

MEMORANDUM

March 15, 2023

TO: Reclamation District No. 756

FROM: Nathan Hershey

SUBJECT: **March 2023 Engineer's Report**

Described below are the engineering items to be discussed at your March 15, 2023 meeting.

Subventions 2021-22 – The District submitted an application for participation in the Program in the amount of \$631,000. An additional \$2 million was approved by the Central Valley Flood Protection Board, for a total of \$12 million approved for the Program for FY 2021-22. A final claim was submitted in the amount of \$292,577.83.

Subventions 2022-23 – The District submitted an application for participation in the Program in the amount of \$631,000. \$12 million was approved by the Central Valley Flood Protection Board for the Program for FY 2022-23.

Subventions 2023-24 – Applications for the Program are due April 1. An application similar to the submittal for the prior fiscal year will be submitted.

Annual Maintenance – Attached are the current maintenance items we are tracking. We have recently completed an updated survey of the levee system. Areas have been identified that have appeared to have settled, suggesting maintenance should be considered after the flood season.

Special Projects – Construction of the Directed Action project to rehabilitate the north levee (BO-19-1-SP) is in progress. We are working with the Contractor to begin construction on May 1. A preliminary construction schedule for the remainder of the project has been developed and provided to the District. We are in the process of reviewing various submittals, requests for information, and supporting Sukut and the consultant team preparing for the start of construction.

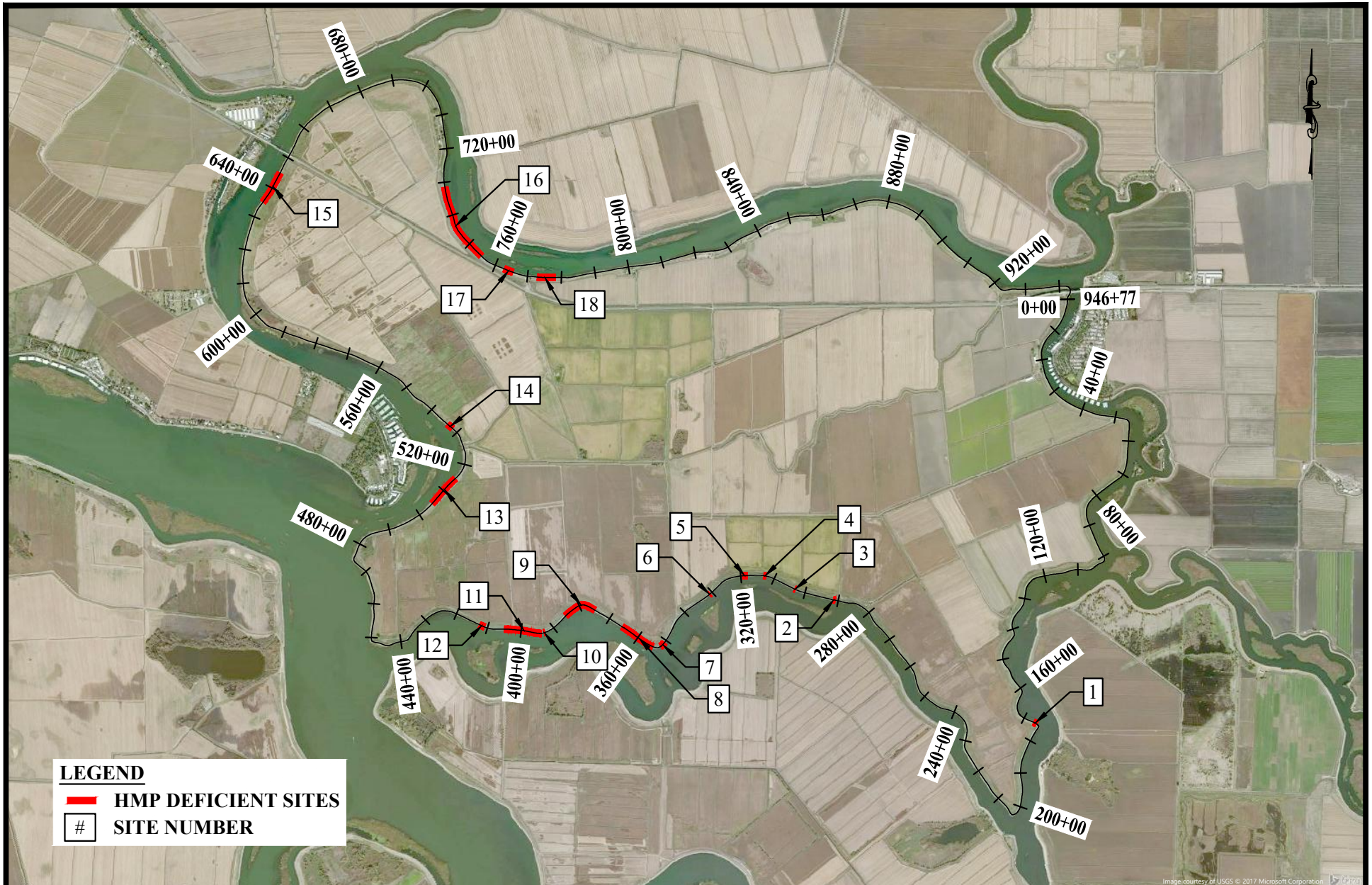
A concept proposal was submitted to DWR for the Projects Solicitation Package (PSP) for multi-benefit projects. DWR acknowledged receipt and is currently evaluating the proposals.

