage (and change thereof) from water deliveries.
4. □ Campstool Rd. – Stage. Measure inflow to WHR #2.
5. □ WHR #2 Res. – Stage and Baro. Assess change from water deliveries.
6. □ Hales Ranch Rd. – Stage. Measure inflow to Ullman #1.
7. □ Ullman #1 Res – Stage and Baro. Assess change from water deliveries.
8. □ Hirsig – Stage. Measure Creek and future inflows to Campstool Res.
9. □ Rd 140 – Stage and Baro. Measure natural flow and future deliveries from Campstool Res.
10. □ Beaver Dam – Two Stages. Measure natural flow and Diversion.
11. □ Rd 207 – Stage and Baro. Measure early return flow from Beaver Dam.
12. □ Butterfield – Stage. Stream losses and accretions from total Beaver Dam diversion.
13. □ Chalk Bluff Rd. – Stage and Baro. Measure losses in section to Carpenter.
14. □ Rd 201 – Stage. Measure losses in section below Carpenter. Location 1 mile from state line and upstream of historic Mackley Res.

DRAFT





Where do we go from here?

Questions?

Presented by:

Jeremy Manley
Ground Water Division
Wyoming State Engineer's Office

Adam Skadsen
Water Division I , District 1
Hydrographer /Commissioner
Wyoming State Engineer's Office





DRAFT BASIN-WIDE PLAN

Goals & Objectives

Total Depletions

Basin-wide Plan Goals and Objectives (Draft)

Goals

1. Incrementally achieve and sustain a fully appropriated condition, while maintaining economic viability, social and environment health, safety, and welfare of the basin
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
3. Partner with municipalities and industries to maximize conservation and water use efficiency
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
5. Keep the Upper Platte River Basin-Wide Plan current and keep stakeholders informed

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

1.1 Maintain previous increment mitigation progress

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**

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

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

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

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**

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

- 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

- 3.1 Continue to collect data on water use and existing conservation plans of municipalities and industries within the basin
- 3.2 Invite municipalities and industries to the **annual meetings**
- 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

- 4.1 **Identify disputes** between groundwater users and surface water appropriators
- 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

- 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
- 5.2 **Improve information sharing** with interested stakeholders
- 5.3 **Conduct planning for subsequent increments** of the plan, as necessary

