MEMORANDUM

August 12, 2020

TO: Reclamation District No. 2028

FROM: Nathan Hershey, Brian Janowiak

SUBJECT: August 2020 Engineer's Report

Described below are the engineering items to be discussed at your August 12, 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. The levees were moved in July in designated areas. Updated drone imagery of the water side slopes was acquired on 8/6 and is currently being processed. We will review the footage for potential sites requiring maintenance.

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 must 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 and is currently reviewing quotes for the new equipment 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 of the flow meter. Additional

RD 2028
Engineer's Report
August 12, 2020
Page 2

ideas and programming ideas from McCrometer have also not produced any resolution to the issue. Remaining potential fixes include installing a grounding rod for the meter and/or performing a close inspection of the meter converter, which would need to be removed and sent to McCrometer for possible repairs/replacement. MBK is awaiting information from McCrometer about the cost and time frame to check the converter. Due to this issue, the purchase of new equipment (which includes 4 Ultra Mags) is temporarily on hold until the issue is corrected or better understood.

The Delta Measurement Experiment Consortium had a meeting on July 15, 2020, which included a presentation by the Delta Watermaster's office for a proposed work plan for the Consortium's development of a Delta-wide Alternative Compliance Plan. 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 8/7/2020

IssueID	Priority	Report Date	Reporter	Location	Issue Type	Description	Action	Field Notes
				Station 275 @		Trash racks in need of		
6	Medium	10/21/2016	Ralph Heringer	Pump Station	Broken Equipment	maintenance/repair	Investigate	TBD
						Eucalyptus trees present a		
8	Low	11/2/2016	Dave Forkel	Station 668-702	Encroachment	hazard	Investigate	Review, explore removal
						Seepage exiting at toe of		
						slope near retaining wall		12/4/17 - Area dried up after
36	Low	2/24/2017	Nate Hershey	Station 712	Seepage	structure.	Monitor	winter; continue to monitor
						Seepage existing at toe of		
						slope, running across county		
43	Medium	4/4/2017	Brian Janowiak	Station 92-93	Seepage	road		
						CDFW mitigation site shows		
48	Low	6/14/2017	Dave Forkel	Station 190+00	Vegetation control	evidence of arundo mowing.	Investigate	Discuss mitigation requirements.
				Station 465 @		Trash racks in need of		
73	Medium	10/21/2016	Ralph Heringer	Pump Station	Broken Equipment	maintenance/repair	Investigate	TBD
						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		
84	N 4 = = :=	4/4/2040	D D	05.00	D-il	repaired then the road will	Danain	
84	Medium	4/4/2019	RussRyan	95+00	Boil	need to also be repaired.	Repair	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
				Sta 688+00 -		deep cracks at LS hinge and		collapsed and back filled with AB in
92	High	9/19/2019	AndyPooce	689+00	Crack	LS slope	Invostigato	summer 2019.
92	High	9/19/2019	AndyReece	009+00	Crack	L3 Slope	Investigate	Summer 2019.

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				Sta 688+00 -		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		
92.1	High	6/29/2020	Michael Nishimura	689+00	Crack	unknown at this time.	Repair	
						Repaired by Dino and Sons		
				Sta 688+00 -		again this week. Continue to		
92.2	High	8/7/2020	Nate Hershey	689+01	Crack	monitor the area.	Monitor	
				siphon north of		possible beaver den under		
95	Medium	12/12/2019	AndyReece	Mel's	RodentActivity	tree south of siphon	Investigate	