

DOCKETED

Docket Number:	15-AFC-02
Project Title:	Mission Rock Energy Center
TN #:	216060
Document Title:	Nina Danza Comments: Erosion Protection Planned at SCR- 1 and Application to MREC
Description:	N/A
Filer:	System
Organization:	Nina Danza
Submitter Role:	Public
Submission Date:	2/15/2017 10:00:00 PM
Docketed Date:	2/16/2017

Comment Received From: Nina Danza

Submitted On: 2/15/2017

Docket Number: 15-AFC-02

Erosion Protection Planned at SCR-1 and Application to MREC

Additional submitted attachment is included below.

In Data Set 2A (docketed 12/30/16) CEC staff requested the following:

Request 148. Describe how side slopes would be protected from erosion after Mission Rock construction is complete. Indicate whether stabilization is vegetative or nonvegetative (or both) and approximate time needed for stabilization to be fully effective (e.g. curing time or mature growth).

Response was given as follows (docketed 1/30/16):

Response: See Response to Data Request #144 regarding the timing of preparation, and approval, of planned site-specific BMPs to protect side slopes from erosion after construction is complete. It is currently anticipated that the stabilization of the side slopes will be vegetative. After the threat of winter storms has passed, hydroseeding and fiber rolls will be placed permanently on the 2:1 fill slopes. The hydroseed mix will require irrigation to ensure adequate vegetation establishment during summer months. The fiber rolls will be trenched and placed at a maximum of 10-foot contour intervals (intervals of approximately 5-feet will be proposed to make fiber rolls more effective) following the contour elevations of the slopes. The hydroseeding can be used in conjunction with mulching to provide adequate erosion control in the span of time when the vegetation is becoming established. The approximate time needed for stabilization to be fully effective will vary depending on how protection of slope through hydroseeding and mulching has been implemented.

Please consider that erosion protection of existing earth levees on the south bank of the Santa Clara River are planned by the Ventura County Watershed Protection (VCWPD) as part of an upcoming project (SCR-1). The project is not far from MREC, starting at approximately Central Ave. (approx. 4 mi. downstream) and proceeding to Hwy 101 (approx. 2 mi. in length). The existing levee exhibits erosion, scour at the toe, and burrowing animal defects, and does not meet FEMA or Army Corps of Engineers (ACOE) standards.

A 2015 design study prepared by TetraTech for VCWPD concluded the preferred alternative for levee protection to be 'Alternative 1 – an 8-foot-wide section of soil cement with a slope of 1H:1V' as shown in the figure below. The TetraTech study computed hydraulic flow and velocities using the Hydrologic Engineering Center—River Analysis System (HEC-RAS), Version 4.1.0 (ACOE 2010a) program. TetraTech also performed sediment transport analysis for the erosion protection concept design.

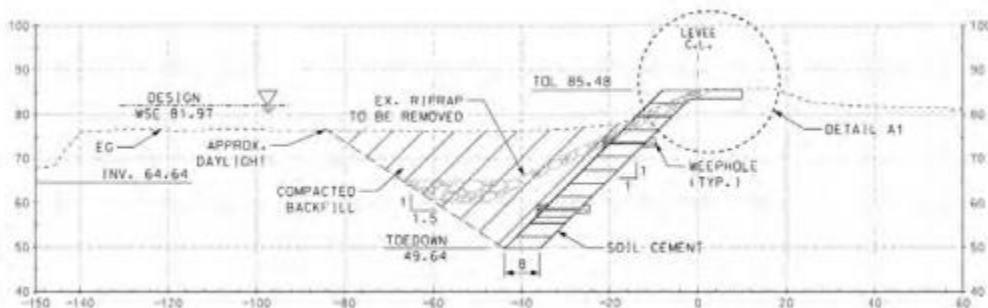


Figure 4.1 – Typical Cross Section of Alternative 1, Soil Cement for Design Flow (Sta. 270+00)

(complete study online:

http://pwportal.ventura.org/WPD/dept/WPD/santa_clara_river/docs/07%20SCR-1%20100_%20Draft%20Feas.%20Level%20Alternatives%20Document_March%202015.pdf)

Key features of the preferred alternative include: an 8' thickness soil cement facing, total height of levee pavement 35' (approx.), 30' soil backfill against levee, with 15' pavement depth below existing river invert.

Though differences between this location and the MREC location exist, for example: (a) the SCR-1 levee is under ACOE jurisdiction and their regulatory standards whereas the proposed MREC fill may

not be; (b) SCR-1 is subject to ACOE design standards which prohibit vegetation on levees whereas MREC fill is not, the essential need for erosion protection is the same for both projects.

The projects are not far apart in distance. Knowing the planned erosion protection at SCR-1, a similar preliminary concept for erosion protection of fill at MREC should be based on answers asked by CEC such as:

1. Has hydraulic modeling been performed to determine flood flow characteristics eg depth and velocity such as that done for SCR-1?
2. Has modeling been performed to determine projected erosion at the fill toe?
3. Has sediment transport been modeled and incorporated into the erosion protection concept?
4. What are the special characteristics of flow at this location (vector direction and force)?
5. Are vegetation and fiber rolls adequate for erosion protection at MREC based on information at other locations and provided by the above questions?

Approving an application for construction of fill at MREC with inadequate erosion protection, especially for a critical utility, exhibits poor judgment and is a disservice of the CEC agency. Please obtain robust information and make decisions based on sound judgment.