



**PROJECT DESCRIPTION AND APPLICATION SUPPLEMENT
FOR THE
CEMEX CONSTRUCTION MATERIALS PACIFIC, LLC.
CACHE CREEK MINING PERMIT AND
RECLAMATION PLAN AMENDMENT PROJECT**

Applicant:

CEMEX Construction Materials Pacific, LLC.
2365 Iron Point Road, Suite 120
Folsom, CA 95630

Prepared by:

Compass Land Group
3140 Peacekeeper Way, Suite 102
McClellan, CA 95652



February 2018

TABLE OF CONTENTS

1.0	INTRODUCTION	1
1.1	Executive Summary.....	1
1.2	Name and Addresses of Applicant’s Representatives	2
1.3	Project Location and Access	2
1.4	Assessor Parcels, Ownership, Zoning, and General Plan Designations	2
1.5	Site Legal Description.....	3
1.6	Mineral Resource Classification.....	3
1.7	Surrounding Land Uses	4
2.0	SITE HISTORY AND EXISTING ENTITLEMENTS	4
2.1	Site and Entitlement History.....	4
2.2	Existing County Entitlements	8
3.0	PROJECT PURPOSE, OBJECTIVES, AND JUSTIFICATION.....	9
3.1	Project Purpose.....	9
3.2	Basic Project Objectives	11
3.3	Project Justification.....	11
4.0	REQUESTED COUNTY ENTITLEMENTS.....	12
5.0	OFF-CHANNEL SURFACE MINING ORDINANCE APPLICATION CONTENTS.....	12
5.1	Narrative Description of the Proposed Surface Mining Operations [OCSMO §10-4.502(a)].....	12
5.1.1	Consistency of the Proposed Surface Mining Operations With the OCSMO, General Plan, Zoning, and Applicable Specific Plans [OCSMO §10-4.502(a)(1)] ..	13
5.1.2	Waste Disposal and Contamination Control [§10-4.502(a)(2)]	20
5.1.3	Surface Water Drainage and Erosion Control; 100-Year Flood Protection [§10-4.502(a)(3)]	20
5.1.4	Hours of Operation and Nighttime Operations [§10-4.502(a)(4)]	20
5.1.5	Soil Test Borings, Soil Quality, and Slope Stability [§10-4.502(a)(5)]	20
5.1.6	Anticipated Quantity and Type of Materials; Estimated Maximum Annual Production [§10-4.502(a)(6)]	21
5.1.7	Summary Phasing Table [§10-4.502(a)(7)]	21
5.2	Site Specific Technical Reports [OCSMO §10-4.502(b)].....	22
5.3	Site Plan, Cross-Sections and Survey Requirements [OCSMO §10-4.502(c)-(f)] ..	23
5.4	Initial Environmental Assessment [OCSMO §10-4.502(g)]	23

5.5	Other Applicable Discretionary Permits [OCSMO §10-4.502(h)]	23
5.6	Proposal for “Net Gain” [OCSMO §10-4.502(i)]	23
5.7	Application Forms [OCSMO §10-4.502(j)]	23
6.0	SURFACE MINING RECLAMATION ORDINANCE APPLICATION CONTENTS.....	24
6.1	Reclamation Plan [SMRO §10-5.601(a)-(h)].....	24
6.1.1	Consistency of the Proposed Reclaimed Use With the SMRO, General Plan, Zoning, and Applicable Specific Plans [SMRO §10-5.601(a)(1)]	24
6.2	Initial Environmental Assessment [SMRO §10-5.601(i)]	27
6.3	Other Applicable Discretionary Permits [SMRO §10-5.601(j)]	28

TABLES

Table 1	Assessor Parcels, Ownership, Zoning and General Plan Designations	3
Table 2	OCSMO Consistency Matrix	14
Table 3	Summary Phasing Table	21
Table 4	SMRO Consistency Matrix.....	24

SHEETS

Sheet PD-1	Vested Entitlements
Sheet PD-2	Mining and Reclamation Area Comparison

1.0 INTRODUCTION

1.1 Executive Summary

CEMEX Construction Materials Pacific, LLC. (“CEMEX”) proposes to modify Long-Term Off-Channel Mining Permit No. ZF #95-093, Reclamation Plan No. ZF #95-093 and Development Agreement No. 96-287 (as subsequently amended, “Existing Entitlements”) with revised mining and reclamation plans and a 20-year time extension (“Cache Creek Mining Permit and Reclamation Plan Amendment Project”, or “Project”).

The Project provides for:

1. The continuation of mining on ±489 acres with reclamation on ±838 acres;
2. A change in phasing to promote the efficient and continuous operation of the electric dredge, eliminating the need to disassemble and relocate the dredge between phases;
3. A change to the approved reclamation plan’s end uses that will result in an increase in acreage reclaimed to agriculture from ±376 acres to ±450 acres (an increase of ±74 acres);
4. A minor change to the approved mining and reclamation plan footprint consistent with the Stipulated Order to Comply entered into between CEMEX and Yolo County on June 2, 2017; and
5. A 20-year extension of the mining permit to 2047 to allow for the extraction of aggregate reserves within the proposed mining footprint.

The Project is an extension and modification of an approved project. Except as outlined above, CEMEX proposes no change to any fundamental element of the existing operation (e.g., mining methods, maximum depth of mining, processing operations, use of settling ponds to contain and settle aggregate wash fines, production limits, water use, power use, truck traffic, or hours of operation).

Surface mining is proposed to continue on 489± acres and reclamation is proposed to occur on 838± acres of the 1,902± acre property to a maximum depth of 70 feet below ground surface (bgs) in seven phases. The mine is planned to be further developed and ultimately reclaimed in seven (7) phases, the first two of which have already been mined (with no further mining planned) but not fully reclaimed. Consistent with Existing Entitlements, all of the proposed mining areas are located outside the active channel of Cache Creek.

The Project is designed to be consistent with the Yolo County Off-Channel Mining Plan (“OCMP”) including its Off-Channel Surface Mining Ordinance (“OCSMO”) and Surface Mining Reclamation Ordinance (“SMRO”).

1.2 Name and Addresses of Applicant’s Representatives

Owner / Applicant:

Attn: Deborah Haldeman
CEMEX Construction Materials Pacific, LLC.
2365 Iron Point Road, Suite 120
Folsom, CA 95630
(916) 941-2844

Agent / Land Use Consultant:

Attn: Yasha Saber
Compass Land Group
3140 Peacekeeper Way, Suite 102
McClellan, CA 95652
(916) 825-4997

Counsel:

Attn: Pat Mitchell, Esq.
Mitchell Chadwick LLP
3001 Lava Ridge Court, Suite 120
Roseville, CA 95661
(916) 462-8888

Engineer:

Attn: Steve Greenfield
Cunningham Engineering
2940 Spafford Street, Suite 200
Davis, CA 95618
(530) 758-2026

1.3 Project Location and Access

The Project is located at 30288 CA-16, Woodland, California 95653, in the central portion of unincorporated Yolo County. The mine, processing plant and office are currently accessed from an existing driveway entrance on the north side of California Highway 16. The site is predominantly located east of Interstate 505, but includes one parcel and mining phase (Phase 7) immediately west of Interstate 505.

The Project is located within the boundaries of the Cache Creek Area Plan (“CCAP”) adopted by the Board of Supervisors in 1996 and amended in 2002. The CCAP incorporates the OCMP and Cache Creek Resource Management Plan (“CCRMP”). As pertains to this Project, the CCAP and OCMP are implemented through the OCSMO and SMRO.

The Project is located in the southern portion of a relatively flat and wide alluvial valley known as Hungry Hollow. The local topography consists of a broad alluvial plain formed at the base of the eastern flank of the California Coast Range. The alluvial valley is oriented northwest to southeast. Cache Creek transects the valley, flowing generally from west to east.

1.4 Assessor Parcels, Ownership, Zoning, and General Plan Designations

The Project site’s assessor parcel numbers, ownership, County zoning and County General Plan land use designations are shown on Table 1, below.