DRAFT BASIN-WIDE PLAN TOTAL DEPLETIONS

Robust Review – Recap & Total Depletions

SPNRD Results

SPNRD IMP Stakeholder Meeting #3

November 14, 2018

Robust Review Goals

Robust Review Model Simulation Setup

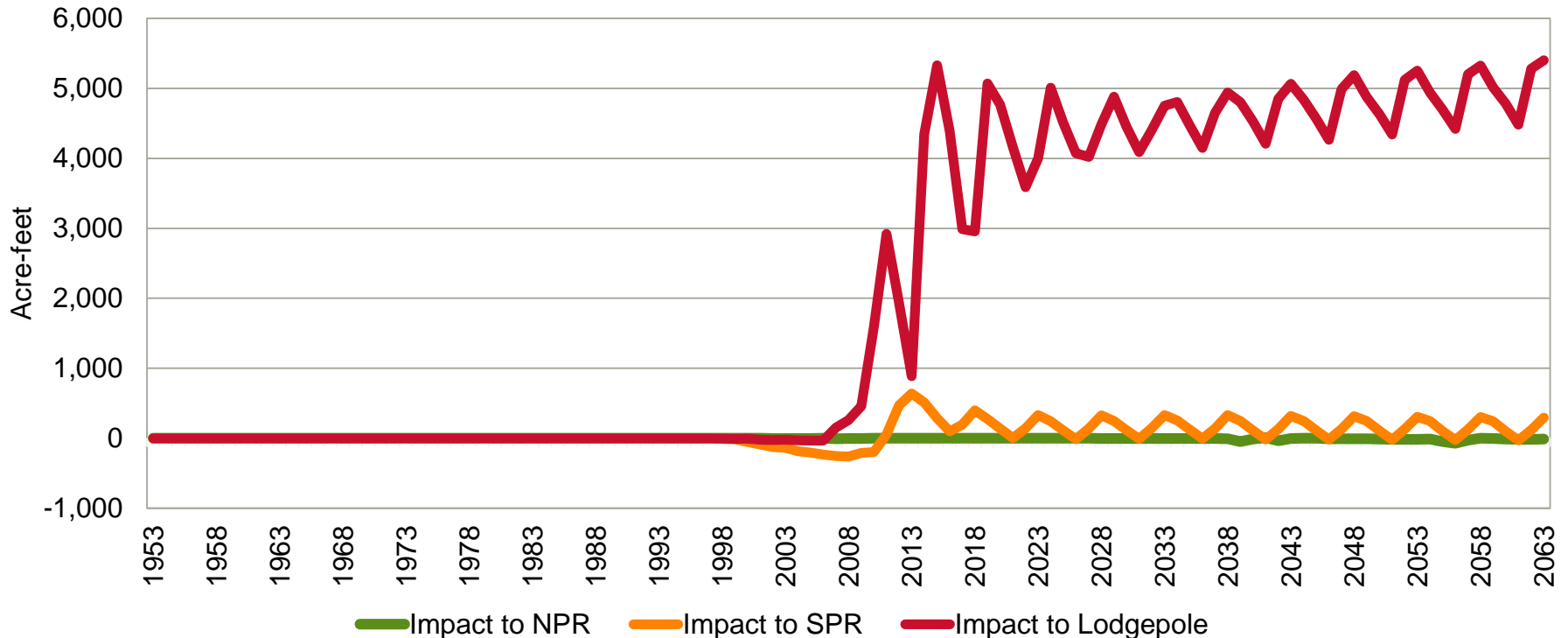
Post-1997 Summary

SPNRD Results

Attachment C - Presentations

- Positive values = increases to streamflow
- Negative values = decreases to streamflow

Impact to North Platte River, South Platte River, and Lodgepole Creek in SPNRD from Post-1997 Changes and Western Canal Recharge Events



SPNRD Results



Post-1997 estimates

| | Year | 2019 | 2029 | 50-year |
|--------------------|------------------|-------|-------|----------------|
| North Platte River | Current IMP | -13 | | -150 |
| | Updated Estimate | 0 | 0 | 0 to -20 |
| South Platte River | Current IMP | -149 | | -400 |
| | Updated Estimate | 280 | 250 | 0 to 300 |
| Lodgepole Creek | Current IMP | -63.9 | | -150 |
| | Updated Estimate | 5,070 | 4,880 | 4,500 to 5,400 |

- All values in acre-feet/year

- Positive values = increases to streamflow
- Negative values = decreases to streamflow

Total Depletions

Indicates what more may need to be done

SPNRD Inputs

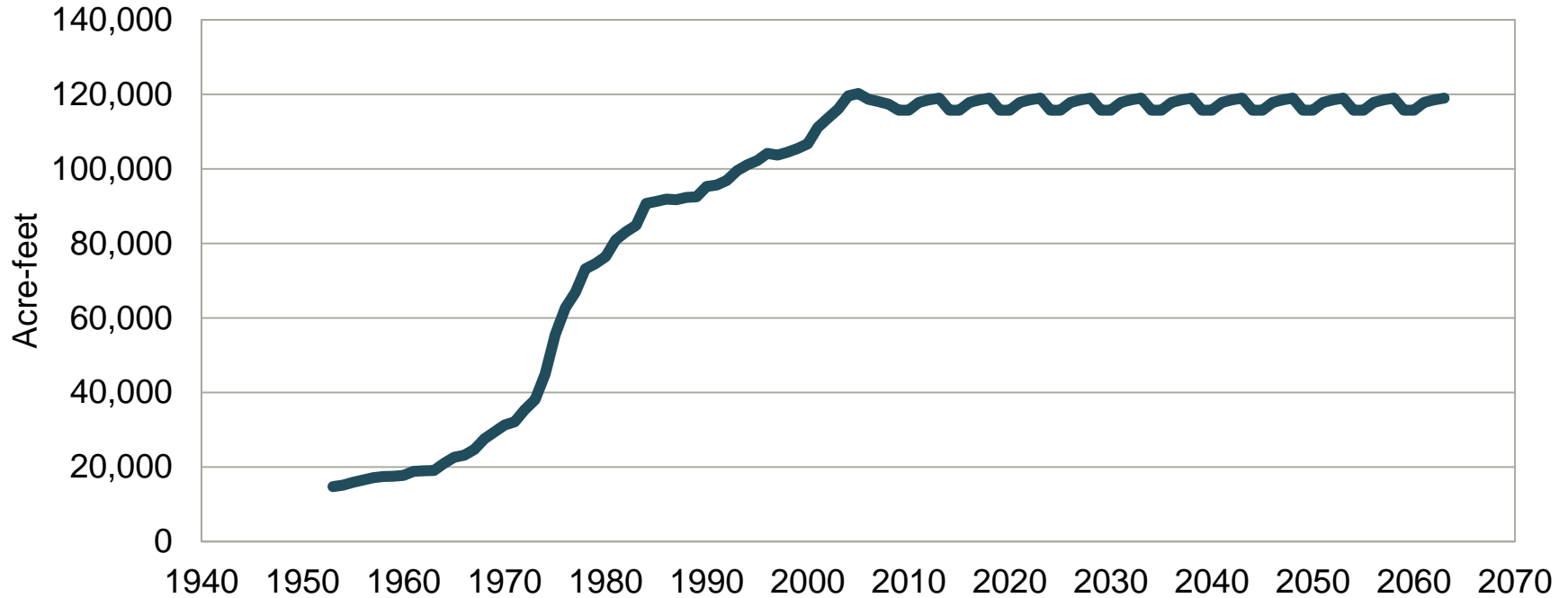
(Change in acres)

