

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT, ARIZONA  
LOWER SONORAN FIELD OFFICE

EA#: DOI-BLM-AZ-P020-2010-0016-EA

Proponent: Cemex Construction Materials

Project Name: Cemex Coolidge Plant Mineral Materials Sale

BLM Contact Person: Karen Conrath, Geologist

Cemex Construction Materials Contact Person: William R. Peck

**Legal Description and location:** The Proposed Action would occur on approximately 100 acres of split estate lands located in T. 5 S., R.8 E., S ½ NW, N ½ SW of section 12, about 2 ½ miles northeast of Coolidge, Pinal County, Arizona. The area is accessed via Arizona State Highway 287 and Attaway Road.

## I. PURPOSE AND NEED

**Background:** Cemex Construction Materials has submitted an application requesting a mineral material contract for 200,000 cubic yards of sand and gravel to be extracted over the next five years in order to continue aggregate sand and gravel operations at their Attaway Road Facility, located northeast of Coolidge, Arizona. This existing operation is located on approximately 385 acres of private surface owned by Cemex Construction Materials, with underlying federal mineral estate located on the southwest quarter of the project area. The total split estate land is estimated at approximately 100 acres. Excavation will be in two adjacent pit areas, and will consist of five phases of mining. Pit slopes will vary from 3H:1V to 8H:1V, with final pit depth varying from 20 to 60 feet below ground surface (bgs). Average height of the active pit face is approximately 40 feet. Reclamation activities will be concurrent with mining activities as conditions allow. A reclamation plan is not required due to the private surface ownership lands, but a reclamation and erosion control plan has been submitted. Cemex anticipates mining operations to continue through 2036.

The site of the Proposed Action is located west of Attaway Road, north of State Highway 287, and south of the Gila River, just northeast of Coolidge, Pinal County, Arizona (see Figure 1). The existing site conditions indicate the ground surface is generally flat with elevations ranging from 1,405 to 1,447 feet above mean sea level (amsl). The surrounding land use is predominately agriculture, with residential development farther south and west of the proposed project. Surrounding vegetation is predominately Sonoran Desert Scrub environment.

The purpose of the action is to provide Cemex the opportunity to continue mineral material extraction at their existing operation. The need for the action is established by BLM's responsibility under the Federal Land Policy Management Act (FLPMA) and the Materials Act of July 31, 1947, commonly referred to as the Materials Act, to respond to submissions of Mineral

Material Contract Applications pursuant to the regulations at 43 CFR 3600. The decision to be made is whether or not to approve the mineral material sale.

This Environmental Assessment (EA) has been prepared pursuant to section 102(2)(C) of the National Environmental Policy Act (NEPA), and in accordance with 40 CFR 1508.9, to assess the potential environmental impacts of the proposed mineral material contract. Based on this evaluation of alternatives and potential impacts, the Bureau of Land Management (BLM) will make a decision determining whether or not to approve a plan of operations for the proposed project and issue a mineral materials contract.

**Conformance with Land Use Plan:** The Proposed Action is subject to the Lower Gila South RMP & EIS (1998). This Proposed Action conforms to the land use plan terms and conditions as required by 43 CFR §1610.5.

**Relationship to Statutes, Regulations or Other Plans or Policies:** The BLM decision only authorizes extraction of BLM minerals. Use of non-BLM land (e.g., private land, National Forest, State Trust land) is subject to the appropriate jurisdictional agency or private landowners' permission. The regulations at 43 CFR §3600.420(a)(6) require that Cemex Construction Materials conduct all operations in a manner that complies with all pertinent Federal and state laws. BLM's authorization of the Proposed Action would include the requirement that Cemex Construction Materials comply with the 43 CFR §3600 regulations.

