

MEMORANDUM

April 10, 2019

TO: Reclamation District No. 2028

FROM: Nathan Hershey

SUBJECT: April 2019 Engineer's Report

Described below are the engineering items to be discussed at your April 10, 2019 meeting.

Subventions 2015-16 – The District submitted a commitment letter to CDFW to provide 1,310 lineal feet of SRA habitat. The habitat will be planted on-island in areas where the levee has sufficient width to accommodate the planting. Two areas have been identified as potential candidates. With the RD's commitment, CDFW has agreed to approve release of retention for FY 2015-16.

Subventions 2016-17 – The District submitted an application for participation in the Program in the amount of \$396,000. \$12 million has been approved for Program funding for FY 2016-17. The District submitted a final claim in the amount of \$320,706.82.

Subventions 2017-18 – The District submitted an application for participation in the Program in the amount of \$565,000. \$14.5 million has been approved for Program funding for FY 2017-18. The District's final claim has been submitted in the amount of \$315,922.67.

Subventions 2018-19 – The District submitted an application for participation in the Program in the amount of \$500,000. \$12 million has been approved for Program funding for FY 2017-18, consistent with recent previous years.

Subventions 2019-20 – Applications for participation in the Program were due April 1. The District submitted an application in the amount of \$615,000.

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

Special Projects – Construction of the Old River multi-benefit levee rehabilitation project has paused for the winter. The project is on schedule and the levee rehabilitation component will be complete by the end of 2019.

We have submitted a Full Proposal for a Directed Action project to rehabilitate the north and south levees. DWR is currently reviewing the proposal.

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 requested an advance of funds.

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.

Siphon logs for calendar year 2018 have been summarized and will be used for water right reporting calculations. 2019 siphon logs have been received for the month of February and collection of March logs is in process. A site visit to Webb Tract was conducted to continue portable meter testing of siphon maximum capacity and flow at a typical operation level, which will be used to adjust water right reporting calculations. A site visit to Holland Tract for portable meter testing has also been scheduled.

Six of the nine existing test sites appear to be functioning properly and collecting data. Three of the existing test sites require troubleshooting and/or maintenance efforts to regain equipment function and data collection. Two of the three sites need extensive equipment replacement due to vandalism. The third site requires additional programming of the flow meter and data logger, which will be conducted during the next visit to the site. In addition, water level and pressure sensor equipment at three sites require troubleshooting and/or maintenance. MBK is currently discussing with the manufacturers possible solutions at all sites. Cost estimates have been prepared to replace all of the vandalized equipment at Siphon Nos. 39 and 40 on Bouldin Island, correct damage to solar panel installations due to wind, and to purchase new equipment for testing at three additional siphons as part of Phase 2. The purchase order to replace equipment on Siphon No. 39 was placed earlier this month and the purchase order for equipment at Siphon No. 40 is anticipated to be placed soon.

MWD provided an update to the Consortium at its March meeting, focused on the equipment vandalism/damage and its plan for 2019.

Reclamation District No. 2028 Bacon Island

Issue Tracking Summary

4/5/2019

| 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 |
| 73 | Medium | 10/21/2016 | Ralph Heringer | Station 465 @ Pump Station | Broken Equipment | Trash racks in need of maintenance/repair | Investigate | TBD |
| 8 | Low | 11/2/2016 | Dave Forkel | Station 668-702 | Encroachment | Eucalyptus trees present a hazard | Investigate | Review, explore removal |
| 72 | Medium | 1/17/2017 | Junior | West and North levees | Boil | Numerous locations along west and north levees | Monitor all boil sites; containment berms built on two most severe boils | Continue to monitor; flows seem to have receded or stopped with lower tides |
| 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 | | |
| 48 | Low | 6/14/2017 | Dave Forkel | Station 190+00 | Vegetation control | CDFW mitigation site shows evidence of arundo mowing. | Investigate | Discuss mitigation requirements. |
| 67 | Medium | 6/21/2018 | Andrew Reece | Station 596+50 | Sloughing | Rip rap sliding down slope causing exposure to waterside slope | Monitor | Monitor for right now, repair in the near future. |
| 70 | Medium | 8/2/2018 | Andrew Reece | Station 336 | Rodent Activity | Few sinkholes on ws slope approximately 200ft north of siphon. | Monitor | |
| 71 | Medium | 8/30/2018 | Michael Nishimura | Around Station 700 near South east corner of island | Rodent Activity | 2 large size burrow dens | Investigate | Just down station of Juniors place, mix of rodent burrow and erosion |
| 75 | Medium | 2/15/2019 | Mike Kynett | Old River Levee @ 473+00 | Erosion | W/s sloughing into crest, 1.5-foot tall head scarp, existing rock slipped | Monitor | |
| 76 | Medium | 2/15/2019 | Mike Kynett | Old River Levee @ ~524+00 | Erosion | W/s sloughing into crest, 3-foot tall head scarp | Repair | |

Reclamation District No. 2028 Bacon Island

Issue Tracking Summary

4/5/2019

| IssueID | Priority | Report Date | Reporter | Location | Issue Type | Description | Action | Field Notes |
|---------|----------|-------------|-------------|------------------------------------|------------|--|-------------|-------------|
| 77 | Medium | 2/15/2019 | Mike Kynett | Old River Levee @ ~530+00 | Erosion | W/s sloughing, 3-foot tall vert head scarp, not yet into crest | Monitor | |
| 78 | Medium | 2/15/2019 | Mike Kynett | Sante Fe Cut @ ~678+00 | Erosion | W/s sloughing and cracking into crest | Monitor | |
| 79 | Medium | 2/15/2019 | Mike Kynett | Connection Slough Levee @ ~204+00 | Erosion | W/s sloughing into crest, 2-foot tall head scarp, existing rock slipped | Repair | |
| 80 | Medium | 2/15/2019 | Mike Kynett | Connection Slough Levee @ ~ 262+00 | Erosion | W/s sloughing | Monitor | |
| 81 | Medium | 2/15/2019 | Mike Kynett | Old River Levee @ ~332+00 | Seepage | Report of water exiting levee during high tide | Investigate | |
| 82 | Medium | 2/15/2019 | Mike Kynett | Old River Levee @ ~364+00 | Erosion | W/s sloughing into levee crest, 1.5-foot tall scarp | Repair | |
| 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 | |