Change in groundwater-only irrigated acres 1953-2013

| SPNRD | Total change (1953 to 2013) |
|---------------|-----------------------------|
| District-Wide | 104,200 acres |

SPNRD Inputs

Groundwater-only irrigated acres from 1953, District-wide

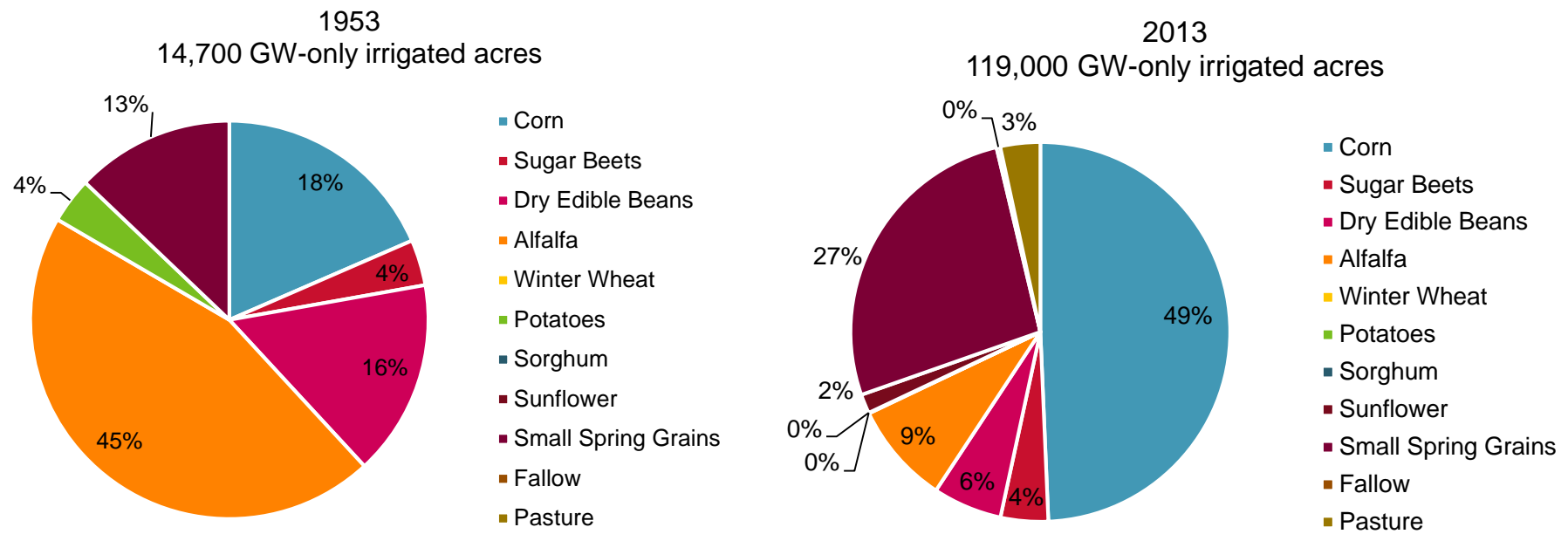


SPNRD Inputs

Attachment C - Presentations

(Changes in crop type, District-wide)

