SJRRP Daily Seepage Evaluation Log - Water Year 2010

March 9, 2010

Based on preliminary data, flow exceeded 475 cfs in Reach 2A as recorded at the Gravelly Ford gaging station on March 8, 2010. Flow exceeded 475 cfs in Reach 3 as recorded at the Mendota Pool gaging station on March 8, 2010. Based on the available information below, no seepage problems are anticipated and Reclamation will continue with the Interim Flow releases as scheduled. Daily evaluations will continue while flow remains above this evaluation threshold.

As of 8:00 AM, March 10, 2010, Reclamation personnel have reported the following:

1. Flows are below known conveyance thresholds (8,000 cfs in Reach 2A, 1,300 cfs in Reach 2B, and 1,300 cfs in Reach 3) based on preliminary real-time data.

2. Mendota Pool operations calls did not identify groundwater seepage or flow problems.

3. The seepage hotline received no calls that reported the potential for probable or imminent seepage problems.

4. Real-time groundwater in Reach 2B and 3 wells has not risen above identified groundwater level thresholds.

5. Manually monitored groundwater wells do not show groundwater levels above identified thresholds, with the exception of well R2B-1 which shows a depth below ground surface of 5.57 ft (as of 3/4/2010). The buffer zone for this well is 4-6 feet.

6. Known upstream conditions do not indicate likely seepage impacts.

DATA:

- Most recent stage and flow data: <u>http://restoresjr.net/maps/SJRRarea_Map.html</u>
- Real-time Wells: Three wells in Reaches 2B and 3 are real-time and posted on CDEC. Links are available on restoresjr.net under "Interim Flows Information". <u>http://restoresjr.net/activities/if/index.html</u>
- Weekly Groundwater Report: Manual measurements taken weekly via electronic well sounder of groundwater monitoring wells in Reaches 2A, 2B, 3 and 4 are provided in the Weekly Groundwater Report. <u>http://restoresjr.net/activities/if/index.html</u>
- Well Atlas: Manual measurements for all wells are provided in the well atlas, available on the Interim Flows Information page under "Well Atlas". <u>http://restoresjr.net/activities/if/index.html</u>
- Bench Evaluation: The most recent evaluation for the decision to increase to the next flow bench is available at: <u>http://restoresjr.net/activities/if/index.html</u> under "Flow Bench Evaluation".

BACKGROUND:

Condition 9 of Order Water Right 2009-0058-DWR (Order) for the Water Year 2010 Interim Flows Project issued by the State Water Resources Control Board requires Reclamation to conduct a daily evaluation of groundwater levels and flow and stage levels when flows are greater than 475 cubic feet per second (cfs) in Reaches 2A and 3 and post the results of this evaluation to a publicly available website.

March 10, 2010

Conditions are the same as March 9, 2010 with the exception of:

5. Manually monitored groundwater wells do not show groundwater levels above identified thresholds, with the exception of wells R2B-1 and MW-49B. R2B-1 shows a depth below ground surface of 5.58 ft (buffer 4-6 feet). The groundwater in MW-49B was measured at 5.79 feet below ground surface (buffer 4-6 feet).

March 15, 2010

Conditions are the same as March 10, 2010 with the exception of:

Based on preliminary data, flow exceeded 475 cfs in Reach 2A as recorded at the Gravelly Ford gaging station on March 13, 2010.

3. The seepage hotline received two calls, on March 4th regarding R2B-1, and on March 11th regarding an airstrip near river mile 238.5. The R2B-1 site evaluation determined flow releases could continue as planned. The river mile 238.5 site evaluation is currently underway.

March 16, 2010

Conditions are the same as March 15, 2010 with the exception of:

Releases at Friant Dam increase to 800 cfs today.

3. The seepage hotline received two calls, on March 4th regarding R2B-1, and on March 11th regarding an airstrip near river mile 238.5. Both site evaluations determined the planned releases could proceed.

5. Manually monitored groundwater wells do not show groundwater levels above identified thresholds, with the exception of wells R2B-1 and MW-49B. R2B-1 shows a depth below ground surface of 5.58 ft, with groundwater levels stabilizing (buffer 4-6 feet). The groundwater in MW-49B was measured at 5.79 feet below ground surface (buffer 4-6 feet). A site investigation of MW-49B is currently underway, but the current groundwater level is deemed unlikely to affect alfalfa crops in the adjacent field. Planned releases can proceed.

