

MEMORANDUM

December 15, 2021

TO: Reclamation District No. 2028

FROM: Nathan Hershey

SUBJECT: December 2021 Engineer's Report

Described below are the engineering items to be discussed at your December 15, 2021 meeting.

Subventions 2020-21 – The District submitted an application for participation in the Program in the amount of \$615,000. \$12 million has been approved for Program funding for FY 2020-21. A final claim in the amount of \$301,108.19 was submitted.

Subventions 2021-22 – The District submitted an application for participation in the Program in the amount of \$541,000. \$10 million has been approved for the Program for FY 2021-22.

Annual Maintenance – Attached are the current maintenance items we are tracking. We are also due to perform a survey of the levees to check elevation and width parameters, typically done every 5 years. We recommend performing the survey in 2022.

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.

Special Projects – The enhancement component of the Old River multi-benefit levee rehabilitation project (BN-15-1-SP) is in-progress. Maintenance activities will be on-going to promote plant health and longevity.

The District received an advance of funds for design of the Directed Action project to rehabilitate the north and south levees (BN-19-1-SP). We have submitted the draft Scope of Work to DWR for approval which includes draft environmental documents and 90% plans. The next step is to circulate the environmental documents for public review and comment. Our recommendation is to circulate the public draft and post the document to the State clearinghouse.

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, 2022.

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. During one of these site visits the meter at Bacon Island Siphon 24 was reprogrammed after it was discovered the readings were inaccurate. MBK also noticed that the meters on

Bouldin Island Siphons 39 and 40 appeared to be experiencing electrical interference. To address this issue, grounding rods were installed for each meter.

Work under Phase 4 of the measurement experiment is expected to begin in the near future. MWD has authorized the purchase of 25 flow meters along with telemetry units to be installed on all four islands. MWD has also begun the process of selecting a contractor to perform the installations of this equipment. The installations are estimated to be completed before the end of 2022. MBK has conducted visits to the proposed sites to identify work that needs to be completed prior to installing the flow meters. MBK will work with MWD and the selected contractor to complete these preparations.

After reviewing the notes and photos from MBK's visits to the Phase 4 sites, four siphons were identified as potentially having asbestos or a tar coating on the pipe exterior. These hazardous materials could harm the contractor and the environment if not disposed of properly. MBK and MWD are planning to work with an environmental consultant to determine if any hazardous materials are present by testing samples from each of the four sites. MWD has already reached out to an environmental consultant (Bovee Environmental Management) that is competent in this type of testing. If the tests from the environmental consultant show hazardous materials are present, MWD will update the scope of work for Phase 4 and work with the environmental consultant to properly dispose of these materials.

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 with telemetry equipment installed on the water side of all active siphons. Since strict compliance will not be obtained by the end of the year, MBK is coordinating with the Delta Watermaster to develop a Plan for Compliance. The current direction from the Delta Watermaster is to submit Requests for Additional Time to cover the period needed to install all the flow meters with the Plan for Compliance attached. The Plan for Compliance provides details regarding the methods to estimate diversions on siphons without flow meters and provides a measurement equipment installation schedule. MWD currently anticipates that installing all the flow meters may take up to five years.

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.

Reclamation District No. 2028 Bacon Island

Issue Tracking Summary

12/10/2021

IssueID	Priority	Report Date	Reporter	Location	Issue Type	Description	Action	Field Notes
6	Medium	10/21/2016	Ralph Heringer	Station 275 @ Pump Station	Broken Equipment	Trash racks in need of maintenance/repair	Investigate	TBD
36	Low	2/24/2017	Nate Hershey	Station 712	Seepage	Seepage exiting at toe of slope near retaining wall structure.	Monitor	12/4/17 - Area dried up after winter; continue to monitor
43	Medium	4/4/2017	Brian Janowiak	Station 92-93	Seepage	Seepage existing at toe of slope, running across county road		
73	Medium	10/21/2016	Ralph Heringer	Station 465 @ Pump Station	Broken Equipment	Trash racks in need of maintenance/repair	Investigate	TBD
84	Medium	4/4/2019	RussRyan	95+00	Boil	Lower tide now and I think the roadway pothole (boil ??) needs repair at some point. I know it's a county road. We'll have to figure since once the (what I'm assuming) is a leak of repaired then the road will need to also be repaired.	Repair	
95	Medium	12/12/2019	AndyReece	siphon north of Mel's	RodentActivity	possible beaver den under tree south of siphon	Investigate	
100	Medium	9/17/2020	NateHershey	Station 102	Sloughing	Waterside slope is sloughing. Starting to encroach into the county road.	Repair	
101	Medium	9/17/2020	NateHershey	Station 704	Erosion	Field verified erosion site detected by drone footage. Site is approximately 100 feet long, adjacent to willows and vegetation is covering steep slopes.	Repair	

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101.1	Medium	1/8/2021	NateHershey	Station 704	Erosion	Site is in future Special Projects work area. Recommend monitoring and repairing during levee rehabilitation project.		
102	Medium	5/5/2021	DaveForkel	Sta 107+19	Erosion	Erosion at toe of levee at siphon discharge.	Repair	Dino and Son to fill erosion site
103	Medium	5/5/2021	DaveForkel	Sta 175+15	Erosion	Erosion at toe of levee at siphon discharge.	Repair	Dino and Son to fill erosion site
104	Low	5/5/2021	DaveForkel	Junior's House	Sloughing	Rock placed at waterside of new fill settling.	Monitor	
105	Medium	8/20/2021	NateHershey	Station 694	Sinkhole	Three voids discovered near utilities and in the existing toe berm. Recommend collapsing and compacting when feasible.	Repair	
106	Medium	11/4/2021	DaveForkel	Sta 170+00	Seepage	Seepage at toe of levee.	Monitor	