

MEMORANDUM

March 20, 2025

TO: Reclamation District No. 2028

FROM: Nathan Hershey, Brian Janowiak

SUBJECT: **March 2025 Engineer's Report**

Described below are the engineering items to be discussed at your March 20, 2025 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. A final claim was submitted in the amount of \$317,590.36.

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.

Subventions 2025-26 – Applications for the Program are due April 1. An application will be submitted in the amount of \$600,000 prior to the deadline.

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

Emergency Response Grant (Round 3) – The District's emergency operations plan and flood contingency map has been updated. A draft has been sent to the county for review. We are in the process of coordinating the reimbursement logistics with the county. The deadline for completion is April 30, 2025.

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 complete. The maintenance period has expired and the final inspection with CDFW and DWR has been performed. We are preparing the project completion report and closing out the funding agreement.

Work under BN-19-1-SP is scheduled to resume in May. We are currently coordinating with our biologist regarding pre-construction biological surveys. The survey results will dictate the actual construction start date.

SB 88 – All equipment through Phase 4 has 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 weekly via Wildeye's website and monthly via site visits. In early March, three flow meter batteries were replaced. All Wildeye units are currently working, with the exception of:

- (1) Bouldin Island Siphon 30: Damaged by driftwood (equipment will be reinstalled when Phase 5 installations occur at nearby siphons).
- (2) Bouldin Island Siphon 24: The data collected is not being recorded correctly in Wildeye, which we believe is due to a configuration issue. MBK will coordinate with Wildeye to try to resolve the issue during Phase 5 installations.
- (3) Bouldin Island Siphon 10: The Wildeye unit is not receiving inputs from the connected flowmeter. Upon visual inspection by MBK, no issues seemed to be present. Wildeye will evaluate and repair during nearby Phase 5 installations.

All flow meters are currently working, with the exception of:

- (1) Bouldin Island Siphon 2: This meter can be replaced with the complimentary 12" meter and 14" conversion kit provided by TechnoFlo. A change order or new contract is needed with Gornto to have the equipment installed.
- (2) Bouldin Island Siphon 26: This meter can be replaced with one of the surplus 12" meters purchased by MWD during the Phase 5 equipment purchase. The extra 14" conversion kit no longer needed for Bouldin Island Siphon 9 can be used. A change order or new contract is needed with Gornto to have the equipment installed.
- (3) Bacon Island Siphon 25: This meter can be replaced with one of the surplus 12" meters purchased by MWD during the Phase 5 equipment purchase. A change order or new contract is needed with Gornto to have the equipment installed.
- (4) Webb Tract Siphon 6: This meter can be replaced with one of the surplus 12" meters purchased by MWD during the Phase 5 equipment purchase. A change order or new contract is needed with Gornto to have the equipment installed.

Phase 5 flow meter installations have begun on Bouldin Island with 1 flowmeter currently left to be installed (Bouldin Island Siphon 26). Installations on Webb Tract will begin following the completion of Bouldin Island. A separate request for proposals is being created at a later date for Bacon Island and Holland Tract. The Phase 5 Wildeye telemetry equipment has been purchased and will be delivered at the time of installation, following flowmeter installations at each site.

MBK has provided MWD staff with a draft summary technical report on the 2023 OpenET and measured diversion comparison for review and is developing a similar comparison for 2024. MBK prepared Water Year 2024 annual reports, and MWD staff submitted the reports prior to the February 1, 2025 deadline.

MBK met with MWD and Tetra Tech on March 6, 2025, to discuss the Bouldin Island Water Balance. Tetra Tech requested a recommendation by MBK regarding the metering of the discharge pumps. MBK shared that MWD has an excess 24" flange mag meter from the Phase 5 equipment purchase that could be utilized. Other meters would be required to measure flows in the larger pipes. MBK is prepared to discuss this matter further upon request by MWD.

RD 2028 – Bacon Island

Issue Tracking Summary

March 14, 2025

| 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 |
| 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 |
| 106 | Medium | November 4, 2021 4:43 PM | Dave Forkel | Sta 170+00 | Seepage | Seepage at toe of levee. | Monitor | |
| 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 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. | Repair | |
| 109 | Medium | January 10, 2023 11:02 AM | MichaelNishimura | 13+50 landside toe | Seepage | Potential sheet flow Seepage at landside toe. Adjacent to levee with several large rodent holes. Approximately 150-200' total site length. | Monitor | |

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| 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. |
| 121 | Medium | January 2, 2025 2:25 PM | Meaghan Radican | Between bridge and Hollywood area | Crack, Erosion | Cracking along levee slope | Repair | |
| 122 | Low | January 2, 2025 1:58 PM | Meaghan Radican | Hollywood area | Erosion | Erosion on WS slope just before Hollywood area | Repair | |