## II. THE PROPOSED ACTION AND ALTERNATIVES

**Description of the Proposed Action:** The Proposed Action consists of extracting and processing up to 200,000 cubic yards (300,000 tons equivalent) of unconsolidated aggregate sand and gravel over a period of five years on split estate lands. The total proposed longterm disturbance is approximately 260 acres, 100 of which are held in split estate at the existing Coolidge Plant site. Currently, unconsolidated aggregate material is being removed above the groundwater level on private holdings. Evaluation of the current disturbance footprint is estimated at approximately 113 acres, which includes processing equipment, structures, and facilities for aggregate crushing and screening. According to the Plan of Operations submitted by Cemex, details of the processing area are as follows:

- Location of the plant and accompanying facilities are located south of the Gila River on the southeastern edge of the property (approximately 56 acres);
- Equipment and processing facilities are currently on-site and in place;
- The processing area is fenced or bermed at all locations with posted signage;
- Three water recycling ponds are located at the west side of the Plant Site, with water supplied by an on-site well;
- There are 100-foot setbacks from the property boundary;

- The base of the pit has an average depth of approximately 40 feet bgs; the floor is relatively level with steep active face walls where excavation occurs.

Unpaved roads provide access from the east via Attaway Road. Unpaved haul roads are located within the pit floor and follow the advancing pit wall face. The existing roads serving the pit are adequate to handle the traffic associated with the mining operation. No other alterations to the access roads are planned.

Thirty four acres of the property are located within “Waters of the United States”, requiring a Section 404 permit from the U.S. Army Corps of Engineers (USACE). The applicant has secured said permit, #944-1051-RWF, to discharge incidental fallback of dredged material during the course of excavations and to construct a rip-rap lined inlet for a drown-out structure. Other applicable permits for air, water, storm, and hazardous materials are already in place including:

- An Individual Pinal County Air Quality Permit;
- A Storm Water Pollution Prevention Plan (SWPPP); and
- A Spill Prevention, Control, and Countermeasures (SPCC) Plan.

Current site improvements consists of two crushing and screening facilities; a feeder with conveyor, a wash plant and water reclaim system, a ready-mix concrete batch plant, a hot-mix asphalt plant, metal maintenance shop, and concrete pads.

Under the Proposed Action no additional processing equipment would be added to the site. Fueling, equipment repairs and maintenance would be conducted onsite within existing facilities.

Surrounding area land use generally consists of agriculture, other operating aggregate mining and processing operations to the east and southwest, and open space dominated by the Gila River floodplain to the north. Post-aggregate mining use will consist of naturalized open space consistent with surrounding uses. Reclamation would return final topography of the site to closely match the natural channel features near the Gila River.

Naturalized open space is preserved along the southern edge of the property (approximately 35 acres), with an earthen berm dike along the northern boundary separating the mining operations and the natural topography.

**No Action Alternative:** The No Action alternative constitutes denial of the mineral material application associated with the Proposed Action, but would include the continued operation of the Attaway Road Facility. The proposed expansion of the aggregate mining operation would not occur on the 100 acre parcel held in federal mineral ownership.

### **III. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES**

#### **A. CRITICAL ELEMENTS NOT AFFECTED**

The following critical elements would not be affected by the Proposed Action or alternatives because they do not occur at the site of the Proposed Action or because of the nature of the

Proposed Action:

**1. Wildlife / Threatened and Endangered Species:** The Endangered Species Act of 1973 requires all Federal agencies to undertake programs for the conservation of endangered and threatened species, and prohibits from authorization, funding, or carrying out any action that would jeopardize a listed species or destroy or modify its "critical habitat".

The project area does not contain suitable habitat for threatened and endangered species, nor will species designated as such be affected as a result of the proposed action.

**2. Cultural Resources:** A cultural resources survey of the BLM mineral ownership area within the Cemex Coolidge Plant project area boundary was performed by Andrew L. Christenson of Biozone, Inc., Prescott, AZ, under BLM Cultural Resource Use Permit AZ-000371, September 19-21 and 28, 2009. Results of that survey identified five (5) separate cultural sites located on a portion of the split estate parcel. Based on the results of the survey, avoidance of this area is recommended, with construction of a fence to prohibit unauthorized access. No further avoidance and/or preservation measures were recommend unless disturbance of the identified sites occurs. If disturbance would need to occur, further testing of the sites for subsurface remains was also recommended. There are no plans by Cemex to mine or disturb this area. The proposed project will have no effect on the identified cultural resources. A standard Education/Discovery COA for cultural resource protection would be attached to the mineral material contract.