**TABLE 1
ASSESSOR PARCELS, OWNERSHIP, ZONING AND GENERAL PLAN DESIGNATIONS**

APN	Assessor Acres¹	ROS Acres²	Ownership³	Zoning⁴	General Plan⁵
025-450-001	291.1	280.0	United Metro Materials Inc	A-N (SG)	AG, OS
049-060-004	6.3	6.3	Solano Concrete Co Inc	A-N (SG)	AG, OS
049-060-007	142.8	142.4	Solano Concrete Co Inc	A-N (SG)	AG
049-070-004	112.7	110.7	United Metro Materials Inc	A-N (SG)	AG, OS
049-070-005	98.5	112.8	United Metro Materials Inc	A-N (SG)	AG, OS
049-070-006	200.2	200.1	United Metro Materials Inc	A-N (SG)	AG, OS
049-070-009	444.0	461.6	United Metro Materials Inc	A-N (SG)	AG, OS
049-070-010	17.1	17.1	Solano Concrete Co Inc	A-N (SG)	AG, OS
049-070-011	26.2	26.5	Solano Concrete Co Inc	A-N (SG)	AG, OS
049-070-019	53.9	48.0	Solano Concrete Co Inc	A-N (SG)	AG, OS
049-070-020	212.2	218.5	United Metro Materials Inc	A-N (SG)	AG
049-070-021	276.4	278.3	Solano Concrete Co Inc	A-N (SG)	AG
Total:	1,881.4	1902.3			

Notes:

1. Source: Yolo County Assessor, accessed November 28, 2017.
2. Source: Record of Survey, filed January 12, 2018, in 2018 Book of Maps at pages 2-4.
3. United Metro Materials, Inc. and Solano Concrete Co Inc. are fully-owned subsidiaries of CEMEX.
4. A-N = Agricultural Intensive. The Sand and Gravel (SG) overlay zone applies to State designated mineral resource zones (MRZ-2) containing critical geological deposits needed for economic use in the future, as well as applying to existing mining operations. The portions of the parcels that are subject to mining already have the SG overlay.
5. Source: 2030 Countywide General Plan, with verification thru Yolo County GIS Public Viewer. AG = Agriculture. OS = Open Space. The Open Space land use designation applies to the portions of the parcels associated with Cache Creek.

1.5 Site Legal Description

Please refer to the Record of Survey enclosed with this application, as well as Sheet M-01 of the Revised Reclamation Plan.

1.6 Mineral Resource Classification

The State Department of Conservation has divided the areas along Cache Creek into four Mineral Resource Zones (“MRZs”). These zones are used by the State to define areas containing valuable mineral deposits. The identification of these zones is a guideline to assist local jurisdictions in making land use decisions with consideration given to the importance of mineral resources to the market region, and the discouragement of uses that would inhibit harvesting of those resources.

The Project site is located within the MRZ-2 zone, specifically. The OCMP defines the MRZ-2 zone as:

“Areas where adequate information indicates that significant mineral deposits are present, or where it is determined that a high likelihood for their presence exists. In addition, there are two economic requirements that must be met if land is to be classified as MRZ-2: (1) the deposit must be composed of material that is suitable as a marketable commodity; and (2) the deposit must meet a threshold value (gross selling price) equal to at least \$5,000,000 (1978 dollars).” (OCMP Chapter 1.2).

1.7 Surrounding Land Uses

The predominant land uses in the vicinity of the Project include aggregate mining and processing, agriculture and open space associated with Cache Creek. To the north, the site is bound by Cache Creek and agricultural lands that lie beyond it. To the east, the site is bound by agriculture as well as a rural residential / commercial land use. To the south, the site is bound by California Highway 16 and agriculture, with a few rural residences. To the west (with the exception of Phase 7), the site is bound by Interstate 505. Phase 7 is bound to the west by agriculture and rural residences.

2.0 SITE HISTORY AND EXISTING ENTITLEMENTS

2.1 Site and Entitlement History

Following this summarized chronology is a more detailed discussion of the site and entitlement history.

- Early 1900s – Aggregate mining commences at Cache Creek.
- February 1971 – County approved **ZF #1541**, allowing Solano Concrete to mine and establish of an off-channel processing plant that is still used to this day.
- January 1972 – County approved **ZF #1901**, allowing an asphalt batch plant.
- August 1978 – County approved **Mining Permit and Reclamation Plan No. ZF #2859**, allowing off-channel mining and reclamation to row-crops on 100 acres.
- October 1980 – County approved **Use Permit ZF #G-2**, allowing the continuation of in-channel mining on 266 acres with reclamation to a streamway.
- April 1992 – County approved **ZF #ZA736**, allowing asphalt plant storage silos.
- June 1994 – County adopted County Resolution 94-73, adopting goals for the development of the OCMP, CCRMP, and OCSMO.
- September 1995 – County approved **Mining Permit and Reclamation Plan No. ZF #94-065**, allowing short term, off-channel mining on 35 acres over a 3-year period with

reclamation to row-crops, as well as continued operation of the plants. This permit also amended ZF #2859 to expand the area reclaimed to row-crops.

- November 1996 – County approved **Long-Term Off-Channel Mining Permit No. ZF #95-093, Reclamation Plan No. ZF #95-093, and Development Agreement No. 96-287**, allowing off-channel mining on ±586 acres over a 30-year period with reclamation of ±686 acres to permanent lakes, habitat, tree-crop production, row-crop production, slopes and roads. As part of these approvals, the County rescinded the prior Mining and Reclamation Permit Nos. ZF #2859 and ZF #94-065. Solano also relinquished its rights for mining within the Cache Creek channel.
- December 1996 – County issued **Flood Hazard Development Permit ZF #96-070** in accordance with Section 8-3.401 of County Code that requires a permit for developments in the FEMA Flood Zone “A”.
- June 1998 – County approved an amendment to the Long-Term Off-Channel Mining Permit No. ZF #95-093, allowing an extension of time to construct road.
- 1999 – Solano’s assets were acquired by Kiewit Corporation.
- May 2001 – County approved amendment **ZF #2000-087**, allowing relocation of a concrete batch plant from its previous location in Madison to the mine site.
- 2002 – Rinker Materials acquired the site.
- April 2003 – County approved an amendment to exchange Phases IV and VI.
- 2008 – CEMEX acquired Rinker’s assets and became the current owner / operator.
- March 2014 – County approved **ZF #2013-0003** as a minor modification to the reclamation plan for ZF #95-093, clarifying the reclamation boundary and end use of the aggregate processing plant site.
- May 2015 – County approved **ZF #2014-0039** as a minor modification to the mining plan for ZF #95-093 to resolve a 2014 Notice of Violation for deviating from the spatial pattern of mining.

Aggregate mining in Yolo County has occurred in and along Cache Creek since the early 1900s. From the inception of aggregate mining in the County to approximately 1995, the primary focus of mining had been the extraction of sand and gravel resources from the Cache Creek channel and its active floodplain.

The Cache Creek mine, also referred to as the “Solano Concrete – Off Channel Mining Permit” or “Madison Plant,” was originally developed by Solano Concrete Company, Inc. (“Solano”) and has been continuously mined since 1971. In 1999, Solano’s assets were acquired by Kiewit Corporation, which were later acquired by Rinker Materials in 2002. In 2008, CEMEX acquired Rinker’s assets and became the current owner / operator of the site.

Prior to any surface mining disturbances, the Project site was predominantly used for agriculture. Solano began gravel extraction and processing in the Project vicinity in 1971 following County

approval of **ZF #1541** (Planning Commission, February 16, 1971), which allowed for aggregate extraction as well as the establishment of an off-channel processing plant that is still used to this day.

In 1972, the County approved **ZF #1901** (Planning Commission, January 18, 1972) to allow for the addition of an asphalt batch plant. In 1992, the County approved **ZF #ZA736** (Planning Commission, April 15, 1992), amending ZF #1901 to allow for the addition of storage silos to the existing asphalt batch plant. From approximately 1971 to 1980, Solano mined and processed aggregates sourced from the Cache Creek channel pursuant to ZF #1541 and ZF #1901.

