RESPONSE AREA SUMMARY PACKAGE

RESPONSE AREA NO.1

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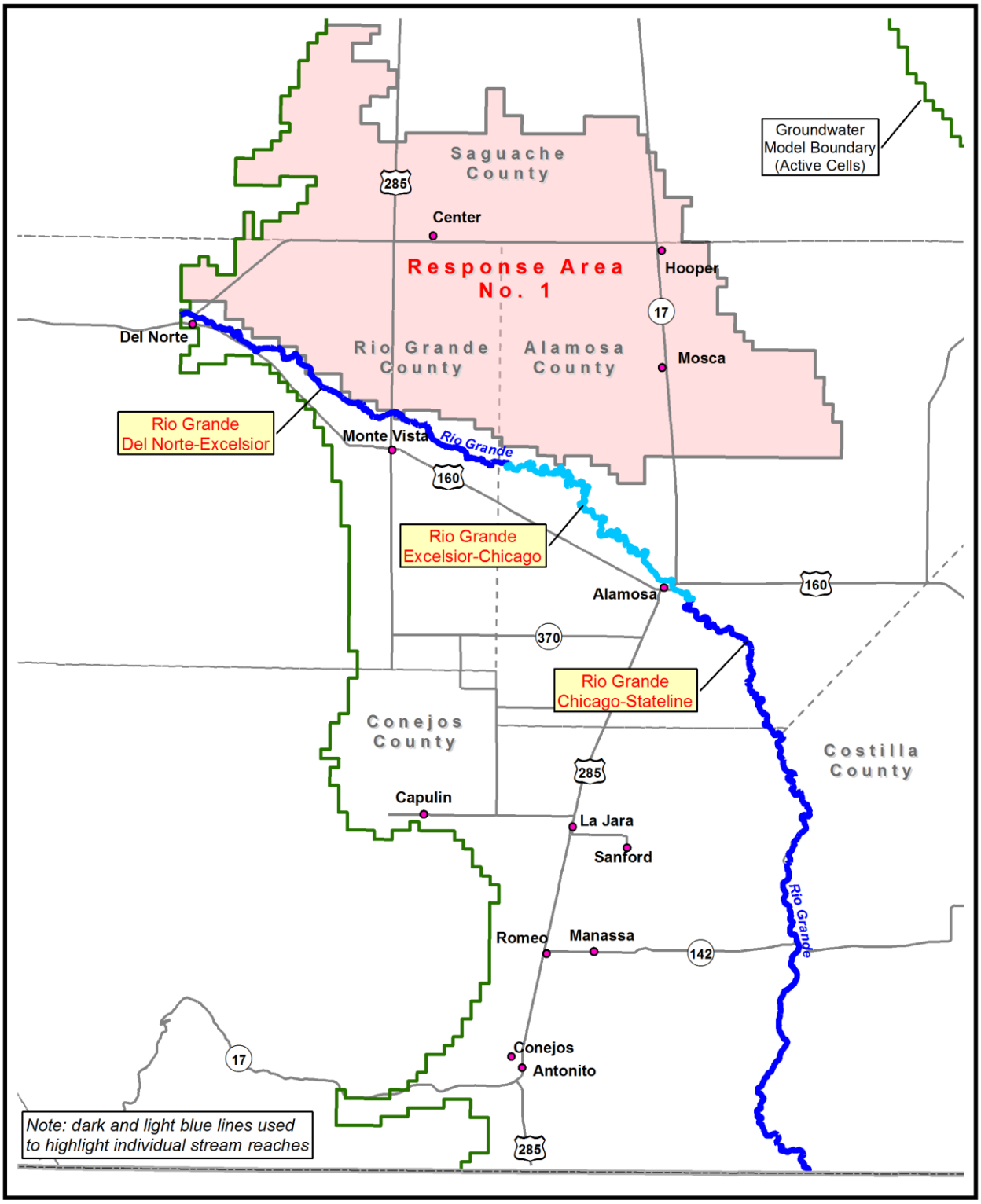

COLORADO
Division of Water Resources
Department of Natural Resources

Figure 1. Response Area No. 1 Stream Reaches with Response Functions

Table 1a: Estimated Historical and Current Year Net Stream Depletions from Groundwater Withdrawals in Response Area No. 1 (acre-feet)

