United States Department of the Interior
BUREAU OF RECLAMATION
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IN REPLY REFER TO:

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VIA ELECTRONIC MAIL ONLY

David Randall, Senior Planner
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Development Services and Capital Projects Division
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Subject: RE: Draft Environmental Impact Report for the proposed modification to the existing CEMEX Rockfield Quarry (EIR No. 7763 and Unclassified Conditional Use Permit Application Nos. 3666 and 3667)

Dear Mr. Randall,

The U.S. Bureau of Reclamation (Reclamation) is submitting this comment letter regarding the County of Fresno's Draft Environmental Impact Report (DEIR) 7763 for the CEMEX Rockfield Quarry: Rockfield Modification Project (proposed project).

The mission of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public. Reclamation has extensive infrastructure that is operated in the San Joaquin Basin in support of this mission, including the Friant Division of the Central Valley Project (CVP), which could be impacted by this proposed project. In addition, Reclamation is implementing the San Joaquin River Restoration Program (SJRRP) in accordance with the San Joaquin River Restoration Settlement and the San Joaquin River Restoration Settlement Act (Act), included in Public Law 111-11. The proposed project is located within the SJRRP Restoration Area and has the potential to impact Reclamation's successful implementation of the SJRRP.

With these responsibilities and interests in mind, Reclamation appreciates the County of Fresno's (County's) efforts on the proposed project and consideration of the agency's comments. General comments are provided herein, and specific comments are provided in the attached technical comment spreadsheet.

Existing Conditions

Reclamation is concerned that the environmental setting does not adequately describe the physical environmental conditions in the vicinity of the proposed project, as required by Section 15125(a) of the California Environmental Quality Act (CEQA), and requests a complete description of the following resources be included in the description of the environmental setting:

a. Terrestrial and aquatic wildlife, including species listed in accordance with the Endangered Species Act, that may be present in the vicinity of the proposed project
b. The existing impacted hydrology of the San Joaquin River (SJR)
c. Actions being taken to implement the SJRRP, including:

(1) Reintroduction of Central Valley (CV) spring-run Chinook salmon (*Oncorhynchus tshawytscha*)
(2) SJRRP flows that offset existing impacts to the river and CV spring-run Chinook salmon

d. The Plant Site river water delivery ditch (delivery ditch) and its connection to Little Dry Creek

Reclamation also requests that a projected future conditions baseline be included in addition to existing conditions for hydrologic impact analyses, as provided for in CEQA Section15125(a)(1). The DEIR groundwater section and adaptive management plan assume future groundwater conditions will be similar to existing conditions. However, the ongoing implementation of the SJRRP involves increased flows down the SJR, which will elevate the river stage, increase the river's connectivity with adjacent groundwater, and increase groundwater levels in some locations. Because current conditions are the only baseline used in the analysis of impacts and as a measure of future impact in the adaptive management program, the hydrologic impacts of the proposed project are likely underestimated and would be involuntarily subsidized by SJRRP flows, negatively impacting the implementation of the SJRRP and Reclamation's water rights. The analysis should include impacts based on future SJRRP flows and the adaptive management program should be designed in a way that future SJRRP flows are not impacted by operation of the proposed project.

Holding Contracts and Water Rights

Reclamation is concerned with the applicant's described use of the Holding Contract for this project. Reclamation provides the following comments solely to inform the applicant's environmental review. Reclamation reserves all rights, claims and defenses available to the U.S. under the Holding Contracts.

a. The DEIR improperly points to Holding Contract #15 as a water right; a Holding Contract does not purport to be a water right nor is it a water supply contract for CVP water. Reclamation could not locate any water right associated with any CEMEX parcel and no water use reports could be located in the State electronic Water Rights Information Management System database. The State of California has required all water right claimants to have claims on file and submittals of annual use since 2006. The applicant should provide evidence that it may lawfully divert water as described in the DEIR.
b. In addition, and assuming the applicant can demonstrate authorization to divert water as described in the DEIR, Holding Contract #15 obligates the water user to return any water used for specified industrial purposes to the river free of pollution and/or contamination. The applicant should provide evidence that they are able to return the water to the river free of pollution and/or contamination. It appears the applicant is proposing to capture river flows in the Quarry Site that contain hazardous materials as a flood reduction strategy. This approach would create unnecessary pollution risk and divert water supplies into the quarry that would otherwise be available for other water users. All flood flows should be routed away from the site. The project proponent should also confirm with the State Water Resources Control Board that this action would conform with the Governor's order regarding the use of flood flows for groundwater recharge.