In 1978, Solano applied for its first off-channel mining permit to excavate gravel from the terrace deposits south of the Cache Creek channel. Later that year, following preparation of an Environmental Impact Report (“EIR”) (Jones & Stokes Associates, Inc., 1978), the County approved **Mining Permit and Reclamation Plan No. ZF #2859** (Planning Commission, August 16, 1978) to allow for off-channel mining and reclamation on 100-acres with reclamation to row-crop production (on property referred to as the “Hutson parcel” (currently a portion of Phase I to be reclaimed under existing entitlements). Mining of the 100-acre off-channel Hutson parcel was ultimately completed in 1995 and has since been substantially reclaimed to agriculture; however, to the best of our knowledge, reclamation sign-off has not occurred.

In 1979, shortly after County approval of Mining and Reclamation Permit ZF #2859 allowing for off-channel mining on the Hutson parcel, the County adopted the In-Channel Interim Mining Regulations (“1979 Regulations”) that regulated the removal of aggregates from the channel of Cache Creek. In 1980, following preparation of an EIR evaluating in-channel mining impacts (Environ, 1980), the County approved **Use Permit ZF #G-2** (Planning Commission, October 29, 1980) to allow for the continuation of in-channel mining on 266 acres with reclamation to a streamway. Operation of the then existing Solano aggregate processing plant was not affected by the issuance of ZF #G-2. Solano continued in-channel mining from approximately 1980 to 1995 pursuant to this permit, but less frequently and less intensively than had occurred in years prior.

In 1994, the County adopted County Resolution 94-73 (Board of Supervisors, June 14, 1994), adopting a conceptual framework of goals and objectives for the development of the OCMP and CCRMP, including the OCSMO to be contained in the OCMP. The OCMP and CCRMP were resolved to be developed in recognition of the need to accommodate a shift in emphasis from in-channel to off-channel mining. The Board of Supervisors also adopted County Resolution 94-82 to allow processing of short-term off-channel mining applications during the period of development of the OCMP.

Meeting the eligibility criteria to file a short-term permit application pursuant to County Resolution 94-82, Solano submitted application for an off-channel mining project on the “Farnham West parcel” (currently the eastern portion of Phase I to be reclaimed under existing entitlements). In 1995, following preparation of an EIR (BASELINE, 1995), the County approved **Mining Permit and Reclamation Plan No. ZF #94-065** (Board of Supervisors, September 5, 1995) to allow for short-term, off-channel mining on 35 acres over a 3-year period with reclamation to

agricultural row-crop production as well as continued operation of the processing and batch plants. This permit also included an amendment to ZF #2859 to expand the area reclaimed to row-crop production. Mining of the Farnham West parcel has since been completed and is being reclaimed to agriculture.

In 1995, in parallel with the County's development of the OCMP and CCRMP, Solano submitted a long-term mining permit application which ultimately formed the basis for the overall footprint of the existing Cache Creek mine. In 1996, following preparation of an EIR (BASELINE, 1996) that tiered off of the program-level EIRs for the OCMP and CCRMP, the County approved **Long-Term Off-Channel Mining Permit No. ZF #95-093, Reclamation Plan No. ZF #95-093 and Development Agreement No. 96-287** (Board of Supervisors, November 25, 1996) to allow off-channel mining on ±586 acres over a 30-year period with reclamation of ±686 acres to permanent lakes, habitat, tree-crop production, row-crop production, slopes and roads. As part of these approvals, the County rescinded the prior Mining and Reclamation Permit Nos. ZF #2859 and ZF #94-065 for the Hutson parcel and Farnham West parcels, respectively. As memorialized in the Development Agreement No. 96-287, as part of the approvals Solano also relinquished its rights for aggregate extraction within the active channel of Cache Creek upon commencement of mining under the new off-channel entitlements. Shortly thereafter, the County also issued **Flood Hazard Development Permit ZF #96-070** (Director's Approval, December 16, 1996) in accordance with Section 8-3.401 of County Code that requires a permit for developments (i.e., the approved off-channel mining permits) in the FEMA Flood Zone "A" designation.

The County has since approved several amendments to the Long-Term Off-Channel Mining Permit No. ZF #95-093. In 1998, the County approved an amendment (Board of Supervisors, June 16, 1998) to modify Condition of Approval No. 66 to allow for an extension of time to construct required road improvements. In 2001, the County approved amendment **ZF #2000-087** (Board of Supervisors, May 22, 2001), to allow for relocation of a concrete batch plant from its previous location in the town of Madison to the existing on-site aggregate processing facility. In 2003, the County approved another amendment (Board of Supervisors, April 15, 2003) to exchange Phases IV and VI.

More recently, in 2014, the County approved **ZF #2013-0003** (Director approval, March 12, 2014) as a minor modification to the reclamation plan for ZF #95-093 to clarify the reclamation boundary and end use of the aggregate processing plant site. This minor modification resulted from the September 5, 2012, California Department of Conservation "Lead Agency Review" of Yolo County. The current plant site reclamation plan commits CEMEX to reclaim the entire 30-acre plant site to agricultural use.

Most recently, in 2015, the County approved **ZF #2014-0039** (Natural Resources Manager approval, May 13, 2015) as a minor modification to the mining plan for ZF #95-093 to resolve a 2014 Notice of Violation. The County issued the 2014 Notice of Violation to CEMEX for deviating from the spatial pattern of mining that was approved as part of ZF #95-093. In approving this modification, the County determined that CEMEX could continue mining with the existing dredge in the current configuration in the open phases without any impacts to public health and safety

or slope stability.¹ The minor modification stipulates that CEMEX shall not carry out wet mining in Phase 5 (of the Existing Entitlements) until it demonstrates that the alluvial separators between Phases 3 and 4 have been re-established.

2.2 Existing County Entitlements

CEMEX currently owns and operates the Cache Creek Mine pursuant to the following known Yolo County entitlements:

1. **ZF #1541** (Planning Commission, February 16, 1971), vesting processing plant facilities only.
2. **ZF #1901** (Planning Commission, January 18, 1972) allowing an asphalt batch plant.
3. **ZF #ZA736** (Planning Commission, April 15, 1992), allowing storage silos for the asphalt batch plant.
4. **Long-Term Off-Channel Mining Permit No. ZF #95-093, Reclamation Plan No. ZF #95-093 and Development Agreement No. 96-287** (Board of Supervisors, November 25, 1996), as subsequently amended from time to time, allowing off-channel mining on ±586 acres over a 30-year period with reclamation of ±686 acres to permanent lakes, habitat, tree-crop production, row-crop production, slopes and roads.²
 - a. **ZF #2013-0003** (Director approval, March 12, 2014), a minor modification to ZF #95-093, clarifying the reclamation boundary and requiring reclamation of the 30-acre aggregate processing plant site to agriculture.
 - b. **ZF #2014-0039** (Natural Resources Manager approval, May 13, 2015), a minor modification to the mining plan for ZF #95-093, allowing mining to continue with the existing dredge in the current configuration in the open phases, but not allowing wet mining to commence in Phase 5 until the alluvial separators between Phases 3 and 4 have been re-established.
5. **Flood Hazard Development Permit ZF #96-070**, for off-channel mining developments in the FEMA Flood Zone “A” designation.

See also Sheet PD-1, Vested Entitlements. The Long-Term Off-Channel Mining Permit No. ZF #95-093, Reclamation Plan No. ZF #95-093 and Development Agreement No. 96-287 were fully

¹ To further explain the 2014 Notice of Violation, at the time of permit approval in 1996, Solano anticipated that mining would occur via scrapers, dozers, draglines, and excavators. However, in 2005, Rinker Materials (Solano’s successor and operator at the time), implemented the use of an electric floating dredge. The dredge requires a continuous pond to move from one area to the next; therefore, the alluvial separators between individual pits were mined out.

