

**MEMORANDUM**

August 12, 2020

**TO:** Reclamation District No. 756

**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 \$750,000. 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 \$1,595,000. \$12 million has been approved for Program funding for FY 2020-21.

**Annual Maintenance** – Attached are the current maintenance items we are tracking. We have developed a maintenance project to address the items recommended for repair and are coordinating with a contractor regarding schedule. Repairs should be complete within the next month.

Updated drone imagery of the water side slopes was acquired on 7/15 and is currently being processed. We will review the footage for potential sites requiring maintenance.

**Special Projects** – A letter was submitted to DWR requesting reconsideration of the decision to withdraw the funding agreement for the levee setback and habitat enhancement project on the west levee. We are awaiting a response.

We received a fully executed funding agreement for the design portion of the Directed Action project to rehabilitate the north levee. 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 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. 756 Bouldin Island

## Issue Tracking Summary

8/7/2020

IssueID	Priority	Report Date	Reporter	Location	Issue Type	Description	Action	Field Notes
23	Low	2/11/2017	JaimeBarajas	Station 859	Boil	Boil on lower levee slope/toe; running at high tide	Monitor	25 LF core trench along WS hinge to depth of 8'; no pipe or water encountered; backfilled with native material.
24	Low	2/11/2017	JaimeBarajas	Station 924+10	Boil	Boil on lower levee slope/toe; running at high tide	Monitor	40 LF core trench along WS hinge to depth of 8'; encountered water seeping from landside trench wall at 8' depth; backfilled with native and imported dry fill; Drainage ditch to be cut along Caltrans access roadway from Sta 926 to Sta 2 to relieve ponding. Work to be done by Sierra Cattle.
34	Low	2/20/2017	NateHershey	Station 813	Encroachment	Siphon may be low	Monitor	8/14/17 - Waterside top of pipe = 7.2; 100 yr. flood = 7.6; 12" siphon; pipe is low; Continue to Monitor
41	Medium	3/28/2017	RalphHeringer	Station 544-549	Crack	Cracking in LS Slope; seepage and cattails at toe	Monitor	Monitor and discuss repair; 10/23/17 Levee crown trenched; no encroachments located, Area to be graded and prepared for flood season; will proceed under Special Projects upon receipt of PFA. 12/4/17 - grading complete

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41.1		4/24/2020	NateHershey					Reviewed the site area. Area appears to be moving again - not as dramatic as in 2017, but it appears to be along the same fault lines. Seepage observed exiting the surface. Recommend performing an updated survey and developing an action plan.
53	Medium	8/11/2017	NateHershey	Station 324	Seepage	Seepage at toe of 3 to 1 slope	Monitor	Monitor
54	Medium	8/11/2017	NateHershey	Station 336	Seepage		Monitor	Monitor; The hole is shallow at about 1-2 inches deep.
63	Medium	3/23/2018	RussRyan	Station 72	Crack	Longitudinal crack on land side slope near toe of Levee. Crack runs several hundred feet parallel to Levee road. See photos.	Repair	Investigate and monitor; It's clear to me that there is differential settling after slope vegetation was cleared.
65	Medium	5/8/2018	RussRyan	Station 710	RodentActivity	Adjacent to Duck Club office on Levee slope water side. Appears to be possible Beaver Den discovery during low tide.	Repair	Min. Fill material;Need to investigate extent of hole and fill in with Levee backfill material/rock.
65.1	Medium	6/19/2018	AndrewReece	Station 712+00	RodentActivity	Possible beaver den by district office, west of tree on ws slope	Repair	Two levee penetrations, one on top of other. WS slope sloughing.
74	Low	1/5/2019	RussRyan	Land side within 150 foot Levee footprint. See attached photos. Low wet areas.	Other,Sinkhole	Bouldin Island - West stretch length adjacent to Mokelumne River. See attached photos for exact location.	Investigate	See notes above.
85	Low	4/1/2019	MichaelNishimura	79+00-80+00	Sloughing	sloughing on water side for about 100 feet, cracking at hinge	Monitor	

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86	Medium	5/7/2019	Brian Janowiak	Sta 845+00 to 846+00 between toe road and seepage ditch	Seepage	Seepage between toe road and seepage ditch appeared last week. Does not appear to be tidally influenced and a point source was not located. Additional minor wet spots observed between Sta 841+00 and 843+00. No known history of seepage at this location.	Repair	District (Dave, Russ, Ralph) to review site on 5/10. Exploratory trenching will likely be required. Perform trenching when convenient as long as site does not change or worsen.
86.1		5/10/2019						Looks like seepage is drying up.
88	Low	6/7/2019	Dave Forkel	Sta 382+00	Seepage	Seepage on side of levee.	Investigate	
93	Medium	9/26/2019	Andy Reece	693+00	Sloughing, RodentActivity	sloughing and possible rodent den	Investigate	big rock and might be eroding, possible beaver as well
94	Low	9/27/2019	Brian Janowiak	Lower toe	Other, Settlement	Area along lower toe near seepage ditch by Floeida tip appears to have settled.	Monitor	
95	Medium	3/16/2020	DaveForkel	Sta 500+00	Other	Abandoned houseboat almost completely destroyed	Monitor	Sheriff contacted
96	Medium	4/22/2020	RussRyan	Between 630 and 640	Seepage	Appears to be seepage	Investigate	
97	Medium	4/24/2020	NateHershey	Station 536+25	Erosion	Eroded waterside slope, 60LF +/-	Repair	
99	Medium	7/28/2020	RussRyan	Between Sta 20+00 and St 40+00.	Sinkhole	An 18" diameter pot hole on levee crest road closer to waterside slope.	Repair	Will need to investigate extent of below surface voids below sink.