Supplementary Material

Depletion and Capture: Revisiting "The Source of Water Derived From Wells"

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Table S1. Supporting data and references for estimates of groundwater depletion.

AREA	PERIOD OF ANALYSIS	TOTAL Well Withdrawals (km^3)	Groundwater Depletion Volume (km^3)	DEPLETION FRACTION	CAPTURE FRACTION	PRIMARY REFERENCES[1]
Maryland-Delaware coastal plain	1900-2000	8.2	1.6	0.195	0.805	Fleck and Vroblesky 1996; Soeder et al. 2007
New Jersey coastal plain	1900-80	14.6	1.2	0.082	0.918	Martin 1998
Virginia coastal plain	1891-2003	8.4	4	0.476	0.524	Heywood and Pope 2009
North Carolina-South Carolina coastal plain	1900-2003	25.5	3.8	0.149	0.851	Coes et al. 2010; Petkewich and Campbell 2007
Floridan and related aquifers, Florida, Georgia, and South Carolina	1950-2005	333	3.5	0.011	0.989	Johnston 1999; Payne et al. 2005
Coastal lowlands of Alabama, Florida, Louisiana, and Mississippi	1898-1987	124.6	36.6	0.294	0.706	Martin and Whiteman 1999
Houston area and northern part of Texas Gulf Coast	1891-2009	73.1	36.9	0.505	0.495	Kasmarek 2012
Central part of Gulf Coast aquifer system in Texas	1920-99	40	4.6	0.115	0.885	Chowdhury et al. 2004

Source: Konikow and Leake, 2014, Groundwater,[1]
v. 52, Issue S1, pgs. 100-111.

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Mississippi embayment	1900-2007	413.4	174.4	0.422	0.578	Clark and Hart 2009
High Plains (Ogallala) aquifer	1950-2000	907.4	243	0.268	0.732	McGuire et al. 2003
Central Valley, California	1961-2003	483.2	71.2	0.147	0.853	Faunt et al. 2009
Alluvial basins, Arizona	1915-80	227	123.4	0.544	0.456	Anderson et al. 1992
Antelope Valley, California	1915-95	17.8	10.5	0.590	0.410	Leighton and Phillips (2003)
Death Valley region, California-Nevada	1913-98	3.3	3.2	0.970	0.030	Faunt et al. 2010
Escalante Valley, Utah	1937-77	2.5	1.6	0.640	0.360	Mower 1982
Estancia Basin, New Mexico	1940-96	3.4	1.6	0.471	0.529	Shafike and Flanigan 1999
Hueco Bolson, New Mexico-Texas	1903-96	7.04	4.23	0.601	0.399	Heywood and Yager 2003
Las Vegas Valley, Nevada	1912-95	4.3	2.4	0.558	0.442	Morgan and Dettinger 1996
Milford area, Utah	1931-2000	3.5	1.0	0.286	0.714	Mason 1998; Slaugh 2002
Mojave River Basin, California	1931-90	11.4	2.95	0.259	0.741	Stamos et al. 2001
Pahvant Valley, Utah	1946-2001	4.5	0.86	0.191	0.809	Holmes and Thiros 1990; Swenson 2002
Pecos River Basin, Texas	1940-2000	24.9	20.2	0.811	0.189	Jones 2001
San Luis Valley, Colorado	1940-79	17.2	2.38	0.138	0.862	Emery 1979; Hearne and Dewey 1988

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Tularosa Basin, New Mexico	1948-95	1.21	0.72	0.595	0.405	Huff 2005
Columbia Plateau aquifer system	1984-2007	33.6	4.1	0.122	0.878	Vaccaro 1999; Snyder and Haynes 2010
Snake River Plain, Idaho	1980-2001	60.5	4	0.066	0.934	Garabedian 1992; Cosgrove et al. 2006
Black Mesa area, Arizona	1965-2000	0.222	0.206	0.928	0.072	Brown and Eychaner 1988
Cambrian-Ordovician aquifer system	1901-80	37.5	11.2	0.299	0.701	Mandle and Kontis 1992
Dakota aquifer, South Dakota	1881-1980	19.7	15.3	0.777	0.223	Bredehoeft et al. 1983; Konikow and Neuzil 2007
Denver Basin, Colorado	1900-2003	9.65	1	0.104	0.896	Banta et al. 2011
U.S. total	1950-2005	5340	812	0.152	0.848	Konikow 2013; Kenny et al. 2009
North China Plain	1960-2008	803	197	0.245	0.755	Cao et al. 2013
Nubian aquifer system[2]	1960-98	1.41	1.19	0.844	0.156	CEDARE 2001

[1] Additional documentation and references for all systems in Konikow (2013).

[2] Rates and fractions for Nubian aquifer system are for 1998 only, but based on a model calibrated to data for 1960-98.

REFERENCES

Anderson, T.W., G.W. Freethey, and P. Tucci. 1992. Geohydrology and water resources of alluvial basins in south-central Arizona and parts of adjacent states. U.S. Geological Survey Professional Paper 1406–B, 67 p.

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