Floodplain Analysis

Reclamation has serious concerns about the use of an alternative floodplain map in the hydrologic impact analysis. The current Federal Emergency Management Agency (FEMA) map shows portions of both the Quarry Site and the Plant Site to be located within the 100-year floodplain. Given the proposed project's 100-year life, that would mean the project sites have a 63% chance of flooding within the project lifetime and a 38% chance of experiencing a 200-year flood during the proposed project's 100-year life (NOAA's

National Weather Service, n.d.). The DEIR uses an alternative floodplain map, which does not show the Quarry Site to be located within the floodplain, as the basis for the analysis of impacts of the proposed project. Reclamation has several concerns with this approach:

a. The alternative map does not appear to have been peer reviewed or accepted by FEMA as an official amendment to the currently effective Flood Insurance Rate Map through a Letter of Map Revision (LOMR). Use of an alternate floodplain map that has not been approved through FEMA floodplain mapping is insufficient evidence to demonstrate that the Quarry Site would not be impacted by a 100-year flood event.
b. The 2022 public draft of the Central Valley Flood Prevention Plan Technical Analyses Summary Report (2022 CVFPPT draft technical analyses) (Department of Water Resources, 2022) includes climate change flood frequency analyses for low, medium, and high climate change impact scenarios in 2072. As a part of the analyses, it identifies the change in peak flows for the 1997 flood under the respective climate change conditions. It found that at the Gravelly Ford gage, the projected change in peak flows would increase 132% under the low scenario, 162% under the medium scenario, and 208% under the high scenario (Table 5.6). This data strongly suggests flood forecasts will increase in magnitude over the life of the proposed project.

The applicant's less conservative approach increases the risk that flood water will enter the proposed project sites without impact assessments or mitigation measures. Until FEMA has accepted the applicant's alternative floodplain map through a LOMR, the official FEMA map should be used for all hydrologic analyses in the DEIR. Should the County move forward with the applicant's HEC-RAS model approach, Reclamation recommends running larger flood events, such as those anticipated in the 2022 CVFPPT draft technical analyses, to understand the risk of large flood events affecting the proposed project by connecting the river to the Quarry Pit and potentially polluting the SJR. In either case, the current analysis based on the alternative map does not include an analysis of direct or indirect impacts from overland flooding into the Quarry Site. Since the proposed project is within the FEMA 100-yr floodplain and is highly likely to experience a large flood during the proposed project life, an analysis of effects of overland flooding to the Quarry Site should be included in the DEIR.

Impact Analyses

Reclamation is concerned the DEIR provides an incomplete impact analysis for several resource categories as further described below.

Geology and Hydrology

Reclamation is concerned that the analysis presented in the DEIR has an antiquated understanding of SJR hydrology and understates the current and future connectivity between the SJR and the Quarry Pit. The analysis presented provides limited data comparing the river stage and groundwater levels and does not evaluate the river at higher stages as are expected with continued implementation of the SJRRP. In addition, connectivity may be greater than anticipated due to local variation in rock fracturing not characterized in the exploratory borings. Supplemental analysis should be completed to better understand the connectivity between the river and the Quarry Site so that appropriate mitigation can be developed and implemented.

It does not appear that an analysis was conducted of impacts of Plant Site pumping on the SJR. The SJR is approximately 800 feet from the Plant Site. Little Dry Creek, which provides tributary flows to the SJR, is within 200 feet of the Plant Site. Please provide an analysis as to how the lowering of the groundwater

table around the Plant Site will impact flows in the surface tributaries and include this additional impact determination in the DEIR.

In the analysis it is stated that the Friant-Kern Canal (FKC) is the primary contributor of groundwater in the area and compares maximum canal flows that only take place in wet years to median river flows in support of this claim. The FKC is lined and over a mile away from this location, while the river is only 200 feet from the site. Comparing maximum canal flows that only take place in wet years to median river flows does not account for temporal, hydrologic, or geographic factors. Please provide a supplemental analysis to verify this assumption or otherwise amend it.

Water Quality

As currently proposed, water pumped from the sites would either directly, or after other uses, be placed into recharge pits and trenches adjacent to the site. However, there is no water quality treatment proposed to take place prior to placement in settling and recharge vessels. If water that exceeds water quality standards for surface or groundwater is placed in the trenches, it has the potential to contaminate existing groundwater supplies and percolate into the SJR, impacting aquatic species such as CV spring-run Chinook salmon. An analysis should be conducted on the proposed project's potential to contaminate river water from recharge operations.