**3. Native American Religious Concerns:** Kyle Woodson and David Wright, archaeologists of the Gila River Indian Community Cultural Resource Management Program visited the project area on September 28, 2009. During the course of the survey, no concerns were identified that would have an effect on Native American religious concerns.

**4. Wild and Scenic Rivers:** No part of the Proposed Action impacts a Wild and Scenic River, a congressionally authorized study river, or water resources below, above, or on a stream tributary to a designated river, or congressionally authorized study river. The Proposed Action would have no effect on wild and scenic rivers.

**5. National Energy Policy:** The National Energy Policy requires an evaluation of access limitations to Federal lands in order to increase energy production. The Proposed Action is a not an energy exploration or development project and has no impact on potential oil and gas exploration and development, as the area is generally unsuitable for those actions. The Proposed Action would have no effect on National Energy Policy.

**6. Wetlands/Riparian Zones:** Wetlands are protected under the Clean Water Act and different criteria are used by agencies to classify wetlands to reflect variation in statutory protection and management objectives. No identified wetlands or riparian zones are within or near the proposed project area. The Proposed Action would have no effect on wetlands or riparian zones.

**7. Prime Farmland:** The proposed project is not located on land that is currently farmed or on land that could be farmed. The Proposed Action would have no effect on Prime Farmland.

**8. Environmental Justice:** EPA defines Environmental Justice as the fair treatment and

meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including a racial, ethnic, or a socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies. The site of the Proposed Action has no residential population in the immediate area. The Proposed Action would have no effect on Environmental Justice.

**9. Wilderness:** The Proposed Action is not located near or within a designated Wilderness Area. The closest wilderness area is the Table Top Wilderness, located within the Sonoran Desert National Monument, approximately 35 air miles southwest of the proposed project area. The Proposed Action would have no effect on wilderness.

**10. Floodplain:** Pinal County Flood Control District regulates unincorporated areas lying within the 100-year floodplain, to evaluate and control the risk of possible flood damage. The 100-year floodplain is defined as the area adjoining a watercourse that would be covered by water during a flood event having a 1 out of 100 chance of occurring in any given year. The project area is in and at the edge of the current floodplain and channel of the Gila River. A Storm Water Pollution Prevention Plan (SWPPP) issued by Pinal County is in place. Storm water drainage controls are established as part of the Site SWPPP. Specific erosion control measures include:

- Collection of storm water in the pit;
- Erosion control measures will comply with stipulations outlined in the Section 404 permit issued by the U.S. Army Corps of Engineers (USACE);
- The SWPPP will be followed in addition to site-specific best management practices.

The acreage on the north edge of the property that is subject to Section 404 of the Clean Water Act, will conform to the 404 permit stipulations, including final slope establishment during reclamation activities.

## **B. CRITICAL ELEMENTS POTENTIALLY AFFECTED**

The following Critical Elements are or could be affected by the Proposed Action. The potential impacts, and the mitigation measures to be used to reduce these impacts, are discussed below.

**1. Air Quality:** Although specific performance standards regarding air quality standards for mineral material sites are not specified in 43 CFR §3600 regulation standards, the regulations at 43 CFR §3601.6(b) state that “BLM’s policy is to protect public land resources and the environment and minimize damage to public health and safety during the exploration for and the removal of such minerals”. Due to the private surface ownership, air quality standards are defined in accordance with Arizona Revised Statutes (A.R.S) §49-480 and Pinal County Air Quality Control District Code of Regulations §3-1-040. An individual Pinal County Air Quality Permit regulating particulate emissions and establishing applicable limitations was issued November 2010, for a term of five years. The Attaway Road Facility is situated in an area classified as “attainment” for

all pollutants.