March 17, 2010

Conditions are the same as March 16, 2010 with the exception of:

3. The seepage hotline received three calls, on March 4th regarding R2B-1, on March 11th regarding an airstrip and pomegranate orchard near river mile 238.5, and on March 15th regarding Fort Washington campground. All evaluations determined the planned releases could proceed.

March 18, 2010

Conditions are the same as March 17, 2010.

March 22, 2010

Conditions are the same as March 18, 2010 with the exception of:

5. Manually monitored groundwater wells do not show groundwater levels above identified thresholds, with the exception of wells R2B-1, MW-49B, and MW-55B. R2B-1 shows a depth below ground surface of 5.45 ft, with groundwater levels stabilizing (buffer 4-6 feet). The groundwater in MW-49B was measured at 5.9 feet below ground surface (buffer 4-6 feet). MW-55B was measured at 8.0 feet below ground surface (buffer 6-8 feet).

7. Telemetered ground water well R37 is offline and is being investigated.

March 23, 2010

Conditions are the same as March 22, 2010 with the exception of:

7. Telemetered ground water well R37 was offline but resumed reporting hourly at 2pm today.

March 24, 2010

Conditions are the same as March 23, 2010.

March 25, 2010

Conditions are the same as March 24, 2010 with the exception of:

5. Manually monitored groundwater wells do not show groundwater levels above identified thresholds, with the exception of wells R2B-1, MW-49B, and MW-55B. R2B-1 shows a depth below ground surface of 5.4 ft, with groundwater levels stabilizing (buffer 4-6 feet). The groundwater in MW-49B was measured at 5.3 feet below ground surface (buffer 4-6 feet). MW-55B was measured at 7.1 feet below ground surface (buffer 6-8 feet).

March 26, 2010

Conditions are the same as March 25, 2010.

March 29, 2010

Conditions are the same as March 26, 2010 with the exception of:

Releases at Friant Dam increase to 1100 cfs today.

2. Mendota Pool operations calls identified a potential need to change gate operations at Chowchilla Bifurcation Structure to pass a sand dune through the structure.

3. The seepage hotline received four calls, on March 4th regarding R2B-1, on March 11th regarding an airstrip and pomegranate orchard near river mile 238.5, on March 15th regarding Fort Washington Beach campground, and on March 26th regarding CCID well 144. All evaluations determined the planned releases could proceed.

March 30, 2010

Conditions are the same as March 29, 2010.

March 31, 2010

Conditions are the same as March 30, 2010.

April 1, 2010

Conditions are the same as March 31, 2010.

<u>April 2, 2010</u>

Conditions are the same as April 1, 2010.

April 5, 2010

Conditions are the same as April 2, 2010 with the exception of:

3. The seepage hotline received five calls or emails: on March 4th regarding R2B-1, on March 11th regarding an airstrip and pomegranate orchard near river mile 238.5, on March 15th regarding Fort Washington Beach campground, on March 26th regarding CCID well 144, and on April 3rd regarding drains in Nickel's property in Reach 4B. The April 3rd call is currently undergoing a site evaluation, and the other call evaluations determined planned releases could continue.

5. Manually monitored groundwater wells do not show groundwater levels above identified thresholds, with the exception of wells R2B-1, MW-49B, MW-55B, and MW-47. R2B-1 shows a depth below ground surface of 5.53 ft, with groundwater levels stabilizing (buffer 4-6 feet). The groundwater in MW-49B was measured at 5.15 feet below ground surface (buffer 4-6 feet). MW-55B was measured at 6.96 feet below ground surface (buffer 6-8 feet). MW-47 was measured at 7.97 feet (buffer 6-8 feet).

<u>April 6, 2010</u>

Conditions are the same as April 5, 2010.

April 7, 2010

Conditions are the same as April 6, 2010.

April 8, 2010

Conditions are the same as April 7, 2010.