To the extent long-term recharge operations at the Quarry Site would be generated from pumping of the pond, pond water quality should be analyzed in greater detail to disclose what constituents would be put into the recharge trenches from the pond. The Quarry Site Pond should be monitored for water quality concerns in a similar fashion to the Plant Site Pond and, if water quality standards are exceeded, mitigation measures should be implemented, including but not limited to, installation of an aeration or oxygenation system in the Quarry Site Pond.

Biological Resources

Due to incomplete descriptions of existing conditions and incomplete hydrology, water quality, and other resource impact analyses, there is not currently enough information to complete a biological resources impact assessment since impacts to many of these resources, especially aquatic species, are dependent on other resource impacts. The biological resources analysis should be revised based on inclusion of the information requested above.

Blasting Impacts

The river adjacent to the Quarry Site is a rearing site for juvenile CV spring-run Chinook salmon and an over-summer holding and spawning site for adult CV spring-run Chinook salmon. Although the project proponent's analysis concludes the blasting protocols will have significantly less impacts than those that may "cause harm" such as mortality, it is not possible to verify the field accuracy of the analysis. Blasting impacts greater than those stated in the report may impact fish behavior at various life stages (i.e., juveniles displaced from cover in rearing habitat, adults displaced from holding and spawning habitat) and therefore impact the success of SJRRP. Blasting impacts should be monitored to verify the level of impact.

Invasive Species

Reclamation is concerned with the potential for invasive aquatic fish species entering the river from the Plant Site Pond, especially should the existing delivery ditch remain in place. The applicant should screen the ditch and ensure the ditch is in no way connected to the Plant Site, even in the event of flooding, to prevent invasive species introduction to the SJR.

Cumulative Impacts
Reclamation is concerned about the cumulative impacts analysis. The SJR has significant cumulative impacts to its hydrology due to existing diversions, as demonstrated by the need for the SJRRP. Therefore, for the purposes of analyzing cumulative impacts to the hydrology of the SJR, cumulative impacts of this proposed project should be determined based on whether the project is cumulatively considerable, not on whether the impact itself is determined to be significant or if the project substantially draws down groundwater. Please revise this analysis.

Mitigation Measures

Floodplain Management
Reclamation requests the proposed project develop additional mitigation measures such as enhanced berms, overland flooding hazardous management plans for the site, and plans to put flood waters back into the river free of pollution or other water quality constituents from the sites to avoid and minimize impacts to the SJR in the event of a flood event.

Sediment Management
In reviewing Google Earth (n.d.) aerial photography, sediment deposition from the Plant Site into the delivery ditch is visible at times. The delivery ditch is directly connected to Little Dry Creek and the SJR. Plant Site flood protections should be increased as a part of project mitigation measures to maintain the natural channel and prevent the introduction of sediment into the river from the project site.

Blasting
The 2013 State of Alaska Department of Fish and Game Blasting Standard (Alaska Blasting Standard) cited by the applicant identifies mitigation monitoring (hydrophones) that should be conducted in conjunction with blasting (Timothy, 2013). Reclamation requests that the applicant adaptively manage blasting for impacts to aquatic life. Reclamation has provided a recommended mitigation approach for consideration:

Year 1 of blasting: Monitor blasting impacts at the river adjacent to the Quarry Site. Depending on monitoring results, implement the following actions:

(1) Below 0.6 pounds per square inch and 0.5 inches per second: no action.
(2) Between 0.6 pounds per square inch-6 pounds per square inch or 0.6 inches per second-2.0 inches per second: implement avoidance and minimization measures outlined in the Alaska Blasting Standard and continue monitoring.
(3) Above 7.3 pounds per square inch or 2.0 inches per second: implement avoidance, minimization, and mitigation measures outlined in the Alaska Blasting Standard and continue monitoring.

At the end of one year of monitoring, re-evaluate the need for monitoring using the following parameters:

(4) If after 1 year, river impacts stay below 0.6 pounds per square inch and 0.5 inches per second, no additional monitoring is needed so long as future blasting techniques don't create additional pressure or other river impacts.
(5) If after 1 year, river impacts have been between 0.6 pounds per square inch-6 pounds per square inch or 0.5 inches per second-2.0 inches per second, continue monitoring and implementing avoidance and minimization measures until 1 year of 0.6 pounds per square inch and 0.5 inches per second measurements.