² The difference in areas approved for mining and reclamation (i.e., 100 acres) is attributable to the 100-acre portion of Phase 1 (the “Hutson parcel”) where mining was completed in 1995 but had not yet been reclaimed to agriculture. As part of the approvals of ZF #95-093 in 1996, the County rescinded the 100-acre mining rights on the Hutson parcel but still required reclamation to occur.

analyzed under CEQA in the EIR for the “Solano Long-Term Off-Channel Mining Permit Application” (BASELINE 1996). Mitigation measures from the 1996 EIR were adopted as conditions of approval by the County Board of Supervisors and memorialized in Development Agreement No. 96-287.

The Project does not propose to modify existing permits ZF #1541, ZF #1901, ZF #ZA736, or ZF #96-070 (i.e., Items 1, 2, 3 and 5 above).

3.0 PROJECT PURPOSE, OBJECTIVES, AND JUSTIFICATION

3.1 Project Purpose

CEMEX proposes to modify its Existing Entitlements with revised mining and reclamation plans and a 20-year time extension. The Project specifically provides for:

1. The continuation of mining on ± 489 acres with reclamation on ± 838 acres;
2. A change in phasing to promote the efficient and continuous operation of the electric dredge, eliminating the need to disassemble and relocate the dredge between phases;
3. A change to the approved reclamation plan’s end uses that will result in an increase in acreage reclaimed to agriculture from ± 376 acres to ± 450 acres (an increase of ± 74 acres);
4. A minor change to the approved mining and reclamation plan footprint consistent with the Stipulated Order to Comply entered into between CEMEX and Yolo County on June 2, 2017; and
5. A 20-year extension of the mining permit to 2047 to allow for the extraction of aggregate reserves within the proposed mining footprint.

The Project is an extension and modification of an approved project. CEMEX proposes no change to any fundamental element of the existing operation (e.g., mining methods, maximum depth of mining, processing operations, use of settling ponds to contain and settle aggregate wash fines, production limits, water use, power use, truck traffic, or hours of operation).

Existing Entitlements allow off-channel mining in seven phases on ± 586 acres with reclamation of ± 686 acres. The Project proposes to continue mining on ± 489 acres with reclamation on ± 838 acres of the $1,902\pm$ acre property to a maximum depth of 70 feet bgs in seven phases. With respect to mining, no additional mining is proposed to occur in Phases 1 and 2 and only very minor (non-substantial) changes to the mining footprint are proposed at the northern portions of Phases 3 through 6 to address County compliance requests (see Sheet PD-2, Mining and Reclamation Area Comparison). No increase to the approved mining footprint is proposed for Phase 7. Consistent with Existing Entitlements, all of the proposed mining areas are located outside the active channel of Cache Creek.

With respect to reclamation, the Project proposes a ± 152 -acre increase in the overall area to be reclaimed (± 838 acres proposed versus ± 686 acres under Existing Entitlements), primarily owing

to the Revised Reclamation Plan's inclusion of areas located between the north boundary of Phases 1 through 7 and the south bank of Cache Creek (see Sheet PD-2). The change in reclamation acres is not due to any substantial proposed increase in surface disturbance or operating areas. Existing surface mining disturbances in these northerly areas (e.g., access roads, conveyor alignment, soil and overburden stockpiles) are appropriately included as part of the reclamation plan boundary. In addition, this Project's acreage calculations are now based on an official Record of Survey boundary (filed January 12, 2018, in 2018 Book of Maps at pages 2-4), which is considered more accurate than the hand-drawn boundaries that were used to calculate acreages for the Existing Entitlements. The Project proposes to reclaim ±450 acres to agriculture, whereas the Existing Entitlements would reclaim ±376 acres to agriculture (i.e., 346 acres of reclaimed mining area plus 30 acres of reclaimed plant site).

The Project will provide for an estimated 30,000,000 tons of sand and gravel (sold weight) and 34,483,000 million tons of sand and gravel (mined weight) to be produced, assuming a 13% wash loss at the aggregate processing plant (that will be directed to settling ponds). Consistent with Existing Entitlements, annual maximum production will continue to be 1,000,000 tons (sold weight). The mine may continue to occasionally produce and sell up to 20% more material in any given year, for up to 1,200,000 tons (sold weight), so long as the running ten-year production average does not exceed 10,000,000 tons (sold weight).

The Project's proposed 20-year extension of the mining permit is supported by the existing Conditions of Approval No. 6 of the Existing Entitlements, which states:

6. *The Mining Permit is approved for a period not to exceed thirty years, starting from the date that mining begins. The operator shall certify in writing that mining has commenced. Written notification shall be received by the County within three days of mining commencement. If notification has not been received by the County within one year of permit approval, then this Mining Permit and its accompanying entitlements shall be null and void.*

If permitted aggregate reserves are still available at the end of the approved thirty-year period, the operator may apply to renew the permit. The extension may not exceed an additional period of twenty years and shall be subject to appropriate environmental review.

The Project's overall mining footprint is substantially the same as that which was approved under Existing Entitlements (see Sheet 1). Within this footprint, the remaining sand and gravel reserves are of sufficient quantity to support a 20-year extension.

The Project is designed to be consistent with the Yolo County Off-Channel Mining Plan ("OCMP") including its Off-Channel Surface Mining Ordinance ("OCSMO") and Surface Mining Reclamation Ordinance ("SMRO").

3.2 Basic Project Objectives

The Project's basic objectives include the following:

1. To continue extraction of sand and gravel resources for the processing and sale of aggregate products into the year 2047.
2. To maximize the extraction of the remaining available sand and gravel resources located within the currently permitted mining footprint.
3. To continue to supply an economic and reliable source of construction materials to the Yolo County market, leveraging the existing aggregate processing facility, conveyor system and associated infrastructure.
4. To reconfigure and sequence mining phases to allow the existing electric dredge to efficiently move between mining phases without the need to disassemble and reassemble the dredge equipment.
5. To repurpose the existing Phase 2 area as an extension of the existing processing plant site for purposes of product stockpiling.
6. To implement the proposed reclamation plan to establish end uses of agriculture, permanent lakes, and wildlife habitat in accordance with the Surface Mining and Reclamation Act (PRC 2710, et seq.).
7. To continue to employ approximately 15 mining and processing personnel at the site.

3.3 Project Justification

The Project is an extension and modification of an approved project. The Project is consistent with the State Legislature and County's recognition that the extraction of minerals is essential to the continued economic well-being of the State, County and to the needs of society (as codified in PRC §2711(a) and OCSMO §10-4.103). As published in the California Department of Conservation's "Map Sheet 52, Aggregate Sustainability in California" (2012), aggregate construction materials are essential to modern society, both to maintain the existing infrastructure and to provide for new construction. Specific to the Sacramento-Fairfield production consumption region, within which Yolo County lies, the State projected that only 11 to 20 years of permitted aggregate supply remains to meet a projected 50-year aggregate demand of 196 million tons (*ibid*).

The Cache Creek Mine is a regionally important source of high quality construction aggregate material that has helped serve the building and infrastructure needs of Yolo County and the Sacramento-Fairfield production consumption region for over 40 years. The State Department of Conservation has identified the Project site as being in the MRZ-2 zone, meaning that significant mineral deposits are present or that a high likelihood for their presence exists.

This Project will ensure the continued supply of much-needed source of construction materials and associated jobs for the region while providing for current reclamation standards to be

achieved. Further, maintaining a local source of construction materials will minimize the economic and environmental costs (e.g., increased construction cost, fuel consumption, greenhouse gas emissions, and traffic congestion) associated with transporting aggregate from distant sources. In addition, promoting the continued use of the existing electric dredge in an efficient manner is environmentally superior to the former wet-excavation method of using a diesel-powered dragline.

The Project is consistent with the existing zoning and General Plan designations for the site and includes a reclamation plan to return mined lands to a useable condition that includes agriculture, permanent lakes, and wildlife habitat. For the foregoing reasons, and others, the Project is justified.