Change in groundwater-only irrigated acre crop types 1953-2013

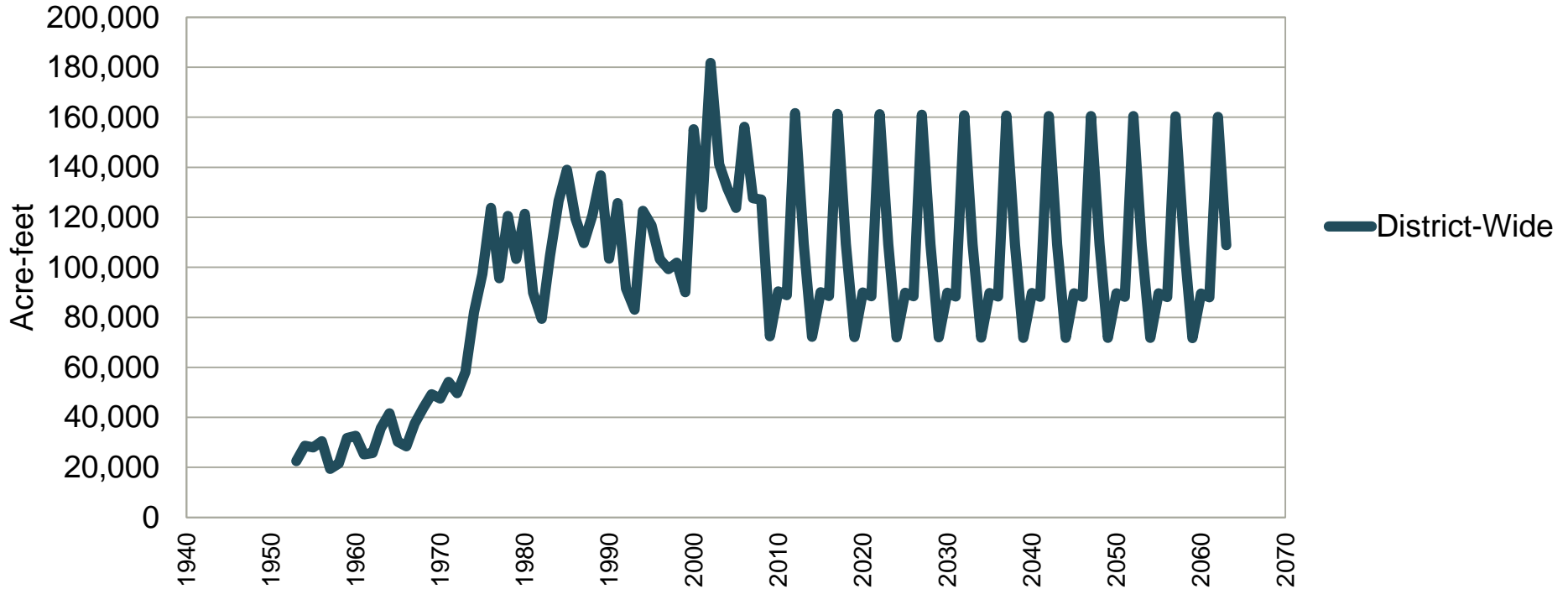


SPNRD Inputs

Attachment C - Presentations

Changes to Pumping, District-Wide

Groundwater-only irrigation pumping (104,200 acres) AND municipal/industrial pumping

