

Nebraska Department of Natural Resources Preliminary Republican River Basin Forecast (2013)

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Presented to the
**Nebraska Republican River
Management Districts Association
(NRRMDA)**

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Outline

- ❑ Preliminary 2012 Accounting Results
- ❑ Dry-year Forecast (2013)
- ❑ Compact Call Year Evaluation Flow Chart
- ❑ Forecast NRD Balances

Preliminary Accounting Results

(2012)

Preliminary 2012 Accounting

Year	Item	Information Source
Provisional Data for T = 0 (Current Year or Immediate Past Irrigation Season)	Pumping	Power records estimate
	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 2012 Basin-Wide Balance of approximately 10,500 AF

Preliminary Dry-Year Forecast (2013)

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 ⁻⁷) x (NE lake volume) ² + (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 2013 Basin-Wide Balance of approximately -29,500 AF

Guide Rock Annual Balances

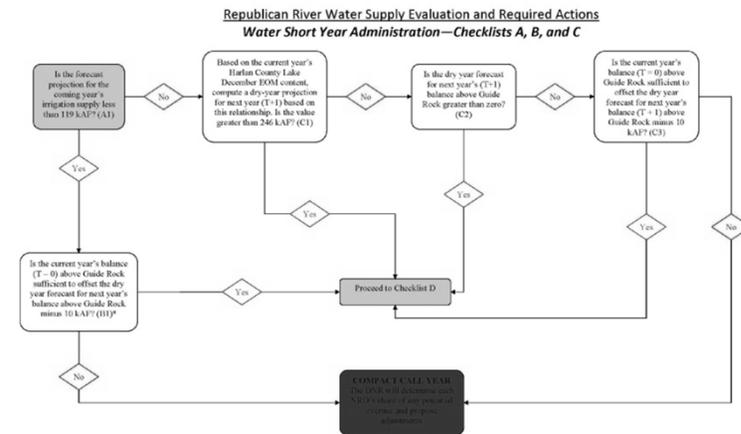
Year	Guide Rock
T = 0 (2012)	10,564 (preliminary)
T = + 1 (2013)	-29,784 (forecast)
Forecast Balance	-19,220

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.



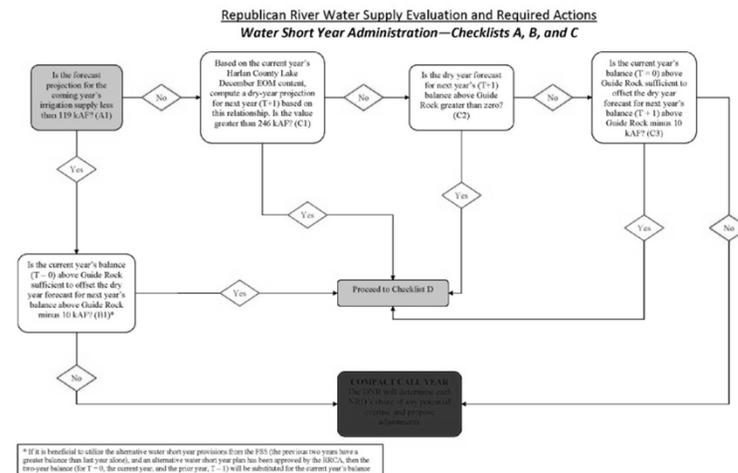
* If it is beneficial to utilize the alternative water short year provisions from the PFS (the previous two years have a greater balance than last year above), and an alternative water short year plan has been approved by the SRCA, then the previous balance (for T-0, the current year, and the prior year, 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 minus 10 kAF?

NO

Compact Call Year is Forecast.



Forecast NRD Specific Balances

NRD Annual Balances

(2012-2013)

Year	Allowable Groundwater Depletion			Groundwater CBCU			Annual Balance		
	LRNRD	MRNRD	URNRD	LRNRD	MRNRD	URNRD	LRNRD	MRNRD	URNRD
2012	46,817	55,469	79,228	45,006	47,680	78,264	1,811	7,789	964
2013	37,331	45,037	65,483	44,593	51,386	81,657	-7,262	-6,349	-16,173
2-Year Balance							-5,451	1,441	-15,209

NRD Annual Balances

(2012-2013)

	Annual Balance		
Year	LRNRD	MRNRD	URNRD
2012	1,811	7,789	964
2013	-7,262	-6,349	-16,173
2-Year Balance	-5,451	1,441	-15,209

Summary

- ❑ Preliminary 2012 accounting balance, approximately +10,500 ac-ft
- ❑ Preliminary Dry-year forecast balance currently forecast at approximately -29,500 ac-ft
- ❑ Based on the preliminary forecast, the IMP checklist indicates that a Compact Call Year will be in place in 2013

Next Steps

- ❑ Each NRD will take actions to achieve a zero balance or in the alternative wells located in the rapid response will be curtailed
- ❑ The Department will issue an order and closing notices to all surface water natural flow appropriations as well as closing notices to prevent additional storage of waters until such time as Compact compliance is ensured
- ❑ The Department will complete its final forecast prior to January 1, 2013

Thank you

Questions?

Nebraska
Department of Natural Resources

