

# Nebraska Department of Natural Resources Preliminary Republican River Basin Forecast (2016)

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**Presented at the Tri-Basin Natural Resources  
District Offices  
Holdrege, NE**



Department of Natural Resources

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# Outline

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- ❑ 2015 Early Projection with Management Actions
- ❑ Preliminary 2015 Accounting Results
- ❑ Dry-year Forecast (2016)
- ❑ Compact Call Year Evaluation Flow Chart
- ❑ Forecasted NRD Projections

# Preliminary Accounting Results (2014-2015)

# Early-Year 2014-2015 Projection with Management Actions

Year	Annual Balance		
	LRNRD	MRNRD	URNRD
2014 (Provisional)	14,000	5,100	1,300
2015 (Forecast)	-12,800	-9,300	-15,900
2-Year Balance (from the forecast)	1,200	-4,200	-14,600
Management Actions	-1,200	4,200	14,600
2015 Balance with NRD management actions	-14,000	-5,100	-1,300
2-Year Balance (with management actions)	0	0	0

# Preliminary 2015 Accounting

Year	Item	Information Source
Provisional Data for T = 0 (Current Year or Immediate Past Irrigation Season)	Pumping	2014 Pumping
	Surface Water Use	Estimated from preliminary data and previous years values
	Stream flow	Available provisional records end of year estimated
	Evaporation	T – 1 records and provisional data

Estimated 2015 Basin-Wide Balance of approximately -14,200 ac-ft

Includes crediting pursuant to RRCA resolution

# Current 2014-2015 Projection with Management Actions

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	Annual Balance		
Year	LRNRD	MRNRD	URNRD
2014	20,700	6,700	4,600
2015 (Projected)	-8,100	-6,100	0
2-Year Balance	12,600	6,00	4,600

Compliance for 2014-2015 accounting period

\*2014 and 2015 includes crediting for management actions based on RRCA resolution

# Preliminary Dry-Year Forecast (2016)

# Dry-Year Forecast

Year	Item	Information Source
Forecast Year T + 1 (Coming Irrigation Season)	Groundwater Consumptive Use and Imported Water Supply Credit	Average values for T = 0 and T - 1
	Surface Water Consumptive Use	Colorado: Average of T - 1 and T - 2 use Kansas: + (.1858 x HCL content) + 9,575 Nebraska: - (4x10 <sup>-7</sup> ) x (NE lake volume) <sup>2</sup> + (0.52) x (NE lake volume) - 42,000
	Streamflow	(5-year average of state line flows) x 0.41 + 0.23 x HCL content - 27,450

Estimated 2016 Basin-Wide Balance of approximately -38,800AF

# Guide Rock Annual Balances

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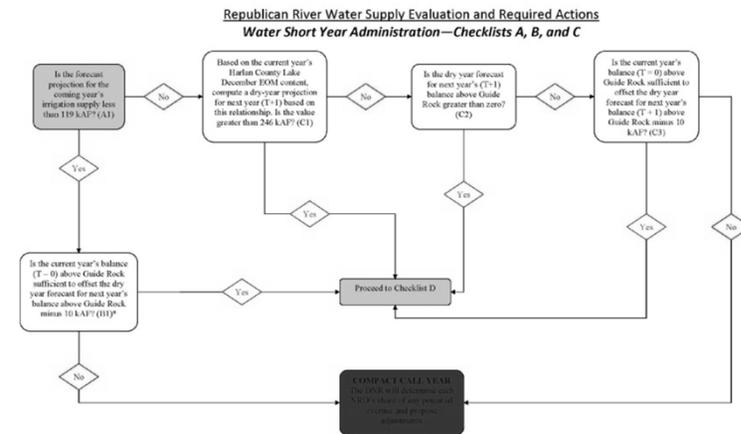
<b>Year</b>	<b>Guide Rock</b>
<b>T = 0 (2015)</b>	<b>-14,200 (preliminary)</b>
<b>T = + 1 (2016)</b>	<b>-38,800 (preliminary forecast)</b>
<b>Forecast Balance</b>	<b>-53,000</b>

# Compact Call Year Evaluation (Checklist A.)

Is the forecast projection for the coming year's irrigation supply less than 119 kAF?

**YES**

**Proceed to Checklist B.**



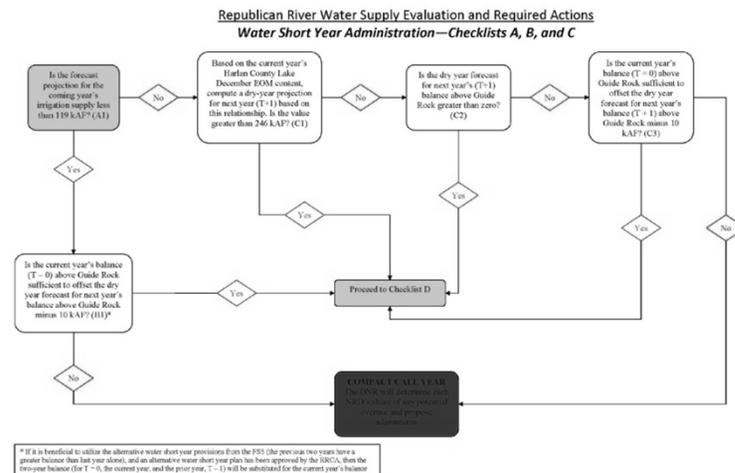
\* If it is beneficial to utilize the alternative water short year provisions from the PFS (the previous two years have a greater balance than last year above), and an alternative water short year plan has been approved by the SRCA, then the previous balance (for T-0, the current year, and the prior year, T-1) will be substituted for the current year's balance.

# Compact Call Year Evaluation (Checklist B.)

- Is the current year's balance ( $T = 0$ ) above Guide Rock sufficient to offset the dry year forecast for next year's balance above Guide Rock?

**NO**

**Compact Call Year is Forecasted.**



# Forecast NRD Specific Balances

# NRD Annual Balances

## (2015-2016)

	Annual Balance		
Year	LRNRD	MRNRD	URNRD
2015 (Preliminary)	-8,100	-6,100	0
2016 (Forecast)	-10,400	-10,300	-18,100
2-Year Balance	-18,500	-16,400	-18,100
Management Actions Prior to June 1st	-11,500	-10,200	-11,300

# Summary

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- ❑ Based on the preliminary forecast, the IMP checklist indicates that a Compact Call Year will be in place in 2016
- ❑ Preliminary 2015 accounting balance, approximately -14,200 ac-ft
- ❑ Preliminary Dry-year forecast balance currently forecasted at approximately -38,800 ac-ft
- ❑ Total Projected shortfall for 2015-2016 of -53,000 ac-ft

# Next Steps

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- ❑ Each NRD will take proportionate management actions to meet the terms of the RRCA resolution and integrated management plan or in the alternative wells located in the 10/5 area will be curtailed
- ❑ The Department will issue necessary orders and closing notices to implement the RRCA resolution and IMPs
- ❑ The Department will complete its final forecast prior to January 1, 2015

# Thank you

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# Questions?



Department of Natural Resources