

**MEMORANDUM**

August 18, 2021

**TO:** Reclamation District No. 756

**FROM:** Nathan Hershey

**SUBJECT:** **August 2021 Engineer's Report**

Described below are the engineering items to be discussed at your August 18, 2021 meeting.

**Subventions 2019-20** – The District submitted an application for participation in the Program in the amount of \$750,000. DWR lowered the Program funding amount to \$10 million for FY 2019-20. The District submitted a claim in the amount of \$213,176.91 for the fiscal year and received reimbursement in the amount of \$135,847.

**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. We will be working on compiling the District's claim in the coming months. Final claims must be submitted by November 1.

**Subventions 2021-22** – The District submitted an application for participation in the Program in the amount of \$631,000. \$10 million has been approved for the Program for FY 2021-22.

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

**Flood Fight Supplies** – The District submitted the reimbursement package to San Joaquin County for flood fight supplies prior to the deadline. We are waiting to receive reimbursement.

**Regional Flood Fight Supply Depot** – The District has signed a MOA with Sacramento County to move forward with development of a regional flood fight supply depot. We have developed a preliminary site layout and are working on the logistics of developing the depot. We are waiting for Sac County to provide details on the funding available for the site improvements.

**Special Projects** – The funding agreement for the levee setback and habitat enhancement project on the west levee has been fully executed and work on the project may begin. We have requested an advance of funds to cover the initial design work.

The District received an advance of funds for design of the Directed Action project to rehabilitate the north levee. The design is progressing and we are nearly ready to submit the Scope of Work to DWR for approval. We are working through various design related issues and are developing the plans and specifications.

**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 the comments received to date. We have also sent a draft to DWR staff for review and comment. DWR has extended the expiration date of the funding agreements to December 31, 2021.

**SB 88** – Work under Phase 3 of the measurement experiment has been completed. Phase 3 efforts primarily involved installing 8 additional flange magnetic meters on the water side of the highest use siphons, with at least one flow meter on each island. The installation of telemetry equipment at each of these sites is also complete. MBK has visited the sites and certified that the installed flow meters have all been installed to manufacturer's specifications. MBK is still in the process of conducting comparison tests with the portable flow meter at these new sites.

During these site visits it was discovered that the equipment at Bouldin Island Siphon No. 27 had been stolen. In addition, MBK found that the flange bolts had to be tightened at two sites to prevent the siphon from losing prime. Lastly, the newly installed flow meter at Bacon Island Siphon No. 24 was generating questionable flow meter readings that MBK was unable to resolve during a site visit on 8/6/21. To complete the troubleshooting, the gate valve at the discharge of the siphon needs to be fixed to prevent leaking when fully shut to allow MBK to reprogram the flow meter.

MWD and the RDs are in compliance for calendar year 2021 under an approved extension of time. Current direction by MWD was to proceed with strict compliance. Therefore, MBK has provided cost estimates for flange magnetic meters installed on the water side of all active siphons and developed a draft plan for compliance, which was provided to staff and legal counsel on June 8th. The draft plan for compliance will be refined with specific plans for individual siphons as operational details and legal direction are confirmed.

Development of the Delta-wide ACP by the Delta Measurement Experiment Consortium to utilize Open ET for measuring and reporting diversions continues. RD staff are currently in the process of creating place of use polygons for each of the islands. MBK and MWD continue to participate in the Consortium. The next Consortium meeting has not yet been scheduled.

# Reclamation District No. 756 Bouldin Island

## Issue Tracking Summary

8/13/2021

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.
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	
96	Medium	4/22/2020	RussRyan	Between 630 and 640	Seepage	Appears to be seepage	Investigate	
104	Medium	11/19/2020	DaveForkel	Sta 426+00	Sloughing	Waterside crack about 100 ft total, spread over 3-4 sites	Repair	
106	Medium	12/17/2020	RussRyan	Bouldin Island (see photo for location)	Crack	Levee crest road crack (towards water side). Crack length is about 7 step paces (Russ Ryan) and depth is unknown.	Monitor	
107	Medium	12/17/2020	RussRyan	See photos	Seepage	Just inside levee footprint on land side of toe drain there water ponding. Was there prior to any rain this season during dry period.	Monitor	See photos taken on site.

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108	Medium	7/8/2021	RussRyan	Station 90	Crack	Cracking observed on landside slope. Unclear if this is a result of the earthquake event.	Monitor	
109	Medium	7/8/2021	RussRyan	Station 226	Sloughing	Potential landside settlement on toe berm. Unclear if this is earthquake related.	Monitor	
110	Medium	7/8/2021	RussRyan	Station 503	Sloughing	Landside disturbance. Unclear if earthquake related or due to sheep activity.	Monitor	