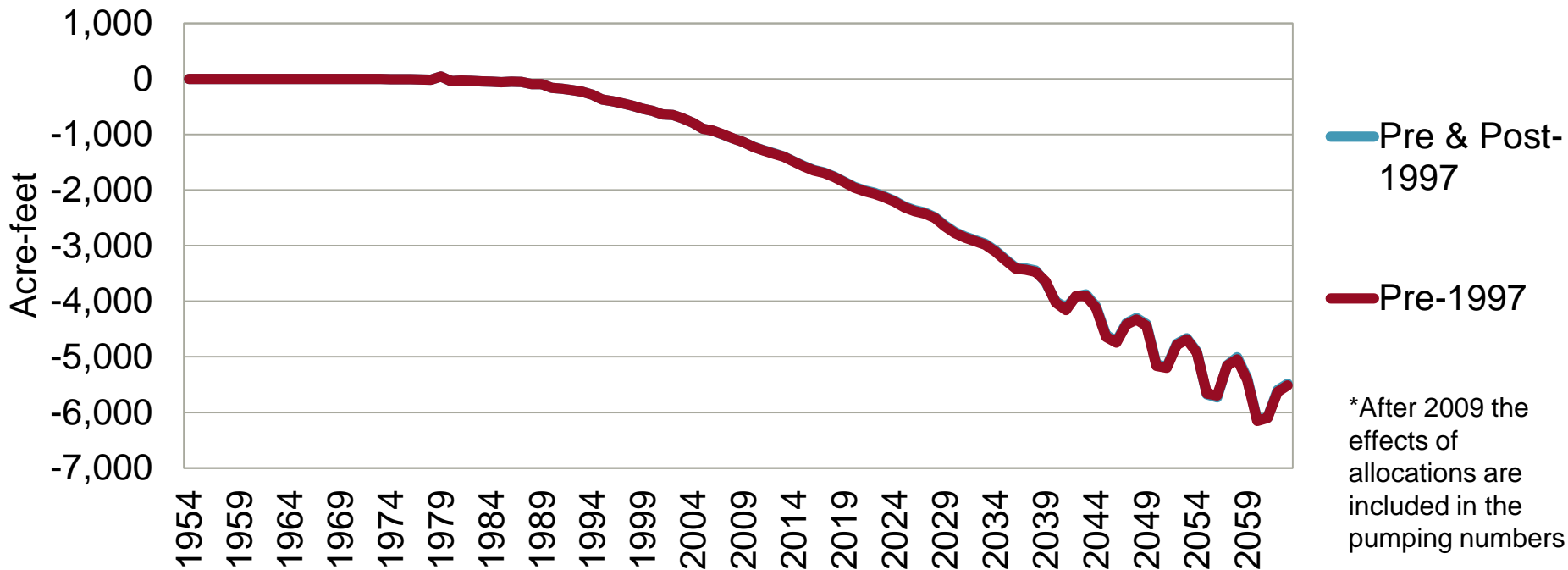


SPNRD – North Platte River

- Positive values = increases to streamflow
- Negative values = decreases to streamflow

Total impact to streamflow from pumping

Groundwater-only irrigated acres and municipal/industrial uses

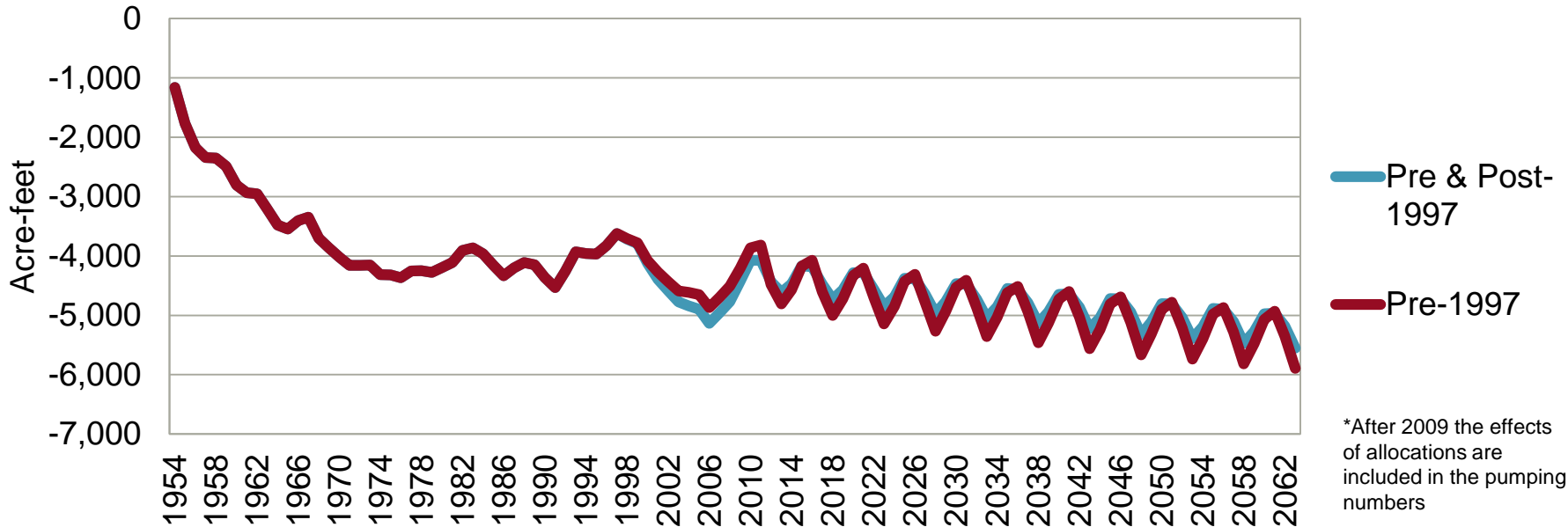


- Positive values = increases to streamflow
- Negative values = decreases to streamflow