**Impacts of the Proposed Action:** Impacts of the Proposed Action on air quality would be from fugitive dust or equipment (rolling stock) emissions. Particulate matter emission limitations are set forth in the permit with compliance demonstration monitoring standards. Equipment emission control requirements include that all processing and conveying equipment in the crushing and screening plant, silt plant, and concrete batch plant be equipped with water spray bars adequate to comply with opacity limitations set forth in the permit. Baghouses will be used to capture emissions from the cement and fly ash silos and mixer truck loading from the concrete batch plant. Water trucks shall be used as necessary to control fugitive PM<sub>10</sub> emissions from the mining, crushing, and screening operations, and along the unpaved haul roads. All equipment would have current pollution controls as required by the EPA during manufacture. The Proposed Action would be conducted such that the standards set forth in the Pinal County Air Quality Control permit are met.

**Impacts of the No Action Alternative:** Under the No Action Alternative, monitoring and control of dust emissions of the Proposed Action would still occur. The Attway Road Facility would still be held to the specific provisions and acceptable emission limitations as described in the Pinal County Air Quality Control Permit.

**2. Wastes, Hazardous or Solid:** The affected environment for hazardous materials includes air, water, soil, and biological resources that may potentially be affected by an accidental release of hazardous materials during transportation to and from the project area, storage, and use in construction and operations. Sensitive areas for hazardous materials releases include areas adjacent to water bodies, above aquifers, and areas where humans or wildlife would be directly impacted.

BLM Instruction Memoranda WO-93-344 require that all National Environmental Policy Act (NEPA) documents list and describe any hazardous and/or extremely hazardous materials that would be produced, used, stored, transported, or disposed of as a result of a proposed project. Common industry practices for use of these materials and disposal of waste products are dictated by various Federal and State laws and regulations, and the BLM standard stipulations that accompany a mineral material contract.

In accordance with §3601.41(c) which states, for inclusion in a mining plan, “A description of measures you will take to prevent hazards to public health and safety and to minimize and mitigate environmental damage”, a Spill Prevention, Control, and Countermeasures (SPCC) Plan has been developed by Cemex Construction Materials for their Attaway Road Facility outlining protocol and contingency plans in the event a hazardous substance is released into the environment.

**Impacts of the Proposed Action:** Possible pollutants that could be released during mining activities would include diesel fuel, hydraulic fluid, and lubricants. These materials would be used during operational and processing activities, and for refueling and maintaining equipment and vehicles. None of the chemicals that would be used in facility operations meet the criteria for an acutely hazardous material/substance, or meet the quantities criteria per BLM Instruction Memorandum No. 93-344. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in amounts above threshold planning quantities would be produced, used, stored, transported,

or disposed of during operation of the facilities.

Solid waste (human waste, garbage, etc.) would be generated to a limited extent, during project operations. These would be removed to a landfill or water treatment facility as needed, and all would be removed prior to final reclamation.

These laws, regulations, standard contract stipulations, and contingency plans and emergency response resources are expected to adequately mitigate any potential hazardous or solid waste issues associated with the Proposed Action.

**Impacts of the No Action Alternative:** Under the No Action alternative, the contingency and emergency response and cleanup measures in place regarding hazardous and solid waste discharges, as outlined in the SPCC Plan, would remain in effect for the existing operations.

**3. Water Quality, Drinking or Ground:** Surface water or groundwater could be impacted under the Proposed Action. A Storm Water Pollution Prevention Plan (SWPPP) has been submitted to satisfy requirements of a Arizona Pollutant Discharge Elimination System (AZPDES) permit. The Attaway Road Facility holds a Multi-sector General Permit for storm water discharges for sand and gravel facilities, which is regulated by the Arizona Department of Environmental Quality (ADEQ). Water is delivered to the plant site via an on-site well. According to the Arizona Department of Water Resources, (ADWR), 2005, the groundwater level is located 92 feet below ground surface, or approximately 1,335 feet above mean sea level (amsl). Annual precipitation is approximately 11 ½ inches for Pinal County, with 39 days of measurable precipitation. Intense storm events have the potential to create storm water discharge from construction or industrial related activities. Such discharges have the potential to enter surface waters of the United States or storm drain systems. Cemex Construction Materials has developed a SWPPP that identifies possible characteristics of the facility that may have an impact from a storm water discharge event, as well as the associated controls that would be used to control such an event from the site. This plan was prepared to satisfy the requirements of the Multi-sector General Permit, as required by the Arizona Department of Environmental Quality (ADEQ).