(6) If after 1 year, river impacts exceeded above 7.3 pounds per square inch or 2.0 inches per second, continue to implement monitoring and avoidance, minimization, and mitigation measures until 1 year of lesser pounds per square inch measurements are experienced, at which point follow guidance for the range of pounds per square inch and inches per second measurements experienced.

If at any point blasting technique changes so that blasts have the potential to be more impactful to the surrounding land than they were during a 1-year monitoring period where blasts registered below 0.6 pounds per square inch and 0.5 inches per second at the river, river monitoring should take place for the period of higher impact blasting to verify that the new blasting technique does not create additional impacts to the river. So long as impacts of the new blasting technique remain below 0.6 pounds per square inch and 0.5 inches per second at the river, no additional monitoring is necessary for that blasting technique. If the blasting technique creates impacts, either cease the technique or re-enter monitoring, avoidance, minimization, and mitigation measures described above.

As a part of this adaptive management measure, the applicant is encouraged to work with Reclamation to understand when and where various life stages may be present to efficiently apply avoidance, minimization, and mitigation measures.

Groundwater Monitoring

Reclamation requests the applicant use the MW-2 monitoring well cluster in addition to MW-1 monitoring well cluster in the adaptive management plan for the Quarry Site. This would likely provide additional benefit to the mitigation measure by providing spatial coverage representing the southern portion of the Quarry Site. Infiltration from the river into the excavated site will be highly influenced by localized fracture characteristics, as demonstrated by the airlift permeability testing in hard rock at MW-2; the well's test results were 10 times greater than at MW-1.

Reclamation also requests that baseline conditions for all groundwater monitoring programs be developed so that they can adapt to expected increased baseflow conditions in the SJR associated with the SJRRP. Reclamation requests the opportunity to review and comment on the baseline proposals and to review the annual reports and any impact evaluations produced.

As currently proposed, the adaptive management plan states that if, upon additional assessment it is confirmed "that a decrease in groundwater levels greater than 15 percent is exclusively attributable to mine dewatering, then corrective measures would be implemented" (4.10-109). The burden of proof is inappropriately placed in this circumstance. The applicant should bear the responsibility to prove that their project does *not* contribute to impacts above 15 percent and, to the extent impacts may be attributable to them, appropriate corrective measures should be implemented. Reclamation recommends amending this in the adaptive management plan.

200-foot Setback

Reclamation is concerned about using a 200-foot setback from the river for the Quarry Site. There is no justification provided for the applicability of this setback other than preceding permits. The last time the Conditional Use Permits (CUPs) were updated was in 2004 (from the early 1980s), which was prior to the Settlement and Settlement Act that resulted in the SJRRP. Therefore, the 200-foot setback did not consider the SJRRP restoration activities and reintroduction of CV spring-run Chinook salmon. To avoid adversely impacting the implementation of the SJRRP, this buffer should be revised for any subsequent CUPs, including the proposed project. Reclamation recommends that, based on the sensitive special status resources present near the site, the maximum feasible setback be considered.

In conclusion, Reclamation does not have enough information to adequately analyze the impacts of the proposed project to the resources the agency manages. Reclamation requests additional information be provided in the DEIR regarding baseline conditions, impact analyses, and mitigation measures, as described above and in the attached technical comment spreadsheet.

Reclamation appreciates the opportunity to comment on this proposed project and the County's consideration of our comments. Please contact Ms. Becky Victorine at rvictorine@usbr.gov with any questions or if there is a need for discussion of these comments in more detail.

Sincerely,

KARL STOCK

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Karl Stock
Regional Director
California-Great Basin Region
U.S Bureau of Reclamation
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Enclosure

cc: Kristin White, Deputy Regional Director, California Great Basin, Bureau of Reclamation
Rain Emerson, Deputy Area Manager, SCCAO
Donald E. Portz, Program Manager, SJRRP
Jason Phillips, Chief Executive Officer, Friant Water Authority
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Chuck Bonham, Director, California Department of Fish and Wildlife
Jen Quan, Regional Administrator, NOAA Fisheries West Coast Region
Paul Souza, Regional Director, Pacific Southwest Region, USFWS
Tom Gibson, Lead Deputy Director, California Department of Water Resources

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