SPNRD – South Platte River

Total impact to streamflow from pumping

Groundwater-only irrigated acres and municipal/industrial uses



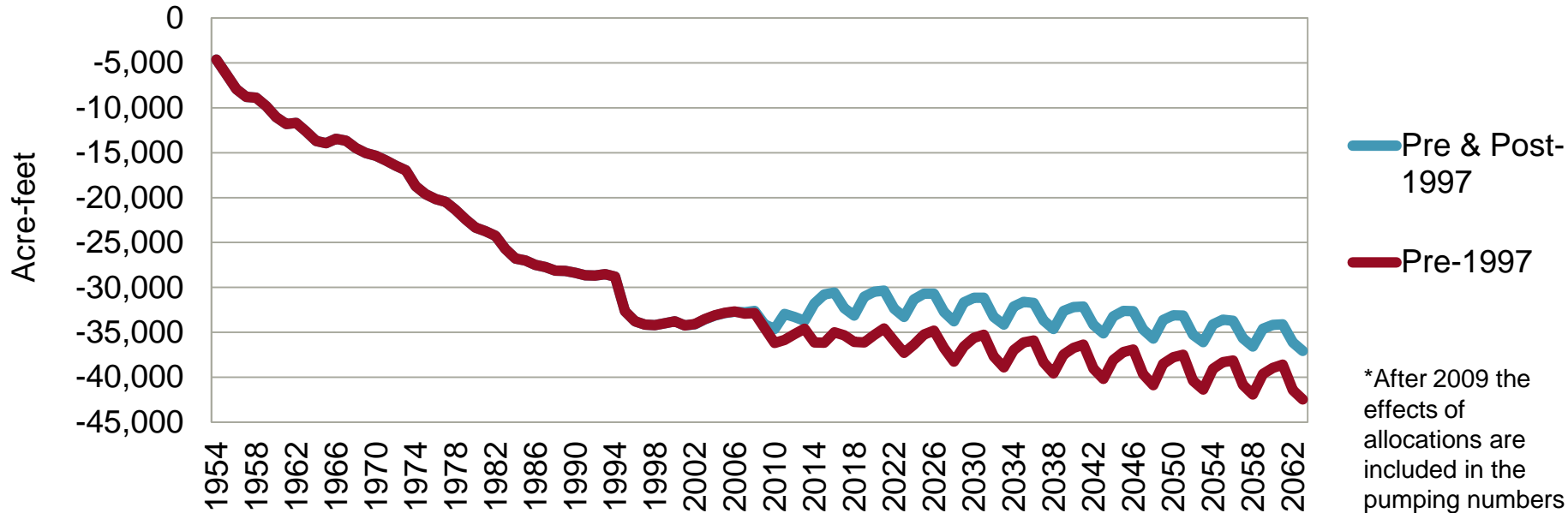
*After 2009 the effects of allocations are included in the pumping numbers

SPNRD – Lodgepole Creek

- Positive values = increases to streamflow
- Negative values = decreases to streamflow

Total impact to streamflow from pumping

Groundwater-only irrigated acres and municipal/industrial uses



*After 2009 the effects of allocations are included in the pumping numbers



Post-1997

Is the first step toward reaching a fully appropriated condition



2ND INCREMENT DISCUSSION

Proposed Municipal & Industrial Changes
Drought Mitigation Plan

2ND INCREMENT DISCUSSION

PROPOSED MUNICIPAL & INDUSTRIAL CHANGES

BWP Municipal & Industrial Goals

- **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 in 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**

PROPOSED MUNICIPAL / INDUSTRIAL CHANGES - FOR 2ND INCREMENT IMP

- 2 Parts to IMP Municipal and Industrial Changes
 - 1st part will cover 2019-2025
 - 2nd part will cover 2026 and after
- 2019-2025 IMP language will be revised to be similar to other Upper Platte Basin NRDs IMP language
 - The current language in the SPNRD IMP is very detailed and can be greatly simplified
 - Even though the language will be simplified, the reporting and tracking of municipal/industrial usage will not change. The only exception is that reporting and tracking can be done on the calendar year instead of the August 1st through July 31st timeframe.
 - The simplified language could provide more flexible opportunities for offsetting water consumed over the municipal or industrial baseline

PROPOSED MUNICIPAL/INDUSTRIAL CHANGES FOR 2ND INCREMENT IMP

➤ Summary of current statute language

- Neb. Stat. § 46-740 states that an IMP, rule, or order cannot limit the use of groundwater by a municipality or non-municipal commercial/industrial use within a designated fully or over appropriated area until January 1, 2026.
- Neb. Stat. § 46-740 also states that on and after January 1, 2026, the base amount for an annual allocation to a municipality shall be determined as the greater of either (a) the amount of water authorized by a permit issued pursuant to the Municipal and Rural Domestic Ground Water Transfers Permit Act or (b) the greatest annual use prior to January 1, 2026.

