

MEMORANDUM

September 16, 2020

TO: Reclamation District No. 756

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 \$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. Items previously recommended for repair were addressed with a maintenance project in August.

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 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. 756 Bouldin Island

Issue Tracking Summary

9/14/2020

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.
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.
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	
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	

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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	
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.