<u>April 9, 2010</u>

Conditions are the same as April 8, 2010 with the exception of:

3. The seepage hotline received six calls or emails: on March 4th regarding R2B-1, on March 11th regarding an airstrip and pomegranate orchard near river mile 238.5, on March 15th regarding Fort Washington Beach campground, on March 26th regarding CCID well 144, on April 3rd regarding drains in Nickel's property in Reach 4B, and on April 9th again regarding drains in Nickel's property in Reach 4B. All call evaluations determined planned releases could continue.

April 12, 2010

Conditions are the same as April 9, 2010 with the exception of:

Releases at Friant increase to 1500 cfs today.

5. Manually monitored groundwater wells do not show groundwater levels above identified thresholds, with the exception of wells R2B-1, MW-49B, MW-55B, and MW-47. R2B-1 shows a depth below ground surface of 4.22 ft (buffer 4-6 feet). The groundwater in MW-49B was measured at 4.54 feet below ground surface (buffer 4-6 feet). MW-55B was measured at 6.33 feet below ground surface (buffer 6-8 feet). MW-47 was measured at 7.42 feet (buffer 6-8 feet).

April 13, 2010

Conditions are the same as April 12, 2010 with the exception of:

Releases at Friant decrease to 1250 cfs today due to exchangeable demand at Mendota Pool.

<u>April 14, 2010</u>

Conditions are the same as April 13, 2010.

April 15, 2010

Conditions are the same as April 14, 2010

April 16, 2010

Conditions are the same as April 15, 2010 with the exception of:

5. Manually monitored groundwater wells do not show groundwater levels above identified thresholds, with the exception of wells R2B-1, MW-49B, MW-55B, and MW-47. R2B-1 shows a depth below ground surface of 4.61 ft (buffer 4-6 feet). The groundwater in MW-49B was measured at 4.3 feet below ground surface (buffer 4-6 feet). MW-55B was measured at 5.82 feet below ground surface (buffer 6-8 feet). MW-47 was measured at 7.3 feet (buffer 6-8 feet).

April 19, 2010

Conditions have changed from April 16, 2010 as follows:

Release from Friant Dam increased to 1350 cfs on April 17th, and is limited to 1350 cfs due to exchangeable rates at Mendota Pool.

- 1. Friant Dam releases can be increased to 1600 cfs with partial recapture at Mendota Pool. Release should be reduced by anticipated Cottonwood and Little Dry Creek inflows so as not to exceed 1300 cfs at the Chowchilla Bifurcation Structure.
- 2. Sack Dam releases should be maintained at 700 cfs due to potential Reach 4 seepage impacts.
- 3. Mendota Dam can release water to meet the 700 cfs flow target at Sack Dam and limit releases for the SJRRP such that the combined releases for Interim Flows and Arroyo Canal deliveries do not exceed 1300 cfs.

Based on the available information below, no seepage problems are anticipated within these operating criteria and Reclamation will continue with the Interim Flow releases as scheduled.

As of April 19, 2010:

- 1. Flows rates from provisional real-time data are below known conveyance thresholds (8,000 cfs in Reach 2A, 1,300 cfs in Reach 2B, and 1,300 cfs in Reach 3).
- 2. Mendota Pool operations calls did not identify any issues.
- 3. The seepage holline received six calls or emails: on March 4th regarding R2B-1, on March 11th regarding an airstrip and pomegranate orchard near river mile 238.5, on March 15th regarding Fort Washington Beach campground, on March 26th regarding CCID well 144, on April 3rd regarding drains in Nickel's property in Reach 4B, and on April 9th again regarding drains in Nickel's property in Reach 4B. All call evaluations determined planned releases could continue with the current restrictions in flows over Sack Dam.
- 4. Real-time provisional groundwater data does not show groundwater depths crossing identified thresholds.
- 5. Manually monitored groundwater wells do not show unaddressed groundwater depths crossing identified thresholds. CCID maintained shallow groundwater observation wells show high groundwater depths as reported below.
- 6. Measured losses in Reach 2A from operations estimates show approximately 240 cfs. Changes in flows below Sack Dam appear to be stabilizing based on CDEC stage telemetry.