CHANGE #1

- Accounting Year
 - Currently: August 1st to July 31st
 - 2026 (or before): January 1st to December 31st

- Accounting Period
 - Currently: 1 year period within the 28%/40 year line (South Platte Valley) and 5 year period everywhere else
 - 2026: 5 year period Districtwide

- Reasons:
 - Easier time frame to track
 - Matches irrigation season
 - Making transfers and offsets easier

CHANGE #2

➤ Municipal Baselines Updated

- Currently: Greatest annual use for governmental, commercial, and industrial use plus a per capita allowance based on a August 1, 2001 through July 31, 2006 timeframe
- 2026: Greatest annual use for governmental, commercial, and industrial use prior to January 1, 2026 plus a per capita allowance based on calendar year timeframe

➤ Reasons:

- Required by statute

CHANGE #3

- Any new Industry that does not have an established baseline as of 2026 will be responsible for offsetting all new water use.
 - Currently: NRD is responsible for providing up to 25 million gallons offset for offsetting new consumptive uses
 - 2026: Industrial user will be responsible for offsetting all new consumptive uses

- Reasons:
 - Several existing industrial wells do not have a baseline established currently, if those wells become active in the future they will need to obtain their own offsets

CHANGE #4

- Offsets for expanded Industrial growth with an existing baseline
 - Currently: NRD is responsible for offsetting new or expanded consumptive water use if the baseline is exceeded up to 25 million gallons per year. Industrial user is responsible for offsetting new or expanded consumptive water use if the baseline is exceeded by more than 25 million gallons per year
 - Example: Baseline is 10 million gallons; user pumps between 10 million and 35 million gallons the NRD has to offset; user pumps greater than 35 million gallons they have to offset
 - 2026: Industrial user is responsible for offsetting any new or expanded water use over the baseline. Will have to have an approved NRD offset in place within one year of the end of an accounting period overage
 - Example: Baseline is 10 million gallons; user pumps any amount over 10 million gallons they have to offset

- Reasons:
 - Fairness between users. Irrigators are responsible for all offsets if their allocation is exceeded, now it will be the same for industries

SUMMARY OF MAJOR CHANGES

- Accounting time frame changes to calendar year
- Municipal baselines could change in 2026
- All Municipalities and Industries will have a 5 year accounting period handled the same without regard to the NNDP 28%/40-year area and will have a five-year accounting period
- SPNRD will not be responsible for offsetting uses over the industrial baseline amount in 2026
- Remove the requirement for municipal water conservation plans after 2026.

2ND INCREMENT DISCUSSION DROUGHT MITIGATION PLAN

BWP Drought Planning Goals

- **Action Item 1.3.4:** Develop a basin drought contingency plan for management of supplies during times of shortage
 - **Action Item 1.3.4.1:** Develop a basin drought monitoring protocol for defining and determining drought conditions
 - **Action Item 1.3.4.2:** Identify potential basin-wide mitigation and response actions to drought conditions and opportunities for cooperation across the basin (that is, management of storage water)
 - **Action Item 1.3.4.3:** Conduct a drought simulation workshop with NeDNR, NRDs, and water users to assist in developing and testing of protocols during a drought
 - **Action Item 1.3.4.4:** Identify roles for administering and implementing basin drought contingency plan

Stakeholder Feedback

- What problems do you face in drought?
- What is a drought plan to you?
- Would you be interested in participating in a drought workshop?

South Platte NRD Drought Management Plan

- What Will The Plan Accomplish?
 - Identify district vulnerabilities
 - Create method of monitoring drought conditions
 - Identify and prioritize mitigation and response actions to reduce future drought impacts
 - Become a tool to assist the NRD in water resources management
 - Lead to a more sustainable and stable water supply for all users across the district

South Platte NRD Drought Management Plan

- How Will This Be Accomplished?
 - Data collection/analysis of historic records
 - Drought Tournament with stakeholders
 - Development of a Drought Management Plan
 - Develop “Local” drought thresholds
 - Identify Mitigation Alternatives
 - Develop protocol for monitoring and forecasting



NEXT STEPS

ANYTHING ADDITIONAL?

- Is there anything else you believe should be considered for incorporation into the IMP?

MEETING DATES

- January 16, 2019



PUBLIC COMMENT

Thank you

IMP Stakeholder Meeting June 20, 2018

| Present | Name | Email | Best Contact Phone Number | Corrections |
|---------|------------------|--|---------------------------|-------------|
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| | Mike Behrends | behrends30@hotmail.com | 308-874-4300 | |
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| X | Dave Weiderspon | wvet@yahoo.com | 308-254-2704 | |
| | Kevin Derry | derrykb@embarqmail.com | 308-874-4240 | |