4.0 REQUESTED COUNTY ENTITLEMENTS

CEMEX anticipates needing to obtain the following Yolo County entitlements for the Project:

- An amendment to **Mining Permit No. ZF #95-093** to allow surface mining to continue on 489± acres for a period of up to 30 years, with a maximum annual production of 1,000,000 tons sold per year, which could be exceeded by up to 20 percent in any one year to meet market demand pursuant to Section 10-4.405 of the County Code.
- An amendment to **Reclamation Plan No. ZF #95-093** to reclaim 838± acres of mined lands to a useable condition that includes agriculture, permanent lakes, and wildlife habitat, through adopted of a Revised Reclamation Plan.
- An amendment to **Development Agreement No. 96-287** to reflect the revised mining and reclamation plans and net gains.

The County will determine if additional entitlements are necessary.

5.0 OFF-CHANNEL SURFACE MINING ORDINANCE APPLICATION CONTENTS

This section addresses the requirements of the OCSMO, Article 5, Surface Mining Permit Approval Process, Section 10-4.502, Application Contents.

5.1 Narrative Description of the Proposed Surface Mining Operations [OCSMO §10-4.502(a)]

The Project is an extension and modification of an approved project. Except as previously described in this narrative, CEMEX proposes no change to any fundamental element of the existing operation (e.g., mining methods, maximum depth of mining, processing operations, use of settling ponds to contain and settle aggregate wash fines, production limits, water use, power use, truck traffic, or hours of operation).

The following provides a brief description of the proposed continuation of surface mining operations, including mining methods currently employed at the site and the anticipated sequence of mining.

Mining Methods

The Mine is planned to be further developed and ultimately reclaimed in seven (7) phases, the first two of which have already been mined but not fully reclaimed. Except where mining has already occurred, mining operations will be initiated by the removal of vegetation, topsoil/growth media, and overburden materials that lie above marketable sand and gravel deposits. The overlying materials will be removed using scrapers aided by a motor grader and bulldozer, or excavator and off-road haul trucks as needed. After overlying materials are removed, marketable sand and gravel will be excavated using conventional mining equipment such as scrapers, excavators, and bulldozers (for dry mining) and electric dredge (for wet mining). Following excavation, the sand and gravel will be transported primarily by electric conveyor to the existing aggregate processing plant for washing, crushing, sorting and sale.

Anticipated Sequence of Mining

Mining will continue to progress in a manner that will allow for concurrent reclamation to be initiated at the earliest possible time on those portions of the mined lands that will not be subject to further surface mining disturbances. No further mining is planned to occur in Phases 1 and 2. Phase 1 is partially reclaimed with a large portion already back in active agricultural production. The remainder of Phase 1 is in the process of reclamation. Phase 2 has been repurposed as an extension of the aggregate processing plant site for purposes of product stockpiling and will be reclaimed along with the rest of the plant site at the end of Mine life.

The Operator currently anticipates that mining will continue to progress in the following general sequence: Phase 3 / Phase 4 (to be mined concurrently), Phase 5, Phase 6, and Phase 7. Once fully mined, Phase 3 will be repurposed as a silt pond to accept wash fines from the aggregate production process, ultimately facilitating a reclamation backfill to agriculture. After Phase 6 is mined, the Operator will perform limited additional mining in Phase 5 to develop a small habitat island as part of reclamation (see Revised Reclamation Plan Sheet R-06 for detail).

Final reclamation, consisting of finish slope reclamation, revegetation and equipment removal will generally commence as soon as final excavation grades are achieved. An estimated time schedule for mining and reclamation is provided in Table 1 of the Revised Reclamation Plan.

5.1.1 Consistency of the Proposed Surface Mining Operations With the OCSMO, General Plan, Zoning, and Applicable Specific Plans [OCSMO §10-4.502(a)(1)]

The Project site's General Plan and Zoning designations are identified in Table 1, above. The General Plan designation of Agriculture supports surface mining (see General Plan Policy LU-1.1 at page LU-14) and all areas proposed for mining have this designation. The portions of the site

that carry the Open Space designation apply to the portions of the parcels associated with Cache Creek. Further, the General Plan supports the continuation of mining through the following policies:

Policy ED-1.2 Support the continued operation of existing aggregate mining activities within the county as well as new aggregate mining in appropriate areas, to meet the long-range construction needs of the region.

Policy ED-1.8 Retain and encourage growth in important economic export sectors, including mining, natural gas, tourism and manufacturing.

Surface mining is allowed in the A-N zone with approval of a Major Use Permit for lands that are in the OCMP area on lands within the mineral resources overlay zone (see Yolo County Code, Title 8, §8-2.304 and §8-2.306(t)). The Project site is within this area and carries a mineral resource zone “SG” (sand and gravel) overlay.

The Project’s consistency with the OCSMO is detailed in Table 2, below. Other than the County General Plan and the County CCAP, which is implemented through the OCMP and CCRMP and their respective ordinances, the Applicant is not aware of any other Specific Plan applicable to the Project.

**TABLE 2
OCSMO CONSISTENCY MATRIX**

OCSMO Off-Channel Mining Standard	Project Consistency
10-4.401. Scope.	Consistent. The Project is designed to ensure that the public health and safety and environment are protected. This table briefly addresses consistency with each of the standards in this chapter. See the Revised Reclamation Plan for additional details. CEMEX anticipates that the County will adopt conditions of approval as appropriate.
10-4.402. Access roads.	Consistent. No change. The first 100 feet of access road from CA Highway 16 is paved and traffic patterns are well established.
10-4.403. Accident reporting.	Consistent. CEMEX will continue to follow the approved emergency plans on file with the County and take the appropriate measures for reporting any incidents to the County.
10-4.404. Aesthetics.	Consistent. As part of earlier phases of the existing Habitat Restoration Plan (Zentner, 1995), a visual tree screen consisting of Fremont cottonwood species was installed along I-505. The tree screen was successful, but over time gaps have formed where trees have fallen. Additional trees are

OCSMO Off-Channel Mining Standard	Project Consistency
	proposed to be installed to fill-in these gaps as part of the updated Habitat Restoration Plan included as an appendix to the Revised Reclamation Plan. Otherwise, the mine is sufficiently setback from public rights-of-way such that visual screening is not required. No changes to existing facilities (e.g., aggregate processing plants) are proposed.
10-4.405. Annual production limits.	Consistent. No change. See Section 5.1.6 for detail.
10-4.406. Benches.	Consistent. No change. Benches are not proposed for reclaimed slopes. CEMEX will continue to comply with MSHA requirements related to safe excavation in temporary (interim) cut slopes and will continue to facilitate MSHA inspections at the site. Vertical cut slopes in excess of four feet for development of special habitats are not proposed.
10-4.407. Conveyor systems.	Consistent. No change. The existing electric conveyor system will continue to be used to transport mined materials to the plant site for processing.
10-4.408. County road improvements.	Consistent. No change / not applicable. Transportation to and from the site occurs via California Hwy 16, which is not a County roadway. As required by Condition #67 of the current Mining Permit, the former operator submitted a check for \$1,200 to the City of Woodland in 1998 to cover its fair share of construction of left-turn lanes on each approach, and the installation of a traffic signal, at the SR 16 / County Road 98 / Main Street intersection.
10-4.409. County road maintenance.	Consistent. No change / not applicable. Transportation to and from the site occurs via California Hwy 16, which is not a County roadway.
10-4.410. Cultural resources.	Consistent. No change. As required by Condition #74 of the current Mining Permit, on-site cultural resources were mapped in 1997, catalogued and removed from the site in 2002. No other known cultural resources constraints exist in area to be mined. CEMEX will continue to comply with the requirements of its existing conditions of approval relating to unanticipated discoveries.
10-4.411. Dam requirements.	Consistent. No change. No dams are proposed.
10-4.412. Dewatering prohibition.	Consistent. No change. No dewatering is proposed.