Seepage hotline call #4 was emailed on March 26, 2010 regarding groundwater levels in CCID monitoring well 144 in reach 4A with reported levels near the top of the buffer zone. A site evaluation was conducted on March 29. This bench evaluation continues prior release rates in this Reach.

Seepage hotline call #5 was emailed on April 3, 2010 regarding water in seep drains around Jim Nickel's property in Reach 4B. The site was evaluated on April 9th and found to have water table elevations beneath the field from 4.3 – 8 feet below ground surface. The proposed buffer zone for alfalfa and tomatoes, the applicable crops in this field, is 4-6 feet below ground surface. Evaluation determined that further increases in San Joaquin River flows through Reach 4A may risk seepage impacts. A reduction in flows in this area would likely complicate the data collection efforts of the SJRRP, but would not reduce the risk of impact. Mr. Nickel called the seepage hotline the morning of April 10th to discuss the site, which was recorded as seepage hotline call #6. A follow-up call by Reclamation on the evening of April 10th discussed the evaluation process. Measurements taken on April 14th in this area are summarized in Tables 2 and 3. Levels appear to be similar to those on April 9th. Planned flow releases can continue.

Monitoring Well 55B, at San Mateo Road on the left bank, is measured at 5.82 feet. This is above the top of the buffer zone. A site investigation and evaluation on March 29th identified a groundwater table sloping down, away from the river to depths of 20 feet bgs. Crops consist of young palm trees near the river and pistachios farther inland. Young trees are unlikely to have extensive root systems and pistachios are salt tolerant. Reclamation staff met with the landowner – Baker Farms – on April 9, 2010 to discuss allowing groundwater levels to potentially rise up to 5 feet below ground surface. The landowner did not identify concerns with the proposed increase, and levels have not reached the agreed-upon 5 feet at this time.

Data

The weekly groundwater report with manual measurements via electronic well sounder and recent flow data is available at: http://restoresjr.net/activities/if/index.html.

Table shows the current and previously predicted rise in groundwater based on estimated changes in river stage and the conceptual model shown in Figure . (See the April 12th Flowbench Evaluation for more information.) Subsequent pages show the rating curves for each of the key wells. (Mussetter Engineering, Inc., 2008. *San Joaquin HEC-RAS Model Documentation*. Technical Memorandum prepared for California Dept. of Water Resources, Fresno, California, June 2). Rating curves were updated April 9, 2010 for MW-55B to include a linear trend rating curve developed from Reclamation's manually measured stage-discharge data that better fits historical groundwater level rise and reduces the conservatism from the model results.

	Tuble 1. Treated increases in Groundwater Deves for Key with				
		D 00	~	Current Depth	
		Buffer	Screen	Week of April	Anticipated
		Zone	Depth	11 ^m	Depth
Well_ID	Site	(ft bgs)	(ft bgs)	(ft bgs) ¹	(ft)
FA-9	Reach 2A – Transect 12 – Left	4-6	12-32	7.76	7.3
	Reach 2A – Transect 12 –				
MW-47	Right	6-8	20-40	7.30	6.7
	Reach 2A – Transect 13 –				
MA-4	Right	6-8	15-25	10.85	10.1
MW-	Reach 2A – Transect 13 –				
49B	Left	4-6	10-20	4.30	3.6
	Reach 2B – San Mateo Ave. –				
MW-54B	Right	TBD	TBD	11.35	11.1
MW-	Reach 2B – San Mateo Ave. –				
55B	Left	6-8	10-15	5.82	4.9
$R2B-1^2$	Reach 2B – Right	4-6	8-11	4.61	4.9
R2B-2 ²	Reach 2B – Right	4-6	17-20	11.87	12.0
R3-1	Reach 3 – Right	4-6	9-24	7.68	6.9
R3-6	Reach 3 – Right	4-6	17-20	7.27	6.6
R3-7	Reach 3 – Right	3-5	17-20	5.72	4.9
	Reach 4A – Highway 152 –				
MW-84	Right	4-6	32-52	28.45	29.45
	Reach 4A – Highway 152 –				
MW-87B	Left	4-6	TBD	Dry (>14)	Dry

Table 1: Predicted	Increases in	Groundwater	Levels for	Key Wells
				·

¹Wells in Reaches 2A were measured on Tuesday, April 13th; MW-54B and MW-56B were measured on Wednesday, April 14th; R2B-1, R2B-2, and wells in Reaches 3 and 4A were measured on Thursday, April 15th.

