
From: Kunysz,Kathy
Sent: Friday, July 10, 2015 11:29 AM
To: Ti,Mike N
Subject: FW: MWD IRP UPDATE: SANTA MONICA GROUNDWATER HOMEWORK
Attachments: Production Estimates to MWD.xlsx

From: Jessica Arden [mailto:Jessica.Arden@SMGOV.NET]
Sent: Wednesday, June 24, 2015 9:45 AM
To: Kunysz,Kathy
Subject: RE: MWD IRP UPDATE: SANTA MONICA GROUNDWATER HOMEWORK

Hi Kathy,

Thank you so much for your clarification. I left a few notes in the excel sheet. We have just hired a designer for the location analysis and design of 3 new (budgeted) wells. I hope this helps.

Sincerely,
Jessica

From: Kunysz,Kathy [mailto:kkunysz@mwdh2o.com]
Sent: Wednesday, June 24, 2015 9:14 AM
To: Jessica Arden
Subject: RE: MWD IRP UPDATE: SANTA MONICA GROUNDWATER HOMEWORK

Jessica,
Answers below. Please feel free to call. Thanks very much for your help with this.
Kathy
213-217-6272

From: Jessica Arden [mailto:Jessica.Arden@SMGOV.NET]
Sent: Tuesday, June 23, 2015 5:06 PM
To: Kunysz,Kathy
Subject: FW: MWD IRP UPDATE: SANTA MONICA GROUNDWATER HOMEWORK

Dear Kathy,

Please forgive me, I was forwarded your message late, and am hoping to get back to you tomorrow, but I need some clarification.

The City of Santa Monica pumps approximately 10MGD from all of our wells, and produces roundly 9MGD. We are also expanding our production over the next 5 years to include an additional 3MGD.

I will convert these numbers to AF and forward to you. However I am not clear on a few items

- 1) Are you asking for our pumping rate or produced water volume **AF—produced for the calendar year**
- 2) What is the difference between the Groundwater section(in Black) and the Groundwater Projection section (in blue) on the attached excel sheet? Should these be the same number? **These re repeats. Our modelers are using their averaging rules for gw production. However, we believe that the average (5400 AF) is not appropriate for use in the projection. We understand that Santa Monica may produce as much as 11000 AF per year now with the**

wells back online. We'd like the city's best projection of annual AF of gw production for the future. The projection does not need to be flat. It would be great if you could provide a phrase or two of explanation for your changes.

- 3) What information are you asking for in the Average and New Wells section (in blue)? Our average production until we bring new wells on line? And new wells just in future years? **Yes—but only reasonably firm plans.** Should they be cumulative if we bring new wells on line at different times? **No, just show changes over time if there are any firm plans for additional production.** We're not looking for speculation. If there are some ideas for changes (non-firm type of plans), could you note those—but leave them out of the table.

Thank you,

Jessica Arden, PE
Water Resources Engineer
City of Santa Monica, CA

From: Kunysz, Kathy [<mailto:kkunysz@mwdh2o.com>]
Sent: Tuesday, June 09, 2015 11:41 AM
To: Gil Borboa
Cc: Kunysz, Kathy; Hacker, Matthew D; Sumi, David H; Nevills, Jennifer C
Subject: MWD IRP UPDATE: SANTA MONICA GROUNDWATER HOMEWORK

Dear Member Agency Manager and Staff,

Attached is the excel spreadsheet 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

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City of Santa Monica

Groundwater				Range																																										
Agency	Type	IMP/EXP	Basin/Res	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	
Santa Monica	GW	OWN	Santa Mon	2,062	3,127	6,675	6,759	8,218	5,388	10,200	10,200	10,200	11,600	13,000	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400

Groundwater 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									
Projected by year	10,200	10,200	10,200	11,600	13,000	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	
New Wells:																																														

*** Santa Monica has begun a project to construct 3 new wells and increase production by 2500 GPM total (or 3400 ACY per well). These numbers are shown in the projections.

1,400 1,400 1,400

Recharge

No recharge data for Santa Monica.