Year	Rio Grande near Del Norte Stream Gage (Apr-Sep)	Net Groundwater Consumptive Use (Jan-Dec)	Net Stream Depletions (May – April)			
			Rio Grande Del Norte-Excelsior	Rio Grande Excelsior-Chicago	Rio Grande Chicago-State Line	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2001	655,233	65,822	415	1,184	-91	1,508
2002	96,717	322,490	3,276	1,932	-378	4,830
2003	261,300	234,308	5,234	2,192	-388	7,037
2004	431,675	126,966	4,837	1,967	-322	6,482
2005	682,540	70,356	4,059	1,661	-234	5,486
2006	411,656	119,657	3,660	1,626	-273	5,013
2007	593,239	23,116	3,064	1,311	-155	4,220
2008	623,333	49,201	2,700	1,148	-166	3,682
2009	513,058	-4,448	2,119	911	-90	2,940
2010	453,063	76,286	2,013	968	-166	2,815
2011	415,182	153,440	2,098	1,288	-257	3,129
2012	328,382	141,257	2,080	1,470	-254	3,296
2013	344,435	93,598	1,973	1,387	-206	3,154
2014	518,599	29,785	1,780	1,116	-132	2,764
2015	390,000	81,383	1,827	1,102	-183	2,746
Average	447,894	105,548	2,742	1,418	-220	3,940

Table 1b: Estimated Post Plan Net Stream Depletions from Groundwater Withdrawals in Response Area No. 1 (acre-feet)

Year	Rio Grande near Del Norte Stream Gage (Apr-Sep)	Net Groundwater Consumptive Use (Jan-Dec)	Net Stream Depletions (May – April)			
			Rio Grande Del Norte-Excelsior	Rio Grande Excelsior-Chicago	Rio Grande Chicago-State Line	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2016		0	1,490	858	-86	2,262
2017		0	1,344	632	-73	1,903
2018		0	1,249	505	-64	1,690
2019		0	1,184	388	-58	1,514
2020		0	969	291	-48	1,212
2021		0	807	232	-39	1,000
2022		0	520	189	-28	681
2023		0	348	154	-20	482
2024		0	296	130	-16	410
2025		0	254	111	-13	352
2026		0	213	94	-11	296
2027		0	189	70	-9	250
2028		0	169	44	-8	205
2029		0	157	25	-7	175
2030		0	122	14	-4	132
2031		0	79	6	-3	82
2032		0	45	0	-1	44
2033		0	25	0	-1	24
2034		0	13	0	0	13
2035		0	0	0	0	0
Post Plan Depletions		0	9,473	3,743	-489	12,727

Notes for Tables 1a and 1b columns:

1. Year
2. Rio Grande near Del Norte Gage streamflow in acre-feet for the period of April through September. The 2015 streamflow value is from the April 3, 2015 Division of Water Resources (DWR) Rio Grande Compact 10-Day Report.
3. Net Groundwater Consumptive Use (NetGWCU) for January through December.
    a. NetGWCU values for 2001 through 2010 were taken from the RGDSS Groundwater Model output.
    b. NetGWCU values for 2011 through 2014 were calculated using well meter data, diversion data, and irrigated acreage information.
    c. NetGWCU data for 2015 was estimated from 2014 well meter data and projected diversions based on the projected Rio Grande streamflow from the April 3, 2015 Rio Grande Compact 10-Day Report.
4. Net Stream Depletions in the Rio Grande Del Norte to Excelsior Ditch reach for the plan year (May through April) in acre-feet
5. Net Stream Depletions in the Rio Grande Excelsior Ditch to Chicago Ditch reach for the plan year (May through April) in acre-feet
6. Net Stream Depletions in the Rio Grande Chicago Ditch to the State Line reach for the plan year (May through April) in acre-feet
7. Total Net Stream Depletions columns (4+5+6) in acre-feet.

