

LBNRD Voluntary Integrated Management Plan
**2020 Nebraska Department of Natural Resources
Annual Report Review**

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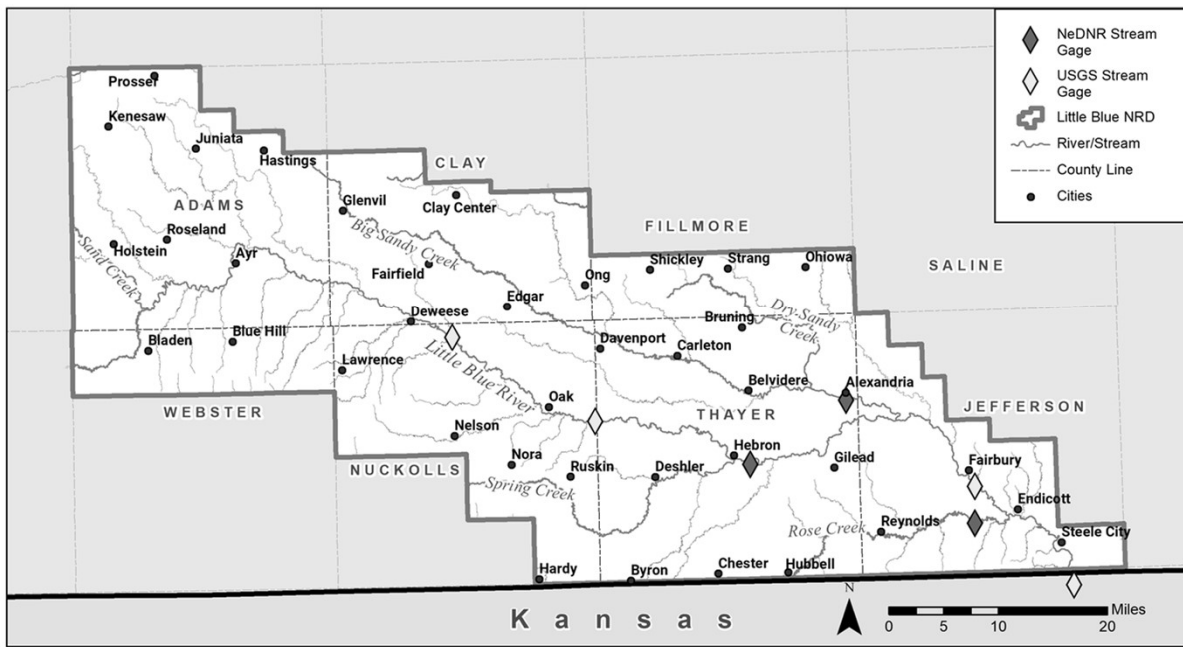
Summary

The Nebraska Department of Natural Resources IMP Annual Report for the Little Blue NRD summarizes the following information for 2020.

- Progress Toward Goals and Objectives
- Streamgaging
- Surface Water Permitting
 - Administration
 - New/Cancelled/Transferred Appropriations
 - Monitoring (Pumpsite Inspections)
 - Voluntary Water Right Use Reporting
 - Variances for Areas Under Moratorium
- Modeling Tools and Data Analysis
- Education and Outreach

Streamgaging

Little Blue NRD Streamgages



Updated on 05/18/2021 by AJP. NeDNR. Data source NeDNR, NHD

Streamgages in the Little Blue NRD

Name of Gage	Funding Source(s)	Gage ID	Years Active	Operator
Little Blue River near Deweese	USGS	6883000	1990 to present	USGS
Little Blue River at County Line at Deshler	LBNRD, Thayer and Jefferson Counties, City of Hebron, USGS	6883530	2017 to present	USGS
Little Blue River at Hebron,	LBNRD, NeDNR	6883555	2017 to present	NeDNR
Big Sandy Creek at Alexandria	NeDNR	6883940	1979 to present	NeDNR
Little Blue River near Fairbury	USACE, USGS	6884000	1991 to present	USGS
Rose Creek at HWY 15 near Fairbury	LBNRD, NeDNR	6884005	2017 to present	NeDNR
Little Blue River at Hollenburg, Kansas	BBRCA, USGS	6884025	1974 to present	USGS

Surface Water Permitting

- There are 247 irrigation permits from a naturally flowing source within the LBNRD that are not exempt*, allowing for a total maximum of 14,455.19 irrigated acres.
- Storage and supplemental storage permits are allowed to store a total of 13,470.93 acre-feet
- Storage-use for irrigation is allowed on a maximum of 7,140.3 permitted acres not covered by an irrigation-from-natural-flow permit.