**Impacts of the Proposed Action:** Impacts from storm water events would be minimized by steps taken to ensure regulatory compliance of storm water discharges as described in the SWPPP permit. Through the use of contract stipulations and best management practices (BMPs) associated with operational activities at the site, and the implementation of those preventative measures, control of potential storm water discharge, and potential impacts to drinking or groundwater would be minimized.

**Impacts of the No Action Alternative:** Under the no action alternative, activities related to the mining and processing of aggregate material would still take place within the existing project area, excluding the split estate parcel as previously described. The current permits in place would regulate impacts to surface and groundwater resources.

**4. Noxious Weeds:** Naturalized open space areas are preserved along the southern and northern edges of the property. Along the northern edge of the project area, an earthen berm separates the mining operations from the undisturbed area. The pit area is devoid of vegetation due to the ongoing mining activities. A revegetation plan for reclamation activities planned for

final reclamation and pit closure has been developed for the site, and is in place.

**Impacts of the Proposed Action:** Due to the private holdings of the surface, with only minimal federal mineral estate located on the property, no impacts are expected from noxious weeds.

**Impacts of the No Action Alternative:** Under the No Action alternative, the mining operation and processing facilities are expected to continue on private surface and mineral estate. There would be no additional impacts or concerns regarding the federal mineral portion.

**5. Recreation and Travel Management:** The project area and access are found on private surface, limiting access to and prohibiting recreational activities, which are incompatible with the industrial nature of the operation. Restrictions on public access will be maintained through use of signs posted along the property boundaries.

**Impacts of the Proposed Action:** The project will have no impacts to recreation or public travel corridors. All roads constructed for mining and plant operations are not accessible for public use.

**Impacts of the No Action Alternative:** Under the No Action Alternative, no impacts to recreation and travel management would occur. Access to the project area will continue to be restricted to only personnel associated with facility operations, and recreational activities will not be permitted within the property boundaries.

**6. Visual Resources Management (VRM):** Landscape character of the project area is best described as relatively flat-lying desert saltbush community. Additional vegetation such as creosote bush, shadscale, and sagebrush are also usually found as well. Surrounding land use is predominantly agriculture, with other aggregate operations to the south and southeast. A small residential development is found south of the project area, but is buffered by open space. The plant facilities are visible from Attaway Road on the east, but the open space areas along the northern and southern boundaries shield the ongoing mining activities within the pit itself. Management activities may be seen, but should not attract the attention of the casual observer. Since Cemex's Attaway Road Facility operations are situated on private land, federal contract terms regarding visual concerns are not applicable.

**Impacts of the Proposed Action:** Short term visual impacts from mining and crushing activities would occur from the proposed project activities. Impacts to visual resources would be limited to support of the current mining and crushing activities in the form of the presence of heavy equipment (e.g., front end loaders, dozers) and vehicular traffic with an associated increase in dust and emissions. Specific impacts and associated mitigation is addressed in the Pinal County Air Quality Permit. (See Appendix A). Existing structures and facilities on the Site will not be modified or expanded in order to continue operations within the proposed project area.

**Impacts of the No Action Alternative:** The ground disturbance associated with the existing operations would continue and remain on private surface until final reclamation of the site occurs. Under the No Action alternative, the 100 acre parcel of split estate lands located in the southwest portion of the project area would not be mined, resulting in no impact to federal VRM concerns.

**7. Cumulative Impacts:** Modifications of the region have been characteristic of agricultural lands, with localized industrial impact associated with the aggregate industry. According to a 2008 Transportation Plan developed by the city of Coolidge and the nearby town of Florence, nine (9) sand and gravel mines are located within a five (5) mile radius of Coolidge, mostly to the north of the city along the Gila River floodplain. More recent growth has been in the form of a planned residential development on the west side of the City of Coolidge by Pulte Homes. At the time the report was written, both Coolidge and Florence were experiencing rapid growth. In light of the recent economic downturn in the national and local economies, residential and commercial developments have all but disappeared. Demand for aggregate materials has decreased as well. Decreasing activity levels have decelerated potential impacts from development from the construction industry and indirectly, the aggregate industry. The anticipated impact levels for existing and future actions range from negligible to locally major for these specific resources, but development on private holdings, as is the case in the Proposed Action, are not subject to mitigation measures designed to protect and conserve resources on federal lands.

