MBK ENGINEERS

Water Resources • Flood Control • Water Rights

MEMORANDUM

September 18, 2024

TO: Reclamation District No. 2028

FROM: Nathan Hershey, Brian Janowiak

SUBJECT: **September 2024 Engineer's Report**

Described below are the engineering items to be discussed at your September 18, 2024 meeting.

Subventions 2023-24 – The District submitted an application for participation in the Program in the amount of $541,000. A total of $14 million has been approved by the Central Valley Flood Protection Board for the Program for FY 2023-24.

Subventions 2024-25 – The District submitted an application for participation in the Program in the amount of $541,000. A total of $14 million has been approved by the Central Valley Flood Protection Board for the Program for FY 2024-25.

Future Subventions Funding – DWR has indicated that funding has not been secured yet for fiscal years 2025-26 and beyond. Delta advocates, including the California Central Valley Flood Control Association and others, are considering ways to increase awareness and gain support for securing funding for this highly successful and vital program. We have prepared a draft funding request letter for the RD to consider and possibly submit to state legislators.

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

Emergency Response Grant (Round 3) – San Joaquin County transmitted a memo to reclamation districts regarding grant funds that are available to update the District's emergency operations plan and flood contingency map. Up to $15,000 per district is available. Our recommendation is to participate in the process and use this funding to update the documents.

FEMA – The District's claim is currently under review at FEMA. MBK will continue to check in with FEMA personnel regarding status updates. The total claim amount is $52,398.36.

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.

Teichert has excavated all fill material required from the borrow pits. The remaining fill required for the levee crown will be generated from trimming the landside slope and will be supplemented from the small stockpiles Teichert has created. Current work includes exploratory excavation along the south levee and riprap placement along the WS slope of the north levee, west of the bridge. Coordination with San Joaquin County regarding county road impacts is ongoing. All siphon work along the north levee is complete. Construction is scheduled to be complete by the end of the year.

SB 88 – All Phase 4 meters have been installed and certified by MBK Engineers. Data is currently being collected at 37 sites across all four islands. MBK will continue to monitor all sites monthly during the winter season and weekly during the irrigation season via Wildeye's website. All Wildeye units are currently working with the exception of Bouldin Island Siphon No. 30, which was damaged by driftwood (equipment will be reinstalled when Phase 5 installations occur at nearby siphons). All meters are currently working, with the exception of (1) Bouldin Island Siphon No. 2, (2) Bouldin Island Siphon No. 26, and (3) Bacon Island Siphon No. 25. See previous RD update for details.

All Phase 5 flow meters were delivered and inventoried January 4th on Bacon Island. MWD has posted a bid package and will be requesting bids until September 19th for the installation of the Phase 5 meters. The Phase 5 telemetry equipment has been purchased, and will be delivered at the time of installation, following flow meter installations at each site. MBK is working to acquire a 14-inch conversion kit for Bouldin Island Siphon No. 26 and expects to have the equipment ready during the installation period.

MBK plans to attend and present on the behalf of MWD during the September 24th Delta Consortium meeting. MBK has also provided MWD staff with a draft summary technical report on the 2023 OpenET and measured diversion comparison for review and comments. MWD and MBK met on September 4th to discuss Water Year 2024 annual reporting requirements and methodology. MBK will begin collecting data and preparing draft reports on October 1, 2024, for review by MWD staff in December.

RD 2028 – Bacon Island

Issue Tracking Summary
September 15, 2024

Issue ID	Priority	Report Date	Reporter	Location	Issue Type	Description	Action	Field Notes
006	Medium	October 20, 2016 5:00 PM	RalphHeringer	Station 275 @ Pump Station	Broken Equipment	Trash racks in need of maintenance/repair	Investigate	TBD
036	Low	February 23, 2017 5:00 PM	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
043	Medium	April 3, 2017 5:00 PM	Brian Janowiak	Station 92-93	Seepage	Seepage existing at toe of slope, running across county road		
073	Medium	October 20, 2016 5:00 PM	RalphHeringer	Station 465 @ Pump Station	Broken Equipment	Trash racks in need of maintenance/repair	Investigate	TBD
101	Medium	September 17, 2020 4:25 PM	Nate Hershey	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	
101.1		January 8, 2021 1:00 AM	Nate Hershey					Site is in future Special Projects work area. Recommend monitoring and repairing during levee rehabilitation project.
102	Medium	May 5, 2021 11:13 AM	Dave Forkel	Sta 107+19	Erosion	Erosion at toe of levee at siphon discharge.	Repair	Dino and Son to fill erosion site
103	Medium	May 5, 2021 11:22 AM	Dave Forkel	Sta 175+15	Erosion	Erosion at toe of levee at siphon discharge.	Repair	Dino and Son to fill erosion site
104	Low	May 5, 2021 11:23 AM	Dave Forkel	Junior's House	Sloughing	Rock placed at waterside of new fill settling.	Monitor	
106	Medium	November 4, 2021 4:43 PM	Dave Forkel	Sta 170+00	Seepage	Seepage at toe of levee.	Monitor	
107	Medium	December 15, 2022 4:44 PM	Dave Forkel	Sta 704+00	Erosion	Levee experienced minor waterside erosion during last weeks storm.	Repair	District forces to repair.
108	Medium	January 10, 2023 10:33 AM	MichaelNishimura	13+50 waterside hinge on road	Sinkhole, Other	6” diameter sink hole on ws road hinge. Probed for 5’ deep going towards the water. Identical size hole on landside road hinge just across crown, probed about 2.5’ into levee crest. The landside has multiple animal burrows 7” to 1’ diameter in size. Probed 5’ feet into levee towards levee center. Ground	Repair	

						is very soft on landside slope and steep. Approximately 1.5:1 to 2:1 slope. There is a bulge at the lower landside toe. It appears either a low spot is ponding or potential seepage is occurring on the landside toe for approximately 150’ adjacent to rodent activity and sinkholes.		
109	Medium	January 10, 2023 11:02 AM	MichaelNishimura	13+50 landside toe	Seepage	Potential sheet flow Seepage at landside toe. Adjective to levee with several large rodent holes. Approximately 150-200’ total site length.	Monitor	
111	Medium	January 10, 2023 11:42 AM	MichaelNishimura	98+90 to	Erosion, Sloughing	Sloughing of ws slope. In the adjacent areas the slope is steep as well and it starts right at the water side hinge. This sloughing is occurring in a thick patch of ws slope and is still approximately in the same condition as it’s adjacent slopes. Grading could help further damage from surface runoff.	Monitor	
113	Medium	January 10, 2023 12:10 PM	MichaelNishimura	203+50 to 204+25 waterside slope	Erosion, Sloughing	Erosion and sloughing 75’ on waterside slope. Scarping mid slope. Likely caused by oversteepened slope and surface run off.	Monitor	
119	Low	May 31, 2023 6:38 PM	Dave Forkel	Sta 756+00	Crack	Mel reported crack and sloughing of riprap just south of bridge.	Monitor	Not much obvious sloughing.
120	High	February 15, 2024 12:00 PM	Dave Forkel	Sta 733+00	Boil	Boil in toe ditch	Investigate	
120.1		February 22, 2024 1:00 AM	Nate Hershey					Investigations indicate the water is coming from the field side. A trench was excavated in the field, and the direction of flow was coming from the field (flowing west to east). Recommend sandbagging around the boil to manage the pressure. When conditions permit, next steps are to excavate an exploratory trench east of the toe ditch to see if there is flow is coming through the levee. If so, an exploratory trench in the levee crown is recommended.