

**MEMORANDUM**

November 18, 2020

**TO:** Reclamation District No. 756

**FROM:** Nathan Hershey

**SUBJECT: November 2020 Engineer's Report**

Described below are the engineering items to be discussed at your November 18, 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. The District submitted a final claim in the amount of \$213,176.91.

**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.

**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. DWR has extended the expiration date of the funding agreements to December 31, 2021.

**Delta Stewardship Council** – In October, the Delta Stewardship Council (DSC) staff provided interested stakeholders an overview of the risk analysis component of the Delta Levees Investment Strategy (DLIS). Updates to the DLIS risk analysis include the incorporation of new data (2017 DWR LiDAR, updated flood hydrology and updated water surface elevations). The DSC's goal is to improve how the fragility curves represent Delta levee conditions and failure modes. DSC staff provided a dashboard tool to review specific island/tract data and has requested feedback by the end of November. MBK is in the process of reviewing the materials provided by the DSC and intends to comment on behalf of our clients.

**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 obtained updated equipment quotes on October 28th and is setting up a bid process for equipment installation. After the invoices are submitted, there is up to a 6-week lead time for some of the

new equipment to be delivered. MWD is confirming the delivery location for equipment storage, prior to installation. As a result of the issues with the Ultra Mag meter at Bouldin Island Siphon No. 24, the updated equipment quotes include additional enclosures for the converter units at each Ultra Mag meter site, which is anticipated to prevent moisture intrusion into the units. The converter for Bouldin Island Siphon No. 24 has been replaced, and MBK plans to reinstall it with a new enclosure this month.

MBK prepared a document to describe a plan and estimated costs for long term, strict compliance with the Measurement Requirements on the MWD islands. The total estimated cost for initial compliance is \$1,039,800, with estimated annual costs of \$195,540. This document was provided to MWD in October. Following discussions related to strict compliance, MBK prepared a list of other options for compliance, including an Alternative Compliance Plan (ACP). Current direction by MWD is to proceed with a combination of strict compliance and developing a MWD ACP. Regardless of the approach for compliance, MWD will need to submit a Request for Additional Time, prior to the expiration of the current one on December 31, 2020 for another year of time.

The Delta Measurement Experiment Consortium meeting occurred on October 15, 2020, which included a presentation by the Delta Watermaster on the development of the Delta-wide ACP, to utilize Open ET for measuring and reporting diversions. Further development of this ACP will be led by the Consortium. MBK and MWD will continue to participate in the Consortium and provide feedback on the future development of this ACP as needed.

**Reclamation District No. 756 Bouldin Island**

**Issue Tracking Summary**

11/15/2020

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	

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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	
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.