

MEMORANDUM

August 17, 2022

TO: Reclamation District No. 2028

FROM: Nathan Hershey

SUBJECT: **August 2022 Engineer's Report**

Described below are the engineering items to be discussed at your August 17, 2022 meeting.

Subventions 2021-22 – The District submitted an application for participation in the Program in the amount of \$541,000. An additional \$2 million was recently approved by the Central Valley Flood Protection Board, for a total of \$12 million approved for the Program for FY 2021-22.

Subventions 2022-23 – The District submitted an application for participation in the Program in the amount of \$541,000. \$12 million was recently approved by the Central Valley Flood Protection Board for the Program for FY 2022-23.

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

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 Delta Plan consistency certification public review period has expired and there were no appeals. A revised Scope of Work has been submitted to DWR for approval. Upon approval, the project will be put out for bid. Advance funds for construction were received on August 8 in the amount of \$4,660,000.00.

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. At DWR's request, we submitted the anticipated total cost of improvements for their planning purposes.

SB 88 – Work under Phase 4 of the measurement experiment is underway. The equipment was inspected by MWD, MBK, and Gornto Ditching on June 7th. Currently nine meters have been installed and will be certified by MBK Engineers later this month. Progress is being made on the remaining flow meter installations and they are expected to be complete before the end of 2022.

During the installation of these meters, Gornto Ditching discovered that a proper air-tight seal could not be made while using grounding rings on the 18-inch diameter siphons without using additional gaskets. Because of this, there would not be enough gaskets left in equipment ordered from Technoflo to complete all the Phase 4 flow meter installations. MBK Engineers contacted Technoflo about this issue and has received 8 replacement gaskets of a different material to try on the remaining sites. In addition, Gornto Ditching has been instructed to avoid using the grounding rings since electrical interference is not expected to be a

significant issue at most sites. MBK recommends installing a grounding rod at any sites where electrical interference is observed to be an issue.

MBK and Gornto Ditching have also discussed additional complications regarding a Phase 4 site on Webb Tract with a plastic pipe (Siphon 8, Sta. 390+31). According to Gornto Ditching, different types of plastic pipe require different equipment to properly weld the flanges onto the pipe and install the flow meter. Additional efforts will be required at this site in order to determine the type of plastic used and purchase/rent the necessary the equipment.

After the completion of Phase 4, there will be approximately 50 siphons without a flow meter. MBK and MWD are planning to work with Bovee Environmental Management to test any of these sites that are suspected to contain asbestos or a tar coating on the pipe exterior. Any sites that test positive for these hazardous materials will be abated by W.C. Maloney during 2022-2023 prior to any flow meter installation.

MWD and the RDs are in compliance for calendar year 2022 under an approved extension of time. The extension was approved by the Delta Watermaster on January 13th, 2022 and will expire on January 1st, 2024. The extension of time included a Plan for Compliance which 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 will take five years. Therefore, MBK has provided cost estimates for flange magnetic meters with telemetry equipment installed on the water side of all active siphons.

Development of the Delta-wide ACP by the Delta Measurement Experiment Consortium to utilize Open ET for measuring and reporting diversions continues. Place of use polygons for each island have been completed and will be used in conjunction with Open ET to report on diversions. MBK and MWD continue to participate in the Consortium.

Reclamation District No. 2028 Bacon Island

Issue Tracking Summary

8/12/2022

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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8/12/2022

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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	