
From: Kunysz,Kathy
Sent: Friday, July 10, 2015 11:28 AM
To: Ti, Mike N
Subject: FW: MWD IRP UPDATE: SANTA MONICA GROUNDWATER HOMEWORK

From: Kunysz,Kathy
Sent: Thursday, June 25, 2015 4:56 PM
To: Jessica Arden
Subject: RE: MWD IRP UPDATE: SANTA MONICA GROUNDWATER HOMEWORK

Jessica,
Thank you for the input on the spreadsheet. Will the new wells be located within the Santa Monica groundwater basin? The projection suggests that the 14,400 AFY production level from the basin will be sustainable. Has the city conducted safe yield studies for the basin? Our data for the Arcadia, Olympic and Charnock subbasins indicates that total production prior to contamination in the mid 1990s was about 9500AFY. Is an annual report on basin recharge, production, water levels, etc published? We have little information on the basin and current conditions.

Thank you,
Kathy Kunysz
Program Manager, Groundwater Issues
Metropolitan Water District
213-217-6272

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 ff 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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