

MEMORANDUM

November 18, 2020

TO: Reclamation District No. 2028

FROM: Nathan Hershey

SUBJECT: November 2020 Engineer's Report

Described below are the engineering items to be discussed at your November 18, 2020 meeting.

Subventions 2019-20 – The District submitted an application for participation in the Program in the amount of \$615,000. DWR has lowered the Program funding amount to \$10 million for FY 2019-20. The District submitted a final claim in the amount of \$245,136.13.

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.

Annual Maintenance – Attached are the current maintenance items we are tracking. We are also working on plans to raise the levee adjacent to the residences near Station 717. The work will require some encroachment removal and tree trimming. The goal is to raise the levee while minimizing impacts.

We obtained a quote for purchasing 300 lineal feet of muscle wall (2 feet tall with liner included). The quote received was \$23,398. Storage and logistics should be considered if the District is interested in moving forward.

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

A sheet pile wall has been approved for construction under the PFA. The sheet pile wall will intercept an old sluice box discovered deep within the levee during construction near Station 525. We will likely bid the project in January 2021 and the timing of installation will be weather dependent.

We received a fully executed funding agreement for the design portion of the Directed Action project to rehabilitate the north and south levees. We have requested an advance of funds from DWR. Work is mostly on hold until we receive the advance of funds.

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 many of 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, 2021.

Delta Stewardship Council – In October, the Delta Stewardship Council (DSC) staff provided interested stakeholders an overview of the risk analysis component of the Delta Levees Investment Strategy (DLIS). Updates to the DLIS risk analysis include the incorporation of new data (2017 DWR LiDAR, updated flood hydrology and updated water surface elevations). The DSC's goal is to improve how the fragility curves

represent Delta levee conditions and failure modes. DSC staff provided a dashboard tool to review specific island/tract data and has requested feedback by the end of November. MBK is in the process of reviewing the materials provided by the DSC and intends to comment on behalf of our clients.

SB 88 – Work under Phase 3 of the measurement experiment (Feb 2020 through Feb 2021) is underway, as outlined in the approved Request for Additional Time. Phase 3 efforts primarily involve installing 8 additional flange magnetic meters on the water side of the highest use siphons, with at least one flow meter on each island. MWD obtained updated equipment quotes on October 28th and is setting up a bid process for equipment installation. After the invoices are submitted, there is up to a 6-week lead time for some of the new equipment to be delivered. MWD is confirming the delivery location for equipment storage, prior to installation. As a result of the issues with the Ultra Mag meter at Bouldin Island Siphon No. 24, the updated equipment quotes include additional enclosures for the converter units at each Ultra Mag meter site, which is anticipated to prevent moisture intrusion into the units. The converter for Bouldin Island Siphon No. 24 has been replaced, and MBK plans to reinstall it with a new enclosure this month.

MBK prepared a document to describe a plan and estimated costs for long term, strict compliance with the Measurement Requirements on the MWD islands. The total estimated cost for initial compliance is \$1,039,800, with estimated annual costs of \$195,540. This document was provided to MWD in October. Following discussions related to strict compliance, MBK prepared a list of other options for compliance, including an Alternative Compliance Plan (ACP). Current direction by MWD is to proceed with a combination of strict compliance and developing a MWD ACP. Regardless of the approach for compliance, MWD will need to submit a Request for Additional Time, prior to the expiration of the current one on December 31, 2020 for another year of time.

The Delta Measurement Experiment Consortium meeting occurred on October 15, 2020, which included a presentation by the Delta Watermaster on the development of the Delta-wide ACP, to utilize Open ET for measuring and reporting diversions. Further development of this ACP will be led by the Consortium. MBK and MWD will continue to participate in the Consortium and provide feedback on the future development of this ACP as needed.

Reclamation District No. 2028 Bacon Island

Issue Tracking Summary

11/15/2020

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
8	Low	11/2/2016	Dave Forkel	Station 668-702	Encroachment	Eucalyptus trees present a hazard	Investigate	Review, explore removal
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.
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	
92	High	9/19/2019	AndyReece	Sta 688+00 - 689+00	Crack	deep cracks at LS hinge and LS slope	Investigate	5 ft plus feet deep approx 3 inches wide along LS hinge and landside slope. In summer 2019, cracking area was excavated and re-compacted, AB was placed on the crown. On the waterside of the cracking site a beaver den was collapsed and back filled with AB in summer 2019.

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11/15/2020

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92.1	High	6/29/2020	Michael Nishimura	Sta 688+00 - 689+00	Crack	The cracking site, repaired by Dino and Sons in Summer 2019, has reopened and is approximately 100 feet in length. The number of cracks and the depth of cracks are unknown at this time.	Repair	
92.2	High	8/7/2020	Nate Hershey	Sta 688+00 - 689+01	Crack	Repaired by Dino and Sons again this week. Continue to monitor the area.	Monitor	
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	
102	Medium	10/5/2020	Dave Forkel	Sta 365+00	Crack	150 foot long crack on crown	Investigate	