

MEMORANDUM

March 18, 2020

TO: Reclamation District No. 2028

FROM: Nathan Hershey

SUBJECT: **March 2020 Engineer's Report**

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

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 2018-19, consistent with recent previous years. The District's final claim was been submitted in the amount of \$276,982.97. DWR and CDFW have performed their annual inspection and the claim is currently being processed.

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.

Subventions 2020-21 – Applications for participation in the Program are due April 1. A draft of the application is attached. We will incorporate any final comments and submit prior to the deadline.

Annual Maintenance – Attached are the current maintenance items we are tracking. We have reviewed the status of the stationing paddles on the island, and missing paddles are scheduled to be installed later this month.

Special Projects – The enhancement component of the Old River multi-benefit levee rehabilitation project is in-progress. All planting is complete, and herbicide has been applied to the slopes to control broadleaf vegetation and invasives. Maintenance activities will be on-going to promote plant health and longevity.

We submitted a Full Proposal for a Directed Action project to rehabilitate the north and south levees in January 2019. DWR has agreed to fund the project design and we have received a funding agreement for the non-construction portion of the project. The District executed the agreement and it has been returned to DWR. Once the agreement is fully executed, we can begin work on the design.

Five Year Plan – Work on the Five-Year Plan is currently in progress. We will be distributing a draft for review and comment in the coming months. The Plan must be completed by the end of 2020.

SB 88 – Work under Phase 2 of the measurement experiment (work plan for 2019 through Feb 2020) has concluded and work under Phase 3 will soon commence. MBK is awaiting MWD comments on a draft report summarizing MBK's efforts relative to Phase 2, and then will finalize the report. Phase 3 will include the installation of new measurement devices (flange magnetic meters, channel water level sensors, and telemetry equipment) on Bacon Island, Bouldin Island, Webb Tract, and Holland Tract, on the water side of the siphons. In addition, some existing equipment will continue to be used. MBK recently obtained approval of the budget for Phase 3 and will move forward with purchasing new equipment, removing existing equipment that is no longer functioning, and relocating/repurposing existing equipment that is functional. MBK will

continue to perform regular field visits to inspect the equipment and perform portable meter testing on any siphons running at the times of the visit.

On February 27th, MBK and MWD attended the quarterly Delta Measurement Consortium meeting to provide an update to the Consortium on the planned efforts for Phase 3. At the meeting, the Delta Watermaster informed the group that his office will be pursuing a Delta-wide Alternative Compliance Plan focused on Open ET; he asked for the cooperation of the Consortium in that effort. MWD and the RDs plan to proceed with the planned Phase 3 efforts while continuing participation with the Consortium and investigating the potential use of Open ET.

RECLAMATION DISTRICT NO. 2028 – BACON ISLAND
DELTA LEVEES MAINTENANCE SUBVENTIONS PROGRAM APPLICATION

MARCH 2020

TOTAL AMOUNT REQUESTED 2020–2021: \$615,000

District Summary

The levee system surrounding Bacon Island is under the jurisdiction of Reclamation District No. 2028 (District). The 14.39 miles of non-project levee include 1.38 miles along Railroad Cut, 5.27 miles along Old River, 2.77 miles along Connection Slough, and 4.98 miles along Middle River (Sheet 1).

The District was formed in 1918 to maintain the levee system that protects approximately 5,625 acres of agricultural land, approximately 20 residents¹, local infrastructure, and on-island assets.

Financial Information and Method of Assessment

The District obtains revenues primarily through property assessment. The District has the ability to assess landowners up to \$455,418 each year. The District uses the assessment to pay for District operations, levee maintenance and levee rehabilitation. Assessment rates are determined by dividing the total benefit by the number of Benefit Units (BUs) in order to determine an assessment rate per BU. The base rate for the benchmark Vacant/Open Range parcel is set at \$69.89 per year per acre. Rates for other types of parcels are based upon relative replacement costs. As of June 30, 2018, the District's liabilities total \$6,226,676, see the attached Financial Statements with Independent Auditor's Report for the year ending June 30, 2018 for additional information. The District does not receive any ad valorem property tax.