Five Year Plan – Work on the Five-Year Plan is nearly complete. We have addressed DWR's comments and have submitted the final version of the Plan. Upon DWR's final acceptance, we will upload the document to the RD's website.

SB 88 – MBK has obtained quotes for the equipment required at the 51 remaining metering sites. These flow meters will be installed over the next two years due to the number of sites and levee projects that begin in 2023. Prior to installation of flow meters, MBK has identified 12 sites that need to be tested for asbestos or tar coating by Bovee Environmental Management. Any sites that test positive for hazardous materials will be abated by W.C. Maloney prior to any flow meter installation.

MWD and the RDs are in compliance for calendar year 2023 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.



LEGEND

- HMP DEFICIENT SITES
- # SITE NUMBER

MBK
ENGINEERS

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RECLAMATION DISTRICT NO. 756
BOULDIN ISLAND

HMP DEFICIENT SITES

SCALE:	1" = 4000'
JOB NUMBER:	4125.6
DRAWN BY:	AR
DATE:	03/09/2023
SHEET:	1 OF 1

RD 756 - Bouldin Island

Issue Tracking Summary

March 11, 2023

Issue ID	Priority	Report Date	Reporter	Location	Issue Type	Description	Action	Field Notes
023	Low	February 11, 2017 4:00 PM	Jaime Barajas	Station 859	Boil	Boil on lower levee slope/toe; running at high tide	Monitor	25 LF core trench along WS hinge to depth of 8'; no pipe or water encountered; backfilled with native material.
024	Low	February 11, 2017 4:00 PM	Jaime Barajas	Station 924+10	Boil	Boil on lower levee slope/toe; running at high tide	Monitor	40 LF core trench along WS hinge to depth of 8'; encountered water seeping from landside trench wall at 8' depth; backfilled with native and imported dry fill; Drainage ditch to be cut along Caltrans access roadway from Sta 926 to Sta 2 to relieve ponding. Work to be done by Sierra Cattle.
034	Low	February 20, 2017 4:00 PM	Nate Hershey	Station 813	Encroachm ent	Siphon may be low	Monitor	8/14/17 - Waterside top of pipe = 7.2; 100 yr. flood = 7.6; 12" siphon; pipe is low; Continue to Monitor
041	Medium	March 28, 2017 4:00 PM	Ralph Heringer	Station 544-549	Crack	Cracking in LS Slope; seepage and cattails at toe	Monitor	Monitor and discuss repair; 10/23/17 Levee crown trenched; no encroachments located, Area to be graded and prepared for flood season; will proceed under Special Projects upon receipt of PFA. 12/4/17 - grading complete
41.1		April 23, 2020 11:00 PM	Nate Hershey					Reviewed the site area. Area appears to be moving again - not as dramatic as in 2017, but it appears to be along the same fault lines. Seepage observed exiting the surface. Recommend performing an updated survey and developing an action plan.
41.2		March 10, 2023 12:00 AM	Andrew Petrini					Visual observation suggests recent movement may have occurred. AECOM reports no significant movement detected by instrumentation at this time.