 2 R2B-1 and R2B-2 are both currently higher than their predicted level for the 1500 cfs release from Friant. However, they are more dependent on Mendota Pool stage then San Joaquin River flows. (See Figure 1)







Figure 2 Comparison of Monitoring Well R2B-1 and Mendota Pool Stage

Reach	Well ID	Latitude	Longitude	Site	River Mile
3	MW-10-74	36.93065	-120.465311	Oxalis Ave	187.0
3	MW-10-75	36.929842	-120.469589	Oxalis Ave	187.0
3	MW-10-76	36.927592	-120.485836	Oxalis Ave	187.0
4A	MW-10-91	37.10640300	-120.58951900	San Juan Ranch	168.9
4A	MW-10-92	37.10459700	-120.59168600	San Juan Ranch	168.9
4A	MW-10-93	37.10241900	-120.59401400	San Juan Ranch	168.9

Table 3: Recently Installed Monitoring Well Groundwater Measurements

Well ID	Date	Depth (ft bgs)	Flow (cfs) 1	Date	Depth (ft bgs)	Flow (cfs)
						1
MW-10-74	3/26/2010	12.7	740	4/14/2010	11.65	1020
MW-10-75	3/26/2010	10.53	740	4/14/2010	8.92	1020
MW-10-76	3/26/2010	7.79	740	4/14/2010	8.02	1020
MW-10-91				4/14/2010	4.44	
MW-10-92				4/14/2010	6.14	
MW-10-93				4/14/2010	6.63	

¹ Flow in the river for River Mile 187.0 is estimated as the same as measured at the Mendota gage one day earlier, located approximately 20 miles upstream. Flow for River Mile 168.9 will be estimated as the flow at the Washington Road gage when a rating curve is developed at that location.



April 20, 2010

Conditions have changed as follows:

Release from Friant Dam is currently limited to 1100 cfs due to exchangeable deliveries and water quality issues at Mendota Pool. Current operations criteria include:

1. Friant Dam releases should be reduced by anticipated Cottonwood and Little Dry Creek inflows so as not to exceed 1300 cfs at the Chowchilla Bifurcation Structure.

2. Sack Dam releases should be maintained at 700 cfs due to potential Reach 4 seepage impacts.

3. Mendota Dam can release water to meet the 700 cfs flow target at Sack Dam and limit releases for the SJRRP such that the combined releases for Interim Flows and Arroyo Canal deliveries do not exceed 1300 cfs.

Based on the available information below, no seepage problems are anticipated within these operating criteria and Reclamation will continue with the Interim Flow releases as scheduled.

As of April 20, 2010:

1. Flows rates from provisional real-time data are below known conveyance thresholds (8,000 cfs in Reach 2A, 1,300 cfs in Reach 2B, and 1,300 cfs in Reach 3).

2. Mendota Pool operations calls did not identify any issues.

3. The seepage hotline received seven calls or emails: on March 4th regarding R2B-1, on March 11th regarding an airstrip and pomegranate orchard near river mile 238.5, on March 15th regarding Fort Washington Beach campground, on March 26th regarding CCID well 144, on April 3th regarding drains in Nickel's property in Reach 4B, on April 9th again regarding drains in Nickel's property in Reach 4B, and on April 19th regarding a ponded water on a trail at Lost Lake County Park. All call evaluations determined planned releases could continue with the current restrictions in flows over Sack Dam.

4. Real-time provisional groundwater data does not show groundwater depths crossing identified thresholds.

5. Manually monitored groundwater wells do not show unaddressed groundwater depths crossing identified thresholds. CCID maintained shallow groundwater observation wells show high groundwater depths as reported below.

6. Measured losses in Reach 2A from operations estimates show approximately 240 cfs. Changes in flows below Sack Dam appear to be stabilizing based on CDEC stage telemetry.

April 21, 2010

Conditions are the same as April 20, 2010.