**Cumulative Impacts of the Proposed Action:** The Proposed Action would not change the existing impact of active mining within the project area. Mining within the property area boundary would continue on private holdings, but would not occur on the split estate parcel. With the decreased rate of development currently taking place in the area, the accumulation of individually nominal effects of residential and commercial expansion would be minor. The Proposed Action would contribute incrementally to the collective impacts to air quality, but would remain under current statutory thresholds.

**Cumulative Impacts of the No Action Alternative:** Under the No Action alternative any cumulative site impacts identified within the property boundaries would remain, as the mining and operations activities would continue on the private mineral estate of the property.

**8. Mitigation Measures:** Cemex Construction Materials, LP would be required to comply with the Performance Measures outlined by BLM and found in Appendix 1. Cemex Construction Materials would also be required to comply the standard terms and conditions of a Mineral Material Contract, as well as all applicable Federal and State environmental regulations.

**IV. PERSONS AND AGENCIES CONSULTED**

**Cemex Construction Materials, LP, William R. Peck, Mining Engineer**

**V. INTERDISCIPLINARY REVIEW**

BLM participants in preparation of this EA are listed below:

<b>Table 11. BLM Interdisciplinary Team Authors and Reviewers</b>		
<i>Name</i>	<i>Title</i>	<i>Areas of Participation</i>
Karen Conrath	LSFO, Geologist	Project Lead, Minerals
Leah Baker	Phoenix District Planning and Environmental Coordinator	NEPA Review

<b>Table 11. BLM Interdisciplinary Team Authors and Reviewers</b>		
<i>Name</i>	<i>Title</i>	<i>Areas of Participation</i>
Cheryl Blanchard	LSFO, Archaeologist	Cultural Resources
Matthew Magaletti	LSFO, Realty Specialist	Lands and Realty
Byron Lambeth	LSFO, Range Lead	Range
Lori Young/Steve Bird	LSFO, Wildlife Biologist	Wildlife, Threatened and Endangered Species
William J. Ragsdale	LSFO, Rec Planner	Recreation and Visual Resources
Emily Garber	LSFO, Field Manager	Review and general oversight

Figure 1. – Cemex Attaway Road Facility location map.

#### Appendix 1 - FONSI and DECISION RECORD

##### References:

Arizona Department of Water Resources (ADWR), 2005. Groundwater Site Inventory online interactive map. <https://gisweb.azwater.gov/waterresourcedata/GWSI.aspx>

Bureau of Land Management (BLM). 1988. *Lower Gila South Resource Management Plan/Environmental Impact Statement. Phoenix District, Arizona.*

Cemex, 2006. *Reclamation Plan, Coolidge Quarry, CEMEX Site No. 34802, Pinal County, Arizona.* Prepared by Brown and Caldwell, Phoenix, Arizona.

Cemex, 2005. *Spill Prevention, Control, and Countermeasures (SPCC) Plan, Cemex – Coolidge Plant, Coolidge, Arizona.* Prepared by Brown and Caldwell, Phoenix, Arizona.

Cemex, 2002. *Storm Water Pollution Prevention Plan (SWPPP), Coolidge Plant, Coolidge, Arizona.* Prepared by Brown and Caldwell, Phoenix, Arizona.

City of Coolidge, Arizona, 2008. *Coolidge – Florence Regional Transportation Plan, a cooperative planning effort initiated by the City of Coolidge, the Town of Florence, and the Arizona Department of Transportation (ADOT).* Prepared by Lima & Associates, Transportation-GIS, Phoenix, Arizona.

Pinal County Air Quality Control District, 2010. *Individual Pinal County Air Quality Permit #B31009.R01.* Issued to CEMEX Construction Materials South, LLC for CEMEX – Coolidge Plant, Coolidge, Arizona.