053	Medium	August 10, 2017 11:00 PM	Nate Hershey	Station 324	Seepage	Seepage at toe of 3 to 1 slope	Monitor	Monitor
054	Medium	August 10, 2017 11:00 PM	Nate Hershey	Station 336	Seepage		Monitor	Monitor; The hole is shallow at about 1-2 inches deep.
074	Low	January 5, 2019 4:54 PM	Russ Ryan	Land side within 150 foot Levee footprint. See attached photos. Low wet areas.	Sinkhole, Other	Bouldin Island - West stretch length adjacent to Mokelumne River. See attached photos for exact location.	Investigate	See notes above.
088	Low	June 7, 2019 12:55 PM	Dave Forkel	Sta 382+00	Seepage	Seepage on side of levee.	Investigate	
094	Low	September 27, 2019 5:02 PM	Brian Janowiak	Lower toe	Other	Area along lower toe near seepage ditch by Florida tip appears to have settled.	Monitor	
096	Medium	April 21, 2020 11:00 PM	Russ Ryan	Between 630 and 640	Seepage	Appears to be seepage	Investigate	
107	Medium	December 17, 2020 1:05 PM	Russ Ryan	Station 630	Seepage	Just inside levee footprint on land side of toe drain there water ponding. Was there prior to any rain this season during dry period.	Monitor	See photos taken on site.
108	Medium	July 7, 2021 11:00 PM	Russ Ryan	Station 90	Crack	Cracking observed on landside slope. Unclear if this is a result of the earthquake event.	Monitor	
109	Medium	July 7, 2021 11:00 PM	Russ Ryan	Station 226	Sloughing	Potential landside settlement on toe berm. Unclear if this is earthquake related.	Monitor	
110	Medium	July 7, 2021 11:00 PM	Russ Ryan	Station 503	Sloughing	Landside disturbance. Unclear if earthquake related or due to sheep activity.	Monitor	
116	Medium	February 21, 2022 2:23 PM	Russ Ryan	West levee north of camp 5 at pilot project instrumentation area.	Seepage	Noticeable standing water at toe of levee at the same 2017 slippage event.	Investigate	Need Geotech investigation and assessments.
117	Low	February 23, 2022 11:10 AM	Russ Ryan	Location is landside off west levee (Bouldin Island) and south of Hwy 12	Seepage	Landside water ponding presenting at toe of levee.	Investigate	Roughly an estimated 30 feet by 10 feet. Dimensions need to be verified in field investigation.
120	Medium	May 19, 2022 9:15 AM	Nate Hershey	Station 856	Seepage	Seepage and ponding water reported at location of old toe ditch near Station 856. Confirmed in field (see photos).	Monitor	Recommend monitoring and repairing as part of Special Projects work on north levee. Continue to monitor and adjust if necessary.
121	Medium	October 13, 2022 11:00 PM	Nate Hershey	Station 33	Seepage	Seepage observed periodically on toe of levee. Seems to come and go, sometimes difficult to tell if it is seepage or ponding water. Observations suggest it is likely seepage that	Investigate	

						periodically appears during times of high water.		
122	High	January 4, 2023 12:00 AM	AndrewReece	Station 492	Boil	Boil observed near ramp. Appears to have recently started. Water flowing down ramp. Need to stabilize.	Repair	
123	High	January 4, 2023 12:00 AM	AndrewReece	Station 498	Erosion	Waterside slope eroding in several locations.	Repair	
124	Medium	January 4, 2023 12:00 AM	AndrewReece	Station 555	Erosion	Eroded slope	Repair	
125	Medium	February 13, 2023 12:56 PM	Michael Nishimura	836+00 west of siphon	Erosion	25-40' of erosion within upcoming special project area. Erosion top of scarp is approximately 3 feet (slope distance) away from WS hinge.	Monitor	
126	Medium	February 17, 2023 11:12 AM	Dave Forkel	Camp 29 Pump Station	Erosion	Washout behind sump sheet piling	Repair	
127	Medium	March 7, 2023 12:24 PM	Michael Nishimura	485+90	Boil	Seepage boil mid slope. 4 layer sand bag ring. 18 feet slope distance down from landside hinge.	Monitor	
128	Medium	March 7, 2023 12:49 PM	Michael Nishimura	499+50	Boil	Sink hole mid slope at grade break. 20 feet (slope distance) below landside hinge.	Monitor	