April 22, 2010

Conditions are the same as April 21, 2010 with the exception of:

Additional operational criteria:

4. SLDMWA may meet Sack Dam flow targets through the Firebaugh Wasteway to maintain at least 400 cfs of flow in the lower Delta-Mendota Canal. Under conditions when DMC flows fall below 400 cfs, all of the pool demands may be met from SJRRP flows and DMC deliveries to the pool may be zero.

5. Reclamation may request that CCID deliver up to 200 cfs through the Outside Canal from Mendota Pool to Los Banos Creek (Reach 5) if SJRRP inflows exceed the combined demands of Mendota Pool and Sack Dam targets.

Additional hotline call:

4. The seepage hotline received eight calls or emails: on March 4th regarding R2B-1, on March 11th regarding river mile 238.5, on March 15th regarding Fort Washington Beach campground, on March 26th regarding CCID well 144, on April 3rd regarding drains in Reach 4B, on April 9th again regarding drains in Nickel's property in Reach 4B, on April 15th regarding a potential

almond orchard, and on April 19th regarding a ponded water on a trail at Lost Lake County Park. All call evaluations determined planned releases could continue with the current restrictions in flows over Sack Dam.

April 23, 2010

Conditions are the same as April 22, 2010 with the exception of:

Release from Friant Dam will be increased to 1350 cfs at 10am today due to increases in exchangeable deliveries and resolution of the water quality issues at Mendota Pool.

April 26, 2010

Release from Friant Dam was increased to 1350 cfs on Friday, April 23^{n} due to increases in exchangeable deliveries and resolution of the water quality issues at Mendota Pool.

6. Measured losses in Reach 2A from operations estimates show approximately 200 cfs. Changes in flows below Sack Dam appear to be stabilizing based on CDEC stage telemetry.

April 27, 2010

6.Measured losses in Reach 2A from operations estimates show approximately 140 cfs. Changes in flows below Sack Dam appear to be stabilizing based on CDEC stage telemetry.

April 28, 2010

Conditions are the same as April 27, 2010.

April 29, 2010

Conditions are the same as April 28, 2010.

April 30, 2010

Conditions are the same as April 29, 2010.

May 3, 2010

Conditions are the same as April 30, 2010 with the exception of:

Release from Friant Dam was increased to 1550 cfs on Saturday, May 1st due to increases in exchangeable deliveries and resolution of the water quality issues at Mendota Pool.

3. The seepage hotline received nine calls or emails: on March 4th regarding R2B-1, on March 11th regarding river mile 238.5, on March 15th regarding Fort Washington Beach campground, on March 26th regarding CCID well 144, on April 3rd regarding drains in Reach 4B, on April 9th again regarding

drains in Nickel's property in Reach 4B, on April 15th regarding a potential almond orchard, on April 19th regarding a ponded water on a trail at Lost Lake County Park, and on April 28th regarding ponded areas requiring mosquito treatment. All call evaluations determined planned releases could continue with the current restrictions in flows over Sack Dam.

May 4, 2010

Conditions are the same as May 3, 2010 with the exception of:

3. The seepage hotline received ten calls or emails: on March 4th regarding R2B-1, on March 11th regarding river mile 238.5, on March 15th regarding Fort Washington Beach campground, on March 26th regarding CCID well 144, on April 3rd regarding drains in Reach 4B, on April 9th again regarding drains in Nickel's property in Reach 4B, on April 15th regarding a potential almond orchard, on April 19th regarding a ponded water on a trail at Lost Lake County Park, on April 28th regarding ponded areas requiring mosquito treatment, and on May 3rd regarding land near well R3-7. All call evaluations determined planned releases could continue with the current restrictions in flows over Sack Dam, and an evaluation of the May 3rd call is currently in progress.

6. Measured losses in Reach 2A from operations estimates show approximately 160 cfs.

May 5, 2010

Conditions are the same as May 4, 2010.

