

MEMORANDUM

October 16, 2019

TO: Reclamation District No. 756

FROM: Nathan Hershey

SUBJECT: **October 2019 Engineer's Report**

Described below are the engineering items to be discussed at your October 16, 2019 meeting.

Subventions 2018-19 – The District submitted an application for participation in the Program in the amount of \$845,000. \$12 million has been approved for Program funding for FY 2018-19, consistent with recent previous years. We are working on compiling the District's final claim. The deadline for submittal is November 1.

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.

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

Special Projects – The District submitted a full application for a project under DWR's 2016 Projects Solicitation Package (PSP) for Multi-Benefit Projects. The full application proposed a project between Stations 500 and 540 that would create a habitat bench and set the levee back, while also relocating the District's Camp 5 pump station, moving it further landward. Subsequently, we requested an expansion of the project area to include rehabilitation from Stations 540-550. We have received a funding agreement for the work, and DWR has responded to our inquiry about eligibility of relocating the pump station. Removal of the existing pump station is an eligible cost (95% State share), and the new pump station will be eligible for 50% State share.

We submitted a Full Application for a Directed Action project to rehabilitate the north levee in January 2019. DWR is currently reviewing the proposal, and we have submitted a follow-up letter inquiring about the status. We have also been verbally communicating with DWR about the project.

Five Year Plan – We have received a fully executed funding agreement for the Five-Year Plan (FYP). We have started work on the Plan update and have received an advance of funds in the amount of \$26,250.00.

SB 88 – Work under Phase 2 of the measurement experiment (work plan for 2019) is progressing and coordination with the Delta Measurement Experimentation Consortium continues. No additional test sites were added during September but one more additional test site is still planned for installation at Bouldin Island Siphon No. 27. After a site visit to troubleshoot flow meters, flow measurement equipment at all 11 tests sites is currently operational. Coordination with contractors is ongoing for installation and maintenance of water level sensing equipment at 4 of the test sites.

2019 siphon logs have been received for the months of July and August, collection of September logs is in progress. Portable meter testing was conducted in early September, with tests performed on several new

siphons. MBK is coordinating with Dave Forkel to capture the fall/winter flooding with portable meter testing on siphons.

Site visits were conducted on Bacon Island on 9/19/19, 9/20/19, and 10/4/19 to survey siphons, conduct portable meter testing, and troubleshoot/program equipment. Site visits were conducted on Bouldin Island on 9/24/19, 9/26/19 and 10/11/19 to survey siphons, conduct portable meter testing, and download data. Survey data was collected on four site visits that include pipe slopes and landside reference elevations. Common issues still being experienced include corrosion, durability of equipment, and communication related issues.

Reclamation District No. 756 Bouldin Island

Issue Tracking Summary

10/11/2019

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
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.

Reclamation District No. 756 Bouldin Island

Issue Tracking Summary

10/11/2019

IssueID	Priority	Report Date	Reporter	Location	Issue Type	Description	Action	Field Notes
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	
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.

Reclamation District No. 756 Bouldin Island

Issue Tracking Summary

10/11/2019

IssueID	Priority	Report Date	Reporter	Location	Issue Type	Description	Action	Field Notes
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	
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