OCSMO Off-Channel Mining Standard	Project Consistency
10-4.413. Drainage.	Consistent. See Revised Reclamation Plan at Section 2.6.2 for a discussion of drainage. See also Revised Reclamation Plan Sheets M-02, M-05 through M-09, R-02, and R-04 through R-07 for drainage detail.
10-4.414. Dust control.	Consistent. No change. CEMEX will continue to employ current dust control practices consistent with this section. A water truck is on-site at all times during operation to wet stockpiles and disturbed surfaces as needed.
10-4.415. Equipment maintenance.	Consistent. No change. Except for the existing dredge, equipment maintenance occurs at the shop at the processing plant facility. No fueling occurs within 100 feet of open water bodies. Vehicles do not idle for more than five minutes.
10-4.416. Flood protection.	Consistent. No change. Off-channel operations already have 100-year flood protection. At the County's request, Cunningham Engineering verified compliance with this requirement and summarized its findings in a report titled, "Cache Creek: Hydraulic Analysis of the Cemex Reach" (March 10, 2016), which was provided to the County and is included as an appendix to the Revised Reclamation Plan. This analysis was reviewed and confirmed by the TAC Hydrologist prior to the filing of this application.
10-4.417. Groundwater monitoring programs.	Consistent. An updated groundwater monitoring program is found in Section 2 of the Groundwater Assessment (Luhdorff & Scalmanini, 2018) included as an appendix to the Revised Reclamation Plan. Luhdorff & Scalmanini also concluded that the proposed Project is not expected to result in any adverse effects on groundwater levels or quality.
10-4.418. Habitat management plan compliance.	Consistent. No change. Mining impacts were previously analyzed in the 1996 EIR with mitigation measures that were adopted as conditions of approval. In addition, the Revised Reclamation Plan includes an updated Habitat Restoration Plan that complies with SMARA, the OCSMO and the SMRO.
10-4.419. Haul roads.	Consistent. No change / not applicable. Transportation to and from the site occurs via California Hwy 16, which is not a County roadway.
10-4.420. Lighting.	Consistent. No change to processing facilities or operations is proposed.

OCSMO Off-Channel Mining Standard	Project Consistency
10-4.421. Noise: General standard.	Consistent. No change to any noise generating activity is proposed and CEMEX is not aware of any noise complaints. Noise analyses evaluated in the 1996 project EIR determined that mining activities are consistent with these noise standards.
10-4.422. Noise: Sonic safety devices.	Consistent. No mining currently occurs within 1,500 feet of a residence. CEMEX will retrofit its equipment with non-sonic warning devices prior to mining during nighttime hours within 1,500 feet of the residence to the east of Phase 6.
10-4.423. Noise: Traffic.	Consistent. No change to any noise generating activity is proposed. Noise analyses evaluated in the 1996 project EIR determined that mining activities are consistent with these noise standards.
10-4.424. Other agency approvals.	Consistent. If required following review of this Project pursuant to CEQA, then CEMEX will obtain and provide the County with copies of any other agency approvals.
10-4.425. Parking.	Consistent. No change. Parking spaces are provided at the processing plant site.
10-4.426. Permit life.	Consistent. This Project proposes a 20 year extension of existing entitlements to allow mining to continue into 2047.
10-4.427. Protection of nearby drinking water wells.	Consistent. CEMEX will comply with the updated groundwater monitoring program in Section 2 of the Groundwater Assessment (Luhdorff & Scalmanini, 2018) included as an appendix to the Revised Reclamation Plan.
10-4.428. Sanitary facilities	Consistent. No change. Portable toilets and the septic system will continue to be regularly maintained by qualified professionals.
10-4.429. Setbacks.	Consistent. No new processing plants are proposed. Phase 2 is proposed to be repurposed as an extension of the processing plant site for purposes of product stockpiling; however, a tree screen exists along I-505 and is proposed to be improved as part of the updated Habitat Restoration Plan included as an appendix to the Revised Reclamation Plan. No new stockpiles are proposed to be placed within 1,000 feet any residences. No substantial change in the proximity of mining to existing residences, such as the residence to the east of Phase 6, is proposed.

OCSMO Off-Channel Mining Standard	Project Consistency
	Mining is already approved to occur to a 200-foot minimum setback from Cache Creek. No change to this 200-foot setback criteria is proposed. The future permanent lake (to be reclaimed) in Phase 6 is setback greater than 150 feet from private dwellings. No mining is proposed to occur within 2,000 feet of the community boundary of Madison or Woodland.
10-4.430. Site maintenance.	Consistent. No change. The site will continue to be maintained free of unsightly and hazardous debris. The County will continue to inspect the facility at least once per year as part of its lead agency duties under SMARA and has the opportunity to observe site maintenance conditions during these inspections.
10-4.431. Slopes.	Consistent. All banks above groundwater level are proposed to be sloped no steeper than 2H:1V and all slopes below the groundwater level are proposed to be sloped no steeper than 1H:1V (see Revised Reclamation Plan Sheets M-06 through M-16). A Slope Stability Evaluation (Geocon, 2018) is included as an appendix to the Revised Reclamation Plan.
10-4.432. Soil removal.	Consistent. No change. Soil will continue to be cut in maximum depths in order to minimize traffic and limit compaction. Topsoil handling will continue to occur when soil is dry.
10-4.433. Soil stockpiles.	Consistent. CEMEX recently surveyed the height of its tallest soil and overburden stockpiles (south of Phases 3 and 4) to ensure consistency with these requirements. Zentner has provided recommendations for seeding current topsoil and overburden stockpiles (which were provided to the County) and these recommendations will continue to be followed for future operations. For long-term storage, slopes on stockpiled soils will be graded to 2H:1V to prevent use by bank swallows. The County will continue to inspect the facility at least once per year as part of its lead agency duties under SMARA and can observe stockpile practices.
10-4.434. Technical report recommendations.	Consistent. The technical reports appended to the Revised Reclamation Plan were prepared in accordance with SMARA, the OCSMO and the SMRO. Technical report recommendations (e.g., Zentner's

OCSMO Off-Channel Mining Standard	Project Consistency
	recommendations for substrate preparation, revegetation, and drainage to riparian depressions) have been incorporated into the Revised Reclamation Plan and project design. The County may impose conditions of approval as appropriate.
10-4.435. Transfer of allocation.	Consistent. Acknowledged.
10-4.436. Vegetation protection.	Consistent. No change. CEMEX will continue to comply with the recommendations of its biologist (Zentner) and follow its updated Habitat Restoration Plan included as an appendix to the Revised Reclamation Plan. Sensitive species, such as protected trees, will continue to be fenced for protection / preservation.
10-4.437. Wastewater discharge.	Consistent. No change to processing operations is proposed and no wastewater is discharged to Cache Creek. CEMEX will continue to comply with its existing Waste Discharge Requirements Order No. R5-2003-0113 as may be amended in the future. Sediment fines generated by aggregate processing are placed in settling ponds and support reclamation to an end use of agriculture (see Section 2.6.2 of the Revised Reclamation Plan for detail).
10-4.438. Watercraft.	Consistent. No change. With the exception of the existing dredge, no motorized watercraft are allowed on the lakes.
10-4.439. Wetlands.	Consistent. No wetlands have been identified or mapped.
10-4.440. Wildlife habitat.	Consistent. Avoidance practices to protect wildlife habitat and species are in place - see the Biological Resources Update included as an appendix to the Revised Reclamation Plan. Proposed habitat enhancements are discussed in the Revised Reclamation Plan, including its Habitat Restoration Plan appendix.
10-4.441. Exceptions.	Consistent. No exceptions are currently proposed or believed to be necessary.

5.1.2 Waste Disposal and Contamination Control [§10-4.502(a)(2)]

The Project is an extension and modification of an approved project. CEMEX proposes no change to waste disposal or contamination control practices. Consistent with current operations, CEMEX will continue to manage and dispose of wastes generated by the surface mining operation in the following manner:

1. **Refuse:** incidental refuse or garbage (minimal amounts) is hauled off-site by professional contractors and disposed of in accordance with local and state standards.
2. **Mine waste rock (overburden):** overburden that cannot be sold as product is used in reclamation.
3. **Sewage:** Portable toilets are provided for employee use and are serviced by professionals. An existing septic systems services the plant office and is periodically serviced by qualified professionals.
4. **Used oil / antifreeze:** The Cache Creek Mine is a small generator of waste. Maintenance of mobile equipment is generally performed by the equipment manufacturer (e.g., Caterpillar) and occurs at the existing processing plant site shop or off-site. Used petroleum products and antifreeze are managed in accordance with applicable regulations, and is picked up by approved haulers for recycling and/or disposal.
5. **Water:** Water used in processing operations is recycled to the extent feasible to minimize the need for make-up water. CEMEX also takes advantage of storm water that collects in open water ponds for use in dust control. CEMEX supplies its make-up water from on-site groundwater production wells.