<u>May 6, 2010</u>

Conditions are the same as May 5, 2010 with the exception of:

11. The seepage hotline received eleven calls or emails: on March 4th regarding R2B-1, on March 11th regarding river mile 238.5, on March 15th regarding Fort Washington Beach campground, on March 26th regarding CCID well 144, on April 3rd regarding drains in Reach 4B, on April 9th again regarding drains in Nickel's property in Reach 4B, on April 15th regarding a potential almond orchard, on April 19th regarding a ponded water on a trail at Lost Lake County Park, on April 28th regarding ponded areas requiring mosquito treatment, on May 3rd regarding well R3-7, and on May 5th regarding waterlogged property near Sand Slough. The site evaluation in Sand Slough is currently underway, and all other call evaluations determined planned releases could continue with the current restrictions in flows over Sack Dam.

<u>May 7, 2010</u>

Conditions are the same as May 6, 2010.

<u>May 10, 2010</u>

Conditions are the same as May 7, 2010 with the exception of:

The flow target at Sack Dam was decreased to 500 cfs on Sunday, May 9^{th} in order to evaluate groundwater response. The flow target at Sack Dam will decrease to 300 cfs today, Monday, May 10^{th} .

<u>May 11, 2010</u>

Conditions are the same as May 10, 2010 with the exception of:

6.Measured losses in Reach 2A from operations estimates are approximately 120 cfs.

May 12, 2010

Conditions are the same as May 11, 2010.

May 13, 2010

Conditions are the same as May 12, 2010.

<u>May 14, 2010</u>

Conditions are the same as May 13, 2010.

4.Real-time provisional groundwater data does not show groundwater depths crossing identified thresholds, except for Monitoring Well 75 (CDEC Code W75) which is currently offline. A new monitoring well (CDEC Code W89) is now online.

May 17, 2010

Conditions are the same as May 14, 2010 with the exception of:

6.Measured losses in Reach 2A from operations estimates are approximately 150 cfs.

<u>May 18, 2010</u>

Conditions are the same as May 17, 2010 with the exception of:

4.Real-time provisional groundwater data does not show groundwater depths crossing identified thresholds, except for Monitoring Well 75 (CDEC Code W75) which is currently offline.

May 19, 2010

Conditions are the same as May 18, 2010 with the exception of:

3. The seepage hotline received twelve calls or emails: on March 4th regarding R2B-1, on March 11th regarding river mile 238.5, on March 15th regarding Fort Washington Beach campground, on March 26th regarding CCID well 144, on April 3th regarding drains in Reach 4B, on April 9th again regarding drains in Nickel's property in Reach 4B, on April 15th regarding a potential almond orchard, on April 19th regarding a ponded water on a trail at Lost Lake County Park, on April 28th regarding ponded areas requiring mosquito treatment, on May 3th regarding well R3-7, on May 5th regarding property near Sand Slough, and on May 17th again regarding well R3-7. All call evaluations determined planned releases could continue.

May 20, 2010

Conditions are the same as May 19, 2010.

May 21, 2010

Conditions are the same as May 20, 2010.

May 24, 2010

Conditions are the same as May 21, 2010.

May 25, 2010

Conditions are the same as May 24, 2010 with the exception of:

The flow target at Sack Dam was increased to 700 cfs on Tuesday, May 25th.

May 26, 2010

Conditions are the same as May 25, 2010.

May 27, 2010

Conditions are the same as May 26, 2010.

May 28, 2010

Conditions are the same as May 27, 2010.

June 1, 2010

Conditions are the same as May 28, 2010 with the exception of:

The release from Friant Dam was decreased to 800 cfs on Friday, May 28^{h} . The flow target at Gravelly Ford is 610 cfs.

June 2, 2010

Conditions are the same as June 1, 2010 with the exception of:

6.Measured losses in Reach 2A from operations estimates have not stabilized.

June 3, 2010

Conditions are the same as June 2, 2010.

June 4, 2010

Conditions are the same as June 3, 2010.

June 7, 2010

Conditions are the same as June 4, 2010.

June 8, 2010

Conditions are the same as June 7, 2010 with the exception of:

The release from Friant Dam was decreased to 350 cfs on Tuesday, June 8th.

June 9, 2010

Conditions are the same as June 8, 2010 with the exception of:

6.Losses in Reach 2A from operations estimates are 90 cfs.

June 10, 2010

Conditions are the same as June 9, 2010.

June 11, 2010

Conditions are the same as June 10, 2010.