Figure 2: 2001-2015 Estimated Net Stream Depletions and Post 2015 Projected Net Stream Depletions from Groundwater Withdrawals in Response Area No. 1

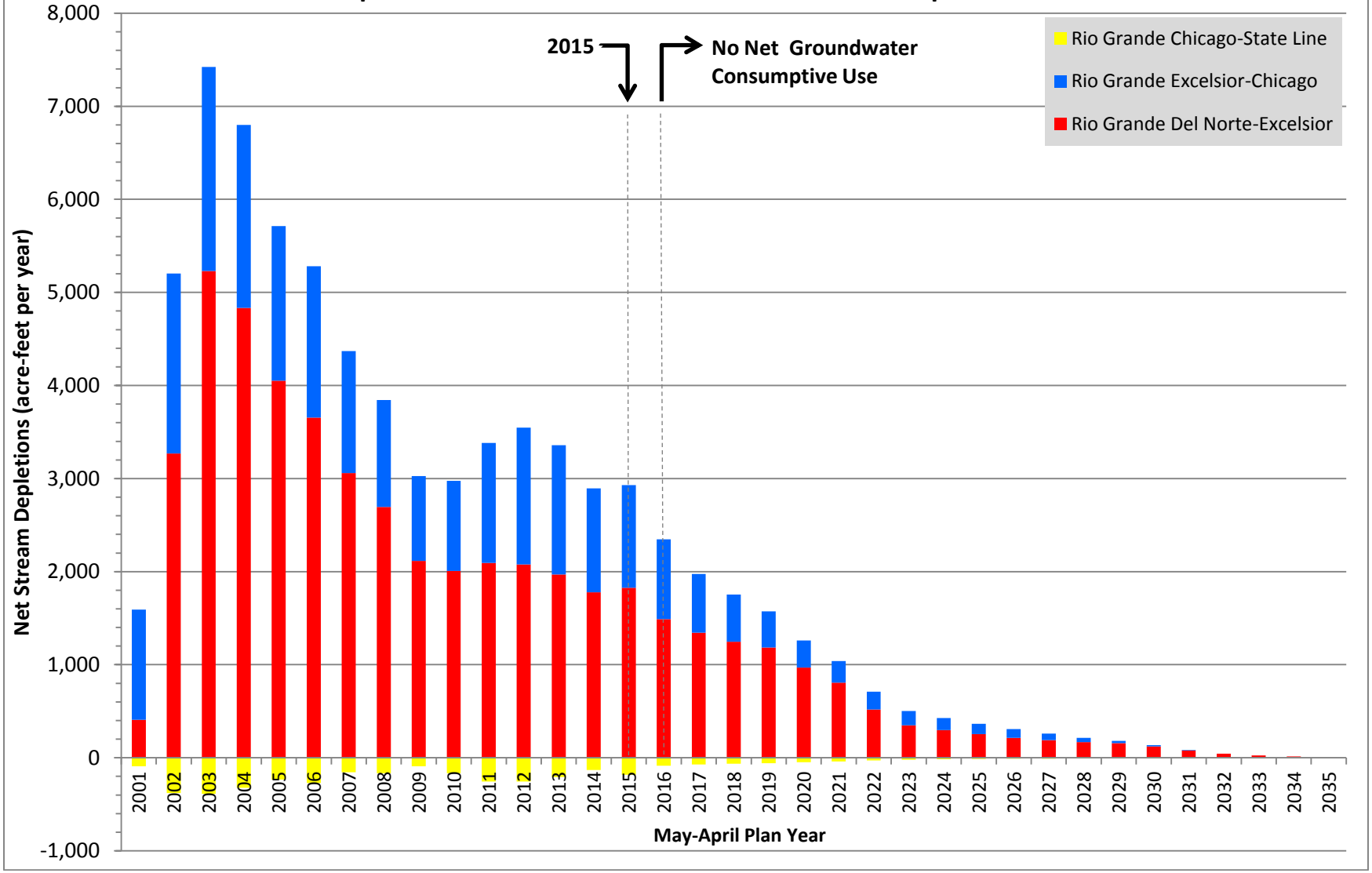

Table 2: Monthly Net Stream Depletions for 2015 Plan Year in Response Area No. 1 (acre-feet)

	2015								2016				
Stream Reach	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**Total**
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Rio Grande Del Norte-Excelsior	160	174	185	175	162	161	155	153	127	116	124	136	1,828
Rio Grande Excelsior-Chicago	107	67	72	57	63	75	97	109	114	110	127	104	1,102
Rio Grande Chicago-State Line	-6	-62	-11	-20	-10	-15	0	5	-6	-12	-16	-30	-183
Total	261	179	245	212	215	221	252	267	234	214	235	210	2,747

Notes for columns:

1 Stream reach

2-13 Monthly Net Stream Depletions in acre-feet

14 Total Plan Year Net Stream Depletions in acre-feet