

MEMORANDUM

September 16, 2020

TO: Reclamation District No. 2028

FROM: Nathan Hershey

SUBJECT: September 2020 Engineer's Report

Described below are the engineering items to be discussed at your September 16, 2020 meeting.

Subventions 2019-20 – The District submitted an application for participation in the Program in the amount of \$615,000. DWR has lowered the Program funding amount to \$10 million for FY 2019-20. We are working on compiling the District's claim. Final claims are due November 1.

Subventions 2020-21 – The District submitted an application for participation in the Program in the amount of \$615,000. \$12 million has been approved for Program funding for FY 2020-21.

Annual Maintenance – Attached are the current maintenance items we are tracking.

Special Projects – The enhancement component of the Old River multi-benefit levee rehabilitation project is in-progress. Maintenance activities will be on-going to promote plant health and longevity.

We received a fully executed funding agreement for the design portion of the Directed Action project to rehabilitate the north and south levees. We have requested an advance of funds from DWR. Work is mostly on hold until we receive the advance of funds.

Five Year Plan – Work on the Five-Year Plan is currently in progress. A draft of the plan has been distributed via email and we have incorporated many of the comments received to date. We have also sent a draft to DWR staff for review and comment. The Plan is scheduled to be complete by the end of 2020.

SB 88 – Work under Phase 3 of the measurement experiment (Feb 2020 through Feb 2021) is underway, as outlined in the approved Request for Additional Time. Phase 3 efforts primarily involve installing 8 additional flange magnetic meters on the water side of the highest use siphons, with at least one flow meter on each island. MWD has obtained funding approvals for Phase 3, however is currently investigating flow meter issues prior to approving the new equipment quotes and setting up a bid process for installation. After the invoices are submitted, there is up to a 6-week lead time for new equipment to be delivered. MBK conducted site visits to both Bacon and Bouldin Islands in July to check existing meters and conduct portable meter tests on running siphons. Observations at Bouldin Island Siphon No. 24 showed issues with the McCrometer flange magnetic meter (Ultra Mag), which was not identifying flow through the pipe at the time of the visit, despite the siphon running and obtaining portable meter flow measurements near the flange magnetic meter location. This issue was unable to be resolved in the field. We have confirmed that the pipe is full at the meter location by using the FLEXIM portable meters upstream and downstream of the flow meter. Additional suggestions from McCrometer did not produce any resolution to the issue. In August, the unit was sent to McCrometer. The technical support staff identified that water intrusion into the unit caused an issue with the internal circuit boards and this condition is not covered under warranty. Due to this issue,

the purchase of new equipment (which includes 4 Ultra Mags) is temporarily on hold until methods to prevent this issue from occurring with other Ultra Mag meters in the future is determined.

The next Delta Measurement Experiment Consortium meeting is scheduled for Thursday, October 15. MBK and MWD will continue to participate in the Consortium and provide feedback on the draft work plan and future development of the ACP.

Reclamation District No. 2028 Bacon Island

Issue Tracking Summary

9/11/2020

IssueID	Priority	Report Date	Reporter	Location	Issue Type	Description	Action	Field Notes
6	Medium	10/21/2016	Ralph Heringer	Station 275 @ Pump Station	Broken Equipment	Trash racks in need of maintenance/repair	Investigate	TBD
8	Low	11/2/2016	Dave Forkel	Station 668-702	Encroachment	Eucalyptus trees present a hazard	Investigate	Review, explore removal
36	Low	2/24/2017	Nate Hershey	Station 712	Seepage	Seepage exiting at toe of slope near retaining wall structure.	Monitor	12/4/17 - Area dried up after winter; continue to monitor
43	Medium	4/4/2017	Brian Janowiak	Station 92-93	Seepage	Seepage existing at toe of slope, running across county road		
48	Low	6/14/2017	Dave Forkel	Station 190+00	Vegetation control	CDFW mitigation site shows evidence of arundo mowing.	Investigate	Discuss mitigation requirements.
73	Medium	10/21/2016	Ralph Heringer	Station 465 @ Pump Station	Broken Equipment	Trash racks in need of maintenance/repair	Investigate	TBD
84	Medium	4/4/2019	RussRyan	95+00	Boil	Lower tide now and I think the roadway pothole (boil ??) needs repair at some point. I know it's a county road. We'll have to figure since once the (what I'm assuming) is a leak of repaired then the road will need to also be repaired.	Repair	
92	High	9/19/2019	AndyReece	Sta 688+00 - 689+00	Crack	deep cracks at LS hinge and LS slope	Investigate	5 ft plus feet deep approx 3 inches wide along LS hinge and landside slope. In summer 2019, cracking area was excavated and re-compacted, AB was placed on the crown. On the waterside of the cracking site a beaver den was collapsed and back filled with AB in summer 2019.

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9/11/2020

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92.1	High	6/29/2020	Michael Nishimura	Sta 688+00 - 689+00	Crack	The cracking site, repaired by Dino and Sons in Summer 2019, has reopened and is approximately 100 feet in length. The number of cracks and the depth of cracks are unknown at this time.	Repair	
92.2	High	8/7/2020	Nate Hershey	Sta 688+00 - 689+01	Crack	Repaired by Dino and Sons again this week. Continue to monitor the area.	Monitor	
95	Medium	12/12/2019	AndyReece	siphon north of Mel's	RodentActivity	possible beaver den under tree south of siphon	Investigate	