NOTICE OF EXEMPTION

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To: Office of Planning and Research
P.O. Box 3044, Room 212
Sacramento, California 95812-3044
and
Merced County Clerk
2222 M Street
Merced, California 95340

From: Eastside Water District
731 E. Yosemite Avenue, Suite B #147
Merced, CA 95340

Project Title: EWD Diffused Surface Water Program – Mustang Creek Managed Aquifer Recharge (MAR) Project – Dry Wells

Project Location: Mustang Creek is an ephemeral stream located in Merced County that flows seasonally in most winter periods. Its watershed exists east of the City of Turlock between the Tuolumne and Merced Rivers. A flood detention reservoir is located north of East Avenue and east of Montpelier Road and a flood detention basin is located east of the Turlock Airport, fed by bifurcation structure in Mustang Creek located south of this same airport.

Project Description: Two flood control structures were built on Mustang Creek by the US Department of Agriculture and will be utilized for the proposed MAR Project. Flood waters not detained in these two facilities continue down Mustang Creek threatening the Turlock Irrigation District (TID) Highline Canal and significant portions of the City of Turlock. The MAR Project will enhance the storage capacity of both the reservoir and the basin without the need to physically expand these facilities. Torrent MaxWell dry-wells will be installed at both sites to enhance the ability of both sites to accept flood flows from the Mustang Creek watershed.

The reservoir site can hold about 600 AF on approximately 100-acres. The basin site size is approximately 74-acres with a capacity to hold 95 AF. Torrent dry-wells will be installed to enhance the percolation capability of the reservoir and basin sites, thereby enhancing the capacity of the project to protect the Highline Canal and City of Turlock from potential flood damage.

Public Agencies Approving Project: Eastside Water District on behalf of Merced County and the Merced County Resource Conservation District, and the City of Turlock as the underlying owner of the flood detention basin site adjacent to the Turlock Airport.

Person Carrying Out Project: Eastside Water District.

Exempt Status: This project is exempt under Title 14 California Code of Regulations Sections 15301 (b), (d), (f), and (m), as it involves minor public alterations to existing flood control facilities, structure or facilities, maintenance of existing facilities, conversion of facilities, and minor alterations to land and is necessary to meet current standards of public safety.

Contact Person: Kevin M. Kauffman, EWD Water Consultant, 209-478-4940

Kevin M. Kauffman 2/21/19 ~~5/26/16~~ Eastside WD Water Consultant

Signature Date Title

Date received for filing: FEB 28 2019

STATE CLEARINGHOUSE

Mustang Creek Detention Basin Recharge Design Considerations

We performed design calculations per your request to meet a target flow rate of 2.0 CFS. The targeted flow rate calculations contain a mix of both 110' and 65' deep Torrent Maxwell, with an approximate ratio of 2:1 for each scenario. If desired, this ratio can be altered, but our intention is to engage with a diverse and extensive swath of the highly permeable soils, so we can allow recharge to occur within both of the deep, permeable vadose zones. This diversification also helps mitigate against the natural uncertainty of deep subsurface conditions.

For the 65' deep Torrent Maxwell, the given infiltration rate, 30.8 ft/day, is applied across the geometry of the Maxwell rock column (30') to obtain the flow rate of 0.139 CFS per drywell. For the 110' deep Maxwell, the given infiltration rate, 30.8 ft/day, is applied across the geometry of the Maxwell rock column, minus the 25' of low permeable soil (sandy silt). The result is a total of 50' of infiltration depth which results in a flow rate of 0.228 CFS per drywell.

For this project we are seeking to achieve a total target flowrate of 2.0 CFS. To start we are proposing a smaller-scale Pilot Project with three drywells to prove the concept and verify the estimated drywell flowrates. These three drywells would consist of two MaxWell Plus systems to 110' and one MaxWell Plus system to 65'. All three systems will include a flowmeter so that volumetric flow over time can be recorded. After the initial Pilot Project can be assessed, we would coordinate with you to reevaluate the number of drywells required to achieve a total of 2.0 CFS flowrate. We would also consider modifying the ratio of 110' vs. 65' deep drywells.

The nomenclature for Maxwell's includes the terms "Maxwell IV" and "Maxwell Plus". A Maxwell IV is a single chamber system (just the infiltration chamber) and a Maxwell Plus contains two chambers, the infiltration chamber and a settling chamber (details attached). The recommended configuration is to have the MaxWell Plus systems as near as possible to the bottom of the basin grades. The remaining systems, which are all MaxWell IVs, will have the grates set approximately 4" or more above grade. The MaxWell Plus systems will allow water to infiltrate immediately as the basin fills up and for standing water to draw down after flow has stopped. These systems are not just engaged during the filling and drawing down of the basin, they will be functioning the entire duration in which water is accumulated in the basin.

Install filter sleeve in drywell excavation.

- (Item 1 & 2 of Pilot project) Backfill the trench(es) and the top 14' around the settling chamber(s) with two-sack slurry mix.
- (Item 1 & 2 of CFS Upgrade) Backfill the top 14' around the settling chamber(s) with two-sack slurry mix.
- Concrete slurry bottom in settling chamber(s).
- Penetrate a minimum of 10' into permeable soils.
- Maintenance Data Sheet and MaxWell® FIVE-YEAR Warranty.
- Municipal inspection and Underground Alert coordination as required.
- Proper site protection and adherence to OSHA regulations.
- Variance in total drywell depth of 110' / 65', ADD $58/LF for additional depth down to 120', DEDUCT $20/LF for less than 110' / 65'. If project total add or deduct is less than $100, no credit or charge will be made.