5.1.3 Surface Water Drainage and Erosion Control; 100-Year Flood Protection [§10-4.502(a)(3)]

Please see the Revised Reclamation Plan at Section 2.6, Hydrology and Water Quality.

5.1.4 Hours of Operation and Nighttime Operations [§10-4.502(a)(4)]

The Project is an extension and modification of an approved project. The Existing Entitlements do not impose any restrictions on hours of operation and CEMEX proposes no change to hours of operation. CEMEX operates the facility up to 24 hours per day as needed to meet market and customer demands.

5.1.5 Soil Test Borings, Soil Quality, and Slope Stability [§10-4.502(a)(5)]

Please refer to the Slope Stability Evaluation (Geocon, 2018) included as an appendix to the Revised Reclamation Plan.

5.1.6 Anticipated Quantity and Type of Materials; Estimated Maximum Annual Production [§10-4.502(a)(6)]

CEMEX anticipates that 30,000,000 tons of sand and gravel (sold weight) and 34,483,000 million tons of sand and gravel (mined weight) will be produced, assuming a 13% wash loss at the aggregate processing plant (that will be directed to settling ponds).³

The Project is an extension and modification of an approved project and CEMEX proposes no change to production rates. Annual maximum production is estimated at 1,000,000 tons (sold weight) and 1,149,000 tons (mined weight) over a 10-year average assuming a 13% wash loss at the aggregate processing plant. The Mine may occasionally produce and sell up to 20% more material in any given year, for up to 1,200,000 tons (sold weight) and 1,379,000 tons (mined weight), so long as the running ten-year production average does not exceed 10,000,000 tons (sold weight).

5.1.7 Summary Phasing Table [§10-4.502(a)(7)]

Phasing is summarized in Table 3, below. This table shows only proposed mining, so no mining activity is shown for Phase 1, Phase 2, or the Plant site.

TABLE 3
SUMMARY PHASING TABLE

Disturbance Area	Acres Mined	Approx. Production Tons Sold	Approx. Production Tons Mined	Mining Duration (years)	Reclaimed End Uses	Acres of Reclaimed End Uses	Estimated Reclamation Duration (years)
Plant Site	--	--	--	--	Agriculture	25	3-5
Phase 1	--	--	--	--	Agriculture	131	3-5
Phase 2	--	--	--	--	Agriculture	64	3-5
Phase 3	67	2,500,000	2,874,000	~2.5	Agriculture	76	3-5
Phase 4	137	4,500,000	5,172,000	~4.5	Agriculture	143	3-5
Phase 5	134	11,100,000	12,759,000	~11	Permanent Lake, Wildlife Habitat	146	3-5
Phase 6	136	11,500,000	13,218,000	~11.5	Permanent Lake, Wildlife Habitat	147	3-5
Phase 7	15	400,000	460,000	~0.5	Agriculture	22	3-5
Remainder	--	--	--	--	Wildlife Habitat	84	3-5
Total	489	30,000,000	34,483,000	30		838	

Notes:

1. All acreages are approximate.
2. Anticipated mining schedule assumes annual production of approximately 1,000,000 tons per year (sold weight).

³ Mined weight = sold weight / (100% - 13% Wash loss)

3. Anticipated progression is approximate only. Actual timelines will vary depending on market and geologic conditions.
4. Final reclamation may occur three to five years after anticipated progression of mining and reclamation (e.g., to allow reclamation performance standards to be met).

CEMEX is not aware of any active Williamson Act contracts.

5.2 Site Specific Technical Reports [OCSMO §10-4.502(b)]

The Project is an extension and modification of an approved project. The following technical reports have been prepared in support of this application (as appendices to the Revised Reclamation Plan):

- Appendix A Biological Resources Update (Zentner Planning & Ecology, 2018)
- Appendix B Hydraulic Analysis of the Cemex Reach (Cunningham Engineering, 2016)
- Appendix C Groundwater Assessment for Mining Permit and Reclamation Plan Amendment (Luhdorff & Scalmanini, 2018)
- Appendix D Estimation of Average High Groundwater Levels (Luhdorff & Scalmanini, 2016)
- Appendix E Estimation of Average Low Groundwater Levels (Luhdorff & Scalmanini, 2017)
- Appendix F Slope Stability Evaluation (Geocon, 2018)
- Appendix G Letter Recommendation for Drainage to Riparian Depressions (Zentner Planning & Ecology, 2018)
- Appendix H Habitat Restoration Plan (Zentner Planning & Ecology, 2018)

Noise, traffic, and cultural resources were previously studied and analyzed as part of Solano’s long-term mining permit application, which ultimately formed the basis for the overall footprint of the existing Cache Creek mine and Existing Entitlements. Those studies were evaluated in the EIR (BASELINE, 1996) that tiered off of the program-level EIRs for the OCOMP and CCRMP. Since then, the County has performed additional studies, such as “*A Cultural Resources Study for the Cache Creek Resources Management Plan*” (Origer, 2014) that may be referenced later as needed. Except as previously described in this narrative, CEMEX proposes no change to any fundamental element of the existing operation (e.g., mining methods, maximum depth of mining, processing operations, use of settling ponds to contain and settle aggregate wash fines, production limits, water use, power use, truck traffic, or hours of operation). Given that the Project does not propose any fundamental changes affecting noise, traffic, and cultural environmental resource areas, updates to these studies are believed to be unnecessary.

5.3 Site Plan, Cross-Sections and Survey Requirements [OCSMO §10-4.502(c)-(f)]

See Revised Reclamation Plan, Sheets M-01 through M-15, and Sheets R-01 through R-15.

5.4 Initial Environmental Assessment [OCSMO §10-4.502(g)]

Please refer to the Applicant's Draft Initial Study included with this application.

5.5 Other Applicable Discretionary Permits [OCSMO §10-4.502(h)]

CEMEX is not aware of any other applicable discretionary permits required by other public agencies to carry out mining and reclamation in the manner set forth in the Revised Reclamation Plan.

5.6 Proposal for "Net Gain" [OCSMO §10-4.502(i)]

CEMEX proposes the following "net gains" in accordance with OCSMO Section 10-4.502(i), OCMP Action 7.4-1, and CCRMP Action 5.4-1:

1. Fee dedication of the two permanent lakes in Phases 5 and 6 with northerly frontage to the centerline of Cache Creek.
2. Easement dedication of a 40-foot right-of-way in favor of the County for purposes of unlimited public access from Highway 16, north to the dedicated property, as depicted on Revised Reclamation Plan Sheet R-03.
3. Implementation of the updated Habitat Restoration Plan included as an appendix to the Revised Reclamation Plan. For areas not dedicated to the County as set forth above, habitat restoration will be maintained by the landowner.

With the following time table for implementation of these net gains:

4. Fee dedication for Item 1 and easement dedication for Item 2 to occur simultaneously with the County's return of the financial assurances bond for Phase 6 reclamation.

This offer of "net gain" is generally consistent with that which was offered and adopted under existing entitlements, as was specifically memorialized in "Recital V" and Section 2.2.8 of the Development Agreement No. 96-287.

5.7 Application Forms [OCSMO §10-4.502(j)]

Please see the enclosed application forms completed for "Extension or Modification of an Approved Project."

6.0 SURFACE MINING RECLAMATION ORDINANCE APPLICATION CONTENTS

This section addresses the requirements of the SMRO, Article 6, Reclamation Plan Approval Process, Section 10-5.601, Application Contents.

6.1 Reclamation Plan [SMRO §10-5.601(a)-(h)]

Please see the Revised Reclamation Plan, which addresses the substantive requirements of SMRO §10-5.601(a)-(h).