Attachment D - Attendance Sheet

| | | | | |
|---|----------------------|--|--------------|--|
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| | Don Kraus | dkraus@cnppid.com | 308-995-8601 | |
| X | Jeff Shafer | jtshafe@nppd.com | 402-362-7360 | |
| | Tim McCoy | tim.mccoy@nebraska.gov | 402-471-5539 | |
| | Al Hanson | al.hanson@nebraska.gov | 308-763-2940 | |
| | John Flint | john.flint@nebraska.gov | 308-641-7273 | |
| | Kaitlyn Steinwart | kaitlyn.steinwart@nebraska.gov | 308-765-9293 | |
| | Kristin Dickinson | kristin.dickinson@ne.usda.gov | 308-249-2766 | |
| X | Steve Sibray | ssibray@unlnotes.unl.edu | 308-632-1382 | |
| X | Thad Kuntz | thad@adaptiveresourcesinc.com | 308-633-2890 | |
| X | Rod Horn | rlhorn@spnrd.org | 308-254-2377 | |
| X | Ryan Reisdorff | rreisdorff@spnrd.org | 308-254-2377 | |
| | Travis Glanz | tglanz@spnrd.org | 308-254-2377 | |
| X | Melissa Mosier | melissa.mosier@nebraska.gov | 402-471-3948 | |
| X | Beth Eckles | beth.eckles@nebraska.gov | 402-471-0661 | |
| X | Jennifer Schellpeper | jennifer.schellpeper@nebraska.gov | 402-471-2899 | |
| X | Mike Drain | mdrain@cnppid.com | 308-995-8601 | |
| | Randy Zach | rrzach@nppd.com | | |
| | Devin Brundage | dbrundage@cnppid.com | 308-529-1621 | |
| | Jeff Buettner | jbuettner@cnppid.com | 308-995-3559 | |
| X | Shea Winker | DNR | | |
| X | Adam Skadsen | WY-SEO | | |

Proposed Municipal/Industrial 2026 change

Beginning January 1, 2026, municipal and industrial baselines and accounting will change in the SPNRD. Nebraska Revised Statute §46-740 allows changes to begin on January 1, 2026. The proposed changes for discussion purposes will be as follows:

- 1) The municipal and industrial year will now follow the calendar year – January 1st through December 31st (currently August 1st through July 31st). An accounting period will be five years for all municipalities and industries.
- 2) Updated municipal baselines (allocations) will be calculated as follows:
In accordance with statute, the base amount of the allocation for a municipality shall be determined as the greater of either a) the amount of water authorized by a DNR transfer permit, or b) the greatest annual use for governmental, commercial, and industrial use prior to January 1, 2026, plus a per capita allowance. Currently the SPNRD tracks municipal use based off pumping volumes and subtracts waste water discharge volumes when appropriate and intends to continue following this method after January 1, 2026.
- 3) Updated industrial baselines (allocations) for existing industries will be calculated as follows:
The highest one-year total usage (calendar year) over a twenty-four-year period from 2002 through 2025 and a long-term average annual use will be calculated to determine the new baseline. One caveat will be any industry that received an industrial baseline through a transfer and/or variance will still have the baseline that was approved during the transfer/variance process and will not be adjusted.
- 4) Any new municipality or new industry that does not have an established baseline before 2026 will be responsible for offsetting all new water use.
- 5) Beginning in 2026, all municipalities and industries will have a five-year accounting period regardless of location. If at the end of a five-year accounting period the baseline has been exceeded, that municipal or industrial user is responsible for offsetting any water pumped over the baseline. Offsets will need to be in place by the end of the calendar year following the accounting period with the overage. Any offsets will need to be approved by the SPNRD. The only exception will be a municipality that has an approved and current NeDNR Municipal Transfer Permit; which will allow that municipality to pump up to the volume specified in the permit without an offset being required. If the volume in the Municipal Transfer Permit is exceeded, then offsets will be required.
 - a. Industrial/commercial users served by a municipality are required to make an application for and be granted a large user permit prior to beginning a new or expanded consumptive use of water in annual amounts greater than twenty-five (25) million gallons.
- 6) If, due to growth of the municipality, the consumptive use of water is permanently reduced (e.g. by taking irrigated acres out of production) then that reduced amount of consumptive use will accrue to the District's water bank to be used in whole or in part to offset any future increased consumptive use of the municipality, or be used by the District to reach a fully appropriated status.
- 7) Each year the municipality shall be responsible for reporting to and working with the District to document all water pumped from each well controlled by the municipality that exceeds 50 gallons per

minute (or comingled wells pumping a combined total of greater than 50 gallons per minute), and all wastewater discharged by the municipalities. Volumes of water pumped and discharged will be reported in gallons each month.

Major changes:

- 1) Time frame changes to calendar year
- 2) Most baselines will be changing
- 3) All municipalities and industries will be handled the same without regard to the NNDP 28%/40-year area.
- 4) SPNRD will not be responsible for offsetting uses over the updated baseline amount, and all offsets will need to be in place within one year after an accounting period overage. However, the SPNRD may be willing to work with the municipal or industrial user depending on the circumstances at that time.
- 5) Remove the requirement for municipal water conservation plans after 2026.