Work Plans

Long-Range Plan

The District submitted its Five Year Plan to DWR in June 2012, which includes its maintenance and rehabilitation plans, target dates, cost estimate, centerline profiles and cross-sections. The District did not include a listing of encroachments. The encroachment listing is on file with the District and will be updated during the District survey. The District's goal has been, and will

¹ Delta Wetlands Project Place of Use, Draft Environmental Impact Report, April 2010

continue to be, to improve and maintain the levees. The District is currently updating their Five-Year Plan.

Annual Routine Maintenance Plan

The District plans to continue its routine maintenance practices, which it has done consistently for a number of years, as evidenced by the current state of the levee system. Routine tasks include levee patrol; rodent control; all weather roadway repairs; repair of minor subsidence sloughing or slipouts; debris removal; toe ditch cleaning; vegetation control; waterside slope protection; flood emergency planning and preparation; surveying; engineering services; and other maintenance and permitting as needed.

The District has executed a Routine Maintenance Agreement (RMA) (#II-049-94) under Section 1600, et seq., of the California Department of Fish and Wildlife (CDFW) Code. This Agreement defines the District's maintenance work on the waterside of the levee.

District staff patrols the levee daily. The District's Superintendent conducts periodic inspections when something is found during the routine patrols. If applicable, a levee maintenance inspection report for non-project levees will be prepared for reimbursement of inspection-related expenses in accordance with the reporting guidelines provided in Appendix D of the Guidelines.

The District will exterminate burrowing rodents and fill the burrows with compacted material, on an as needed basis. As designated by CDFW, no filling of burrows in burrowing owl areas shall take place during the period of March 15 through August 15, with the exception of the filling of beaver and muskrat dens near the waterline. Application of County-permitted and restricted bait materials, or any other approved method of rodent eradication, shall be done in accordance with labeled instructions and regulations.

The District will repair, grade, and shape the levee crown as needed, so that the levee crown will maintain a uniform shape, resulting in the drainage of water equally throughout the surface, and eliminating the risk of pocketing or excessive runoff locations. Levee patrol road areas require placement of all-weather road surfacing for wet weather accessibility. Work will be performed in a manner that will keep dust to a minimum and prevent siltation from impacting the adjacent waterways. The weight and speed of all vehicles using the patrol or levee access roads shall be restricted.

A seepage/irrigation ditch is located near the levee toe extending almost the entire perimeter of Bacon Island. Typically, the seepage/irrigation ditch is 4 feet wide at the bottom, 8 feet wide at the top and ranges from 4 to 5 feet in depth. For years, this ditch has been annually cleaned by removal of silt deposited at its bottom. Ditch cleaning is likely to occur in the late fall, or weather permitting, during the winter. On average, any particular portion of the ditch system is cleaned every three years. Vegetation loss from cleaning is insignificant since the process only removes silt from the bottom of the ditch.

District vegetation control consists of three features: spraying, hand clearing, and mechanical clearing. Spraying is performed using land-based equipment, applying herbicide to the crown, waterside slope, and landside slope where needed to control noxious vegetation. Noxious vegetation not controlled by spraying is typically controlled by District forces using hand tools, discs, choppers and brush hogs. The District's vegetation control practices have been routine for a number of years.

The District's RMA for controlling vegetation on the waterside slopes includes, but is not limited to the following additional conditions:

- To protect ground nesting birds and other breeding wildlife species, herbicides may not be applied between March 15 and July 1.
- A soil sterilant may only be applied to control *Arundo donax*.
- Removal of branches, stems, and shoots of weeds, brush, berry vines, and shrubs may be removed except between March 15 and June 30.
- Except between March 15 and June 30, the District may remove trees under 2 inches and over 18 inches in diameter at diameter breast height (DBH). Roots must remain in place when removing trees under 2 inches in diameter at DBH. Removal of trees over 18 inches in diameter at DBH require special permission; if permission is granted, the roots may be removed.

The District repairs waterside erosion when required.