Cemex Construction Materials, LP  
Attaway Road Facility  
Coolidge, AZ

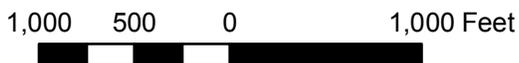
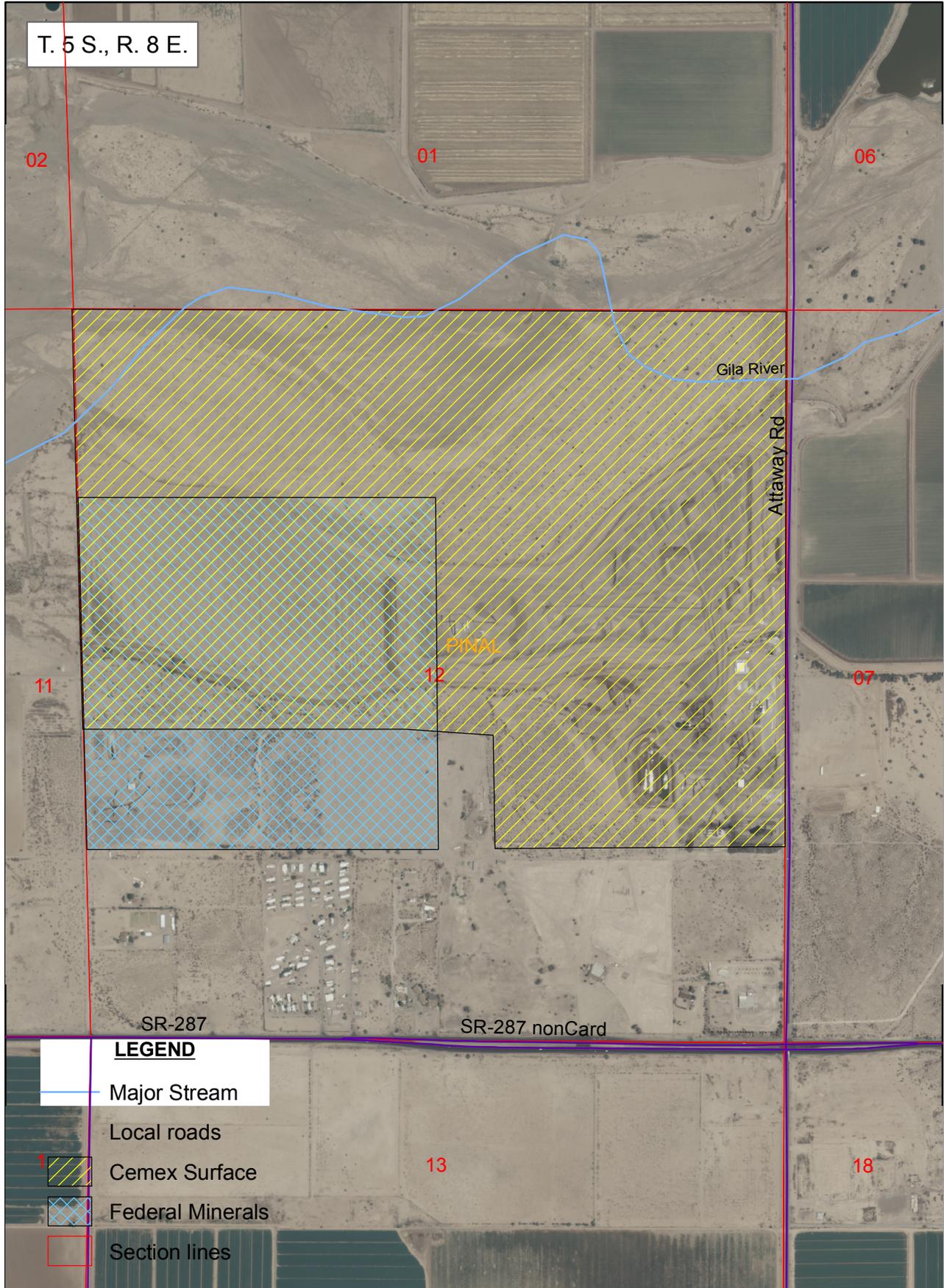


Figure 1: Cemex Coolidge Plant Mineral Material Sale