*Nearly half of all surface water permits in the District are “exempt” from surface water administration. These permits are for re-use pits that collect runoff from groundwater irrigation and for diversions from ephemeral streams.

New/Cancelled/Transferred Appropriations

Applications Approved in 2020 in the Little Blue NRD

Appropriation Number	Approval Date	Use	Source	Acres	Grant	River Basin
A-19688	4/10/2020	Storage	Tributary to Dry Creek	N/A	20.9 af	Little Blue
A-19700	6/17/2020	Storage	Tributary to Brawner Creek	N/A	63.2 af	Little Blue

Surface Water Appropriations Canceled in Full in the Little Blue NRD January 1, 2020 to December 31, 2020

Appropriation Number	Cancelled Date	Use	Location	Begin Acres	Cancelled Acres	Cancelled Grant (cfs)	Canceled Grant (af)	Basis for NeDNR Action	River Basin
A-2277	9/3/2020	Irrigation from a naturally flowing source	S9-T2N-R2E	17	17	0.25	N/A	PDNU-9008	Little Blue
A-16046	1/14/2020	Irrigation from storage only	S3-T1N-R3W	92	92	N/A	35	REL-7777	Little Blue
A-17123	4/29/2020	Irrigation from a naturally flowing source	S10-T3N-R4W	35	35	0.50	N/A	REL-8940	Little Blue
A-11953	8/17/2020	Irrigation from storage (supplementing irrigation from a naturally flowing source)	S33-T1-R5W	N/A	N/A	N/A	28.7	REL-9013	Republican

Transfer Applications Approved in 2020 in the Little Blue NRD

Appropriation Number	Approval Date	Use	Source	Acres Transferred	Grant Transferred	Increase in Acres?
A-8131	8/4/2020	Irrigation from a naturally flowing source	Tributary to Dry Creek	24	0.17 cfs	No

Monitoring Use of Surface Water

- As time and conditions allow, the NeDNR field office staff visit pumpsites (as mapped) for each appropriation to check for compliance and collect various data.

NeDNR Pumpsite Visits (July and August 2020)			
	Running	Not running	Total
Pumpsite set up	2	26*	28
Pumpsite not set up	N/A	N/A	97
Total Number of Pumpsite Visits			125

*Of the 26 pumpsites that were set up but not running, 6 showed signs that the pump had been pulled due to localized flooding.

Flow Meters

- The Department will continue to evaluate the need for flow meters on surface water diversions

Voluntary Water Right Use Reporting

Voluntary Water Use Reporting (79 Total Responses)				
Purpose	Used Surface Water Only (acres)	Used Groundwater Only (acres)	Used Surface Water and Groundwater (acres)	Did Not Irrigate (acres)
Irrigation from a naturally flowing source	27 (1,806.3 acres)	7 (245.5 acres)	N/A	19 (1,009.5 acres)
Irrigation from storage only	9 (1,076.6 acres)	1 (42 acres)	4 (643.6 acres)	8 (506.2 acres)
Irrigation from storage (supplementing irrigation from a naturally flowing source)	2 (187 acres)	N/A	N/A	2 (176 acres)

- There were 24 respondents who reported the amount of water applied in 2020
 - 16 Irrigation from a naturally flowing source
 - 7 Irrigation from storage only
 - 1 Irrigation from storage (supplementing irrigation from a naturally flowing source)

- Those respondents reported an average of 5.5” applied over 1,979.4 acres for a total of 900.4 acre-ft

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Variances Filed in Areas Under Moratorium

- Since 2004, the Department has had a moratorium on new surface water applications in both the Republican River Basin and Upper Platte River Basin.
- No variances have been filed in 2020 within the LBNRD within the Republican River Basin or the Upper Platte River Basin.
- No moratoriums exist in either the Big Blue River Basin or the Little Blue River Basin; therefore, no variances were sought in 2020.

Tracking Depletions

- The Department will institute mandatory reporting for all high-capacity (greater than 50 gallons per minute) surface water irrigation uses when a water availability trigger is met
- The trigger is 24 average days of closure for surface water administration, between the period of July 1 and August 31
- In 2020, the trigger was not met as surface water administration was not necessary.

Modeling Tools, and Data Analysis

- In 2020, model development proceeded to the calibration phase. A fully calibrated model is expected to be completed in summer 2021.

THANK YOU

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