From: Kunysz,Kathy

Sent: Friday, July 10, 2015 11:27 AM

To: Ti,Mike N

Subject: FW: MWD IRP UPDATE: ULARA GROUNDWATER HOMEWORK

From: Reed, Greg [mailto:Greg.Reed@ladwp.com]

Sent: Monday, June 29, 2015 11:19 AM

To: Kunysz, Kathy

Subject: RE: MWD IRP UPDATE: ULARA GROUNDWATER HOMEWORK

Hi Kathy, it may be best to discuss by phone about our Central Basin pumping forecast. Here is a table summary of our storage accumulation, usage, and production. I can explain during our call.

Thanks, Greg Reed LADWP Water Resources 213-367-2117

	Entitlement	Storage	Carryover	Total	Production
July 1, 2014	16,500	3,000	5,250+3,300	29,250	8,000
2015	16,500+1,503	6,300	5,250+3,300	32,853	10,000
2016	u	9,600	5,250+3,300	36,153	10,000
2017	u	12,900	5,250+3,300	39,453	15,000
2018	16,546+1,503	16,200	5,250+3,049	42,548	18,500
2019	u	19,249	5,250+(451)	42,097	18,500
2020	u	18,798	5,250+(451)	41,646	18,500
2021	u	18,347	5,250+(451)	41,195	18,500
	u		•••		18,500
2050	u	4,817	5,250+(451)	27,2665	18,500

From: Kunysz,Kathy [mailto:kkunysz@mwdh2o.com]

Sent: Friday, June 26, 2015 3:25 PM

To: Reed, Greg

Subject: RE: MWD IRP UPDATE: ULARA GROUNDWATER HOMEWORK

How does LA have 50,000af of carryover in Central?

From: Reed, Greg [mailto:Greg.Reed@ladwp.com]

Sent: Friday, June 26, 2015 3:22 PM

To: Kunysz, Kathy

Subject: RE: MWD IRP UPDATE: ULARA GROUNDWATER HOMEWORK

We have stored water credits that will be used beginning 2018 and deplete in 25 yrs. Not sure if my last minute edits removed the end of stored water use, at which time we would decrease pumping to 16,546 AF (LA's new CB entitlements plus 1,503 transfer from WCB).

Hope this helps, Greg

From: Kunysz,Kathy [mailto:kkunysz@mwdh2o.com]

Sent: Friday, June 26, 2015 3:11 PM

To: Reed, Greg

Subject: RE: MWD IRP UPDATE: ULARA GROUNDWATER HOMEWORK

Greg,

How do you get to 18,500 afy production from central basin beginning in 2018? Central Basin APA is 15,049 af. West Coast is 1503 af. Even if DWP pumped its west coast water in Central Basin, I can't get to 18,500 thru 2050.

Thanks, Kathy

From: Reed, Greg [mailto:Greg.Reed@ladwp.com]

Sent: Friday, June 26, 2015 2:53 PM

To: Kunysz, Kathy

Cc: Hsu, Chiun-Gwo (Simon)

Subject: RE: MWD IRP UPDATE: ULARA GROUNDWATER HOMEWORK

Hi Kathy,

Ok, your changes sound great. I'm good with changing back to Calendar Year basis for LADWP's pumping history. But I think pumping forecast is same for any rolling 12 months and should be ok to remain as provided.

Concerning West Coast Basin, I thought the figures provided were for production by others, but I wasn't sure why. Do you need verification of historic pumping and updates to the forecast?

For Eagle Rock, Sparkletts is the only party pumping from the basin and I would assume their use of Eagle Rock groundwater would <u>not</u> be useful for the IRP. If needed, I can check the historic Eagle Rock pumping which I would seem to be a reasonable forecast of their future pumping.

Have a great weekend, Greg Reed LADWP Water Resources 213-367-2117

From: Kunysz,Kathy [mailto:kkunysz@mwdh2o.com]

Sent: Friday, June 26, 2015 2:40 PM

To: Reed, Greg

Subject: FW: MWD IRP UPDATE: ULARA GROUNDWATER HOMEWORK

Greg

I'm reviewing the markup to the spreadsheets. Thanks very much for looking at this and providing feedback. I notice that you corrected production numbers. I made the same observations as you before we sent out to DWP. It was pointed out to me that Met assigns ALL the production within DWP's service area to DWP. So the private production is included (that is why DWP has production in West Basin). The other thing is that the Met staff use CALENDAR YEAR. I tried to warn you about these little details in my original email. As a result, I'm going to take your adjustments and add them

back into the original. This should account then for both bringing Manhattan wellfield back online as well as include private production. I will send to you for review.

Kathy

From: Hsu, Chiun-Gwo (Simon) [mailto:Simon.Hsu@ladwp.com]

Sent: Monday, June 22, 2015 8:59 AM

To: Sumi, David H

Cc: Hacker, Matthew D; Kunysz, Kathy; Reed, Greg; Yegiazaryan, Heather; Acevedo, Mario; Tsunehara, Yoshiko; Kwan,

Delon; Viramontes, Rafael; Almaraz, Jaime; Dugan, Peter

Subject: RE: MWD IRP UPDATE: ULARA GROUNDWATER HOMEWORK

David,

Attached is LA's completed homework on both ULARA and Central-West Coast groundwater basins.

Simon

From: Kunysz,Kathy [mailto:kkunysz@mwdh2o.com]

Sent: Tuesday, June 09, 2015 11:40 AM

To: Dugan, Peter; Hsu, Chiun-Gwo (Simon); Kwan, Delon; Viramontes, Rafael; Pettijohn, David; Falcon, Penny; Yegiazaryan, Heather; Reed, Greg; Lacombe, Sarah; BDoxsee@burbankca.gov; AUmphenour@burbankca.gov; Rtakidin@GlendaleCA.GOV; CMarcarello@sfcity.org; TSalazar@sfcity.org; TSalazar@sfcity.org; TSalazar@sfcity.org; TSalazar@sfcity.org;

Cc: Kunysz,Kathy; Hacker,Matthew D; Sumi,David H; Nevills,Jennifer C
Subject: MWD IRP UPDATE: ULARA GROUNDWATER HOMEWORK

Dear Member Agency and Groundwater Managers and Staff,

Attached are the excel spreadsheets for your agency and groundwater basin 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 component of regional water supply reliability.

Where there are multiple member agencies overlying a groundwater basin, we have sent the spreadsheets to all overlying member agencies and to the groundwater basin manager. The intent is for a coordinated review. Please review your spreadsheet(s) 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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