
From: Kunysz,Kathy
Sent: Friday, July 10, 2015 11:35 AM
To: Ti,Mike N
Subject: FW: MWD IRP UPDATE: WESTERN GROUNDWATER HOMEWORK

No response

From: Kunysz,Kathy
Sent: Tuesday, June 09, 2015 11:40 AM
To: Leasa Cleland (LCleland@wmwd.com); tbarr@wmwd.com; LLeMoine@wmwd.com; John Rossi (jrossi@wmwd.com); Craig Miller (CMiller@wmwd.com)
Cc: Kunysz,Kathy; Hacker,Matthew D; Sumi,David H; Nevills,Jennifer C
Subject: MWD IRP UPDATE: WESTERN GROUNDWATER HOMEWORK

Dear Member Agency Manager and Staff,

Attached is the excel spreadsheet(s) for your agency showing draft projections for groundwater production and projections of sources and amounts of groundwater recharge in normal and multiple-dry-year situations. This information is being used in Metropolitan's 2015 update of its Integrated Resources Plan. Also attached is a slide from the IRP Member Agency Workshop #1 for Groundwater held on May 27. The slide shows a draft projection of the total regional deficit of groundwater recharge under the multiple-dry-year scenario. As part of this IRP Update, it is our objective to finalize this deficit amount with your input, and to identify strategies and policies to address it. Metropolitan is seeking to ensure that groundwater production is sustainable—groundwater is a significant element of regional water supply reliability.

Please review your spreadsheet carefully **and provide corrections to the production and recharge projections in RED.** Please also list the assumption/rationale for the correction in RED. When reviewing the groundwater production projections, please note that Metropolitan has assigned groundwater production within a Metropolitan member agency's service area to that member agency. Also, the data is shown by calendar year.

Please return the modified spreadsheets to David Sumi with copy to Kathy Kunysz and Matt Hacker by Monday, June 22. If you have questions, please call Kathy Kunysz (213-217-6272) or Matt Hacker (213-217-6756). We will report the adjusted projections at an IRP workshop later this summer.

Thank you,
Kathy Kunysz
Program Manager, Groundwater Issues
Metropolitan Water District of Southern California



Western.xlsx

gww workshop rechar
deficit slides...

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Western Municipal Water District of Riverside County

			Average																																														
Agency	Type	IMP/EXP	Basin/Reservoir	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050				
Western	GW	OWN	Bedford Basin	381	505	57	-	-	189	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200		
Western	GW	OWN	Bunker Hill Basin	51,752	53,118	56,177	61,992	61,370	57,002	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	
Western	GW	OWN	Chico Basin	28,047	33,688	15,175	13,278	17,689	11,176	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200
Western	GW	OWN	Coldwater Basin	3,704	3,710	2,044	5,709	2,408	3,515	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500
Western	GW	OWN	Elsinore Basin	5,688	6,214	2,575	-	5,540	4,003	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
Western	GW	OWN	Lee Lake Basin	516	575	54	530	-	395	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
Western	GW	OWN	Riverside Basin	50,184	36,098	39,852	47,892	38,681	42,541	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500
Western	GW	OWN	Temecula-Murietta Basin	15,945	14,095	14,872	7,411	16,219	13,708	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700	13,700
Western	GW	OWN	Temescal Basin	11,416	11,216	11,382	18,999	11,754	11,954	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000
Total GW				157,631	139,818	142,189	143,810	153,660	147,422	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400			
Western	GWR	OWN	Temescal Basin	12,413	11,604	11,605	10,955	10,924	11,500	9,927	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429	9,429		
Western	GWR	OWN	Chico Basin	11,136	11,617	11,105	10,984	10,240	11,034	10,422	11,326	11,119	16,135	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	
Western	GWR	OWN	Arlington Basin	0	5,419	15,611	4,886	6,061	4,395	5,839	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	
Total GWR				23,549	28,639	28,410	26,825	27,225	26,929	26,187	24,854	26,648	29,664	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029	31,029		
Total Groundwater				181,180	168,457	170,599	170,634	180,886	174,351	172,254	174,048	177,064	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429	178,429			

Grandwater Projection			2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050				
Projection			147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400	147,400

Surface Water			2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050				
Western	SUR	OWN	Canyon Lake	2,476	3,976	3,696	16,445	773	5,473	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500

Surface Projection			2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050		
Projection			5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500

Recharge			Normal Year																											
Agency	Type	IMP/EXP	Basin/Reservoir	2014	2015	2016	2017	2018	2019	2020	2021	2022																		

How to Address Multiple-Year Dry Cycle