6.1.1 Consistency of the Proposed Reclaimed Use With the SMRO, General Plan, Zoning, and Applicable Specific Plans [SMRO §10-5.601(a)(1)]

The Project General Plan, Zoning and Specific Plan consistency are addressed in Section 5.1.1, above. The planned reclamation end uses of agriculture, permanent lakes, and wildlife habitat are compatible with the General Plan and Zoning designations for the site.

The Project’s consistency with the SMRO is detailed in Table 4, below.

**TABLE 4
SMRO CONSISTENCY MATRIX**

SMRO Performance Standard	Project Consistency
10-5.501. Scope.	Consistent. The Revised Reclamation Plan will return the site to end uses of agriculture, permanent lake, and wildlife habitat, which are consistent with the General Plan and Zoning designations for the site. Consistency with specific performance standards are set forth below, and described in more detail in the Revised Reclamation Plan.
10-5.502. Aesthetics.	Consistent. The Revised Reclamation Plan includes an updated Habitat Restoration Plan that promotes aesthetic quality for reclaimed conditions.
10-5.503. Backfilled excavations: groundwater flow impacts.	Consistent. No change (increase) in mining depth or reclamation backfill depths are proposed. Consistent with existing entitlements, the Revised Reclamation Plan proposes backfills for the purpose of reclaiming portions of the mine to agriculture, which is a high priority mine reclamation end use in the CCAP. Luhdorff & Scalmanini concluded the Project would not adversely impact off-site wells (see the groundwater assessment included as an appendix to the Revised Reclamation Plan).
10-5.504. Backfilled excavations: Improvements.	Consistent. No change. No new improvements are proposed to be constructed in reclaimed mining pits.

SMRO Performance Standard	Project Consistency
10-5.505. Backfilled excavations: Inspections.	Consistent. Acknowledged.
10-5.506. Bank stabilization maintenance.	Consistent. No change. No new bank stabilization features are proposed as part of the Project. CEMEX will continue to update its Financial Assurance Cost Estimate on an annual basis and submit it to the County for review and approval. CEMEX will also continue to have an annual inspection conducted by a Registered Civil Engineer as a component of its Annual Report pursuant to OCSMO §10-4.701 and SMRO §10-5.1205.
10-5.507. Drainage.	Consistent. The Revised Reclamation Plan provides for drainage to minimize erosion and convey runoff from reclaimed mining areas to natural outlets and interior basins (see Plan at Section 2.6.2). See also Revised Reclamation Plan Sheets R-02, and R-04 through R-07 for drainage detail.
10-5.508. Erosion control.	Consistent. No substantial change to current practices. Reclamation timing and revegetation practices are described in the Revised Reclamation Plan.
10-5.509. Fence row habitat.	Consistent. The Revised Reclamation Plan provides for ground cover along the margins of reclaimed agricultural fields (see Plan at Section 2.9).
10-5.510. Fencing.	Consistent. Fencing is in place around the perimeter of mining areas and will be expanded in the future as needed. See Revised Reclamation Plan Sheets R-04 through R-07 for fence locations.
10-5.511. Field drainage.	Consistent. Reclaimed agricultural surfaces are designed for positive drainage. See Revised Reclamation Plan Sheets R-04 through R-07.
10-5.512. Field releveling.	Consistent. No change. Acknowledged.
10-5.513. Floodplain development.	Consistent. The Project proposes no new development in the floodplain.
10-5.514. Habitat management plan compliance.	Consistent. The Revised Reclamation Plan includes an updated Habitat Restoration Plan that complies with SMARA, the OCSMO and the SMRO.
10-5.515. Habitat plan referral.	Consistent. Acknowledged. The updated Habitat Restoration Plan can be presented to agencies for review as part of the Project CEQA process.

SMRO Performance Standard	Project Consistency
10-5.516. Lowered elevations for reclaimed agricultural fields.	Consistent. Reclaimed agricultural surfaces are designed to be at least five feet above average high groundwater. See Revised Reclamation Plan Sheets R-04 through R-07.
10-5.517. Mercury bioaccumulation in wildlife.	Consistent. No change. Permanent lake end uses were approved under existing entitlements and were fully analyzed in the 1996 EIR.
10-5.518. Mining in reclaimed lands.	Consistent. Acknowledged. Once reclamation is complete, no further mining will occur without approval of an amendment to the mining permit and reclamation plan.
10-5.519. Motorized watercraft prohibition.	Consistent. No change. With the exception of the existing dredge, no motorized watercraft are allowed on the lakes.
10-5.520. Operational areas.	Consistent. Operational areas and haul roads that are not required to facilitate future end uses will be reclaimed as set forth in the Revised Reclamation Plan. See, for example, Plan Section 2.2.2.
10-5.521. Permanent stockpiles.	Consistent. Mine waste and overburden stockpiles will be removed as described in the Revised Reclamation Plan at Section 2.6.3.
10-5.522. Phasing plans.	Consistent. Consistent with existing entitlements, the Revised Reclamation Plan proposes the mine to be developed and reclaimed in seven phases (see, for example, Sheet R-03).
10-5.523. Planting plans.	Consistent. An updated Habitat Restoration Plan prepared by a qualified biologist is included as an appendix to the Revised Reclamation Plan.
10-5.524. Post-reclamation groundwater monitoring.	Consistent. No change. CEMEX anticipates that the County will maintain and/or adopt conditions of approval as appropriate.
10-5.525. Prime farmland conversion.	Consistent. The Revised Reclamation Plan maximizes the acreage to be reclaimed to agriculture, while adhering to the requirement of SMRO 10-5.516. Potential impacts to prime farmlands will be evaluated in the Project CEQA document. If needed, CEMEX anticipates that the County will adopt mitigation measures and conditions of approval as appropriate.
10-5.526. Repair of damage due to natural disaster.	Consistent. No change. CEMEX will continue to update its Financial Assurance Cost Estimate on an

SMRO Performance Standard	Project Consistency
	annual basis and submit it to the County for review and approval.
10-5.527. Recreational and habitat uses of permanent wet pits.	Consistent. The updated Habitat Restoration Plan included as part of the Revised Reclamation Plan accounts for groundwater fluctuations in permanent wet pits.
10-5.528. Sewage storage prohibition.	Consistent. No change. The Project does not propose to use wet pits for storage and treatment of sewage effluent or for landfill purposes.
10-5.529. Shallow depths.	Consistent. The updated Habitat Restoration Plan included as part of the Revised Reclamation Plan provides for habitat restoration around the shoreline of the permanent lakes.
10-5.530. Slopes.	Consistent. Final reclaimed slopes have been evaluated in the Slope Stability Evaluation (Geocon, 2018) included as an appendix to the Revised Reclamation Plan. Final slope angles have an adequate factor of safety for the proposed end uses.
10-5.531. Soil ripping.	Consistent. The requirement for ripping A- and B-horizon soils to a depth of three feet is included in the Revised Reclamation Plan at Section 2.8 (Resoiling).
10-5.532. Use of overburden and fine sediments in reclamation.	Consistent. No change. The Project does not propose to use sediment fines associated with processing for backfill or reclamation of permanent lakes. Aggregate process wash fines will continue to be pumped to settling ponds, which will ultimately be reclaimed to agriculture end uses.
10-5.533. Wetland habitat.	Consistent. The Revised Reclamation Plan provides for permanent lakes with scalloped basin perimeters, grassland margin habitat, and an island (in Phase 5). See Revised Reclamation Plan Sheets R-03 and R-06
10-5.534. Exceptions.	Consistent. No exceptions are currently proposed or believed to be necessary.

6.2 Initial Environmental Assessment [SMRO §10-5.601(i)]

Please refer to the Applicant’s Draft Initial Study included with this application.

6.3 Other Applicable Discretionary Permits [SMRO §10-5.601(j)]

CEMEX is not aware of any other applicable discretionary permits required by other public agencies to carry out mining and reclamation in the manner set forth in the Revised Reclamation Plan.