The District has an approved Emergency Operation Plan. The District procured flood supplies in 2016 and maintains those supplies on an ongoing basis.

As needed, the District may remove, raise, or modify encroachments that endanger the levee or interfere with levee maintenance; survey the levee; and replace missing station markers to ensure there are station markers at least every one-half mile or 2,500 feet.

The routine maintenance of the levee under the jurisdiction of the District for 2020–2021 will likely consist of the following items along with the estimated cost.

Annual Routine Maintenance Items	Estimated Cost \$
Levee Patrol	60,000
Rodent Control	5,000
All Weather Road	15,000
Subsidence, Sloughing, and Slipouts	20,000
Debris Removal	10,000
Seepage Control	10,000
Clean Drains and Toe Ditches	25,000
Vegetation Control	25,000
Waterside Slope Protection	50,000
Flood Planning and Preparation	10,000
Remove or Modify Encroachments	50,000
Surveying	5,000
Engineering	20,000
Misc. (gates, signage, etc.)	5,000
Environmental (CDFW permits, mitigation etc.)	200,000
Total Routine Maintenance	\$510,000

Rehabilitation Plan

Multiple sites may require rehabilitation during the fiscal year. Details regarding limits of work will be finalized prior to construction.

Rehabilitation Items	Estimated Cost \$
Rehabilitation Work	100,000
Environmental Documentation (CDFW, CEQA etc.)	5,000
Total Rehabilitation	\$105,000

Compliance with Applicable Laws

The District will abide by all applicable laws including, but not limited to, labor compliance and mileage reimbursement rates.

- All work, subject to labor compliance laws, will be required to meet the Department of Industrial Relations Labor Compliance Program requirements.
- The District acknowledges that reimbursement of automobile mileage, as it relates to eligible work, will follow the prevailing Federal Standard Mileage Rate for the cost of operating an automobile.

Environmental Compliance

The District has concluded that its long-range, routine maintenance practices and levee rehabilitation are Categorically Exempt under the California Environmental Quality Act (CEQA). The District will file a Notice of Exemption with San Joaquin County to that effect.

The District's work activities, for the fiscal year of the application, will be carried out in a manner consistent with the requirements set forth under California Water Code (CWC) Section 12987. The District does not anticipate habitat impacts that would result in a net long-term loss of habitat; therefore, no mitigation is planned. If habitat impacts associated with levee maintenance activities occur, the District will mitigate the impacts to meet the requirements of CWC Section 12987. The District proposes, and hereby requests, to utilize the programmatic enhancement habitat credits, if necessary. The District will comply with the net habitat improvement mandates of the CWC Section 12987.

The District's maintenance plan complies with the California Endangered Species Act, the Federal Endangered Species Act, and California Fish and Game Code § 1600 et seq., regarding Lake and Streambed Alteration Agreements.

The District's maintenance plan is consistent with the Clean Water Act, and the Rivers and Harbors Act, as administered by USACE.

Minor erosion repair may be performed under a project specific, or a RMA CDFW Streambed Alteration Agreement, and/or USACE Nationwide Permit, depending on repair requirements. All applicable parties will be informed of the activity as required.

The District will notify responsible and trustee agencies of any actions that fall within these agencies' jurisdiction as required by law.

Federal Disaster Assistance

In any given year, the District's expectation is to be ready for potential emergency operations during the flood season. While the District is unable to predict the potential outcome in a given year, there is always the potential for emergency flood fighting, and subsequent levee repairs and rehabilitation. In the case that an emergency (federal, state or local) occurs, the District will properly administer the emergency and seek reimbursement for eligible expenses through all available programs including under PL 93-288. If federal assistance is unavailable, the District will coordinate with the Delta Levees Maintenance Subventions Program for possible reimbursement.



MN/ta

4290.1 SUBVENTIONS APPLICATION 2020-2021

Reclamation District No. 2028 Bacon Island

Issue Tracking Summary

3/16/2020

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	
95	Medium	12/12/2019	AndyReece	siphon north of Mel's	RodentActivity	possible beaver den under tree south of siphon	Investigate	