

Finding of No Significant Impact

DOI-BLM-AZ-P020-2012-004—EA QUEEN CREEK QUARRY MINERAL MATERIAL SALE

Based on the analysis of potential environmental impacts contained in the attached environmental assessment (EA), and considering the significance criteria in 40 CFR 1508.27, described below, I have determined that the proposed action will not have a significant effect on the human environment. An environmental impact statement is therefore not required.

Context

The project is a site specific action that involves approximately 640 acres of federal lands, approximately 6 ½ miles northwest of Florence, Pinal County, Arizona. Ninety five acres are currently disturbed with the existing mining operations authorized under mineral material contract, AZA-35329. This EA analyzes the proposed pit expansion and competitive bid mineral material sales application and associated operating procedures on federal mineral holdings as received by this office.

Intensity

The following discussion is organized around the 10 Significance Criteria described at 40 CFR 1508.27. The following have been considered in evaluating intensity for this proposal:

1. Impacts that may be both beneficial and adverse:

Benefits of the Proposed Action include offering mineral materials for competitive and noncompetitive sale to allow private individuals or companies to provide resources for sale on public markets. It is the policy of BLM as derived from various laws including the Mineral Materials Act of 1947, and the Surface Resources Act of 1955, to make such commodities available for both public and private projects. Sales are made at fair market value, creating job opportunities and tax based revenues, which contribute to both local and regional economies.

Adverse effects include minor impacts to both air quality and visual resources. There would be potential for fugitive dust emissions, but mitigation measures are addressed in this EA. The proposed action would further contribute to contrasts from the existing landscape and encroaching development, but would meet Class IV VRM objectives for this area.

2. Degree of effect on public health and safety:

The decision to issue a mineral material sales contract in itself does not affect public health and safety. Site specific environmental analysis addresses the balance of resource protection with providing availability of mineral materials to the construction market. Public health and safety concerns have been evaluated directly under “Air Quality, Water Quality, Wastes, Hazardous or Solid, Blasting, and Recreation” sections of the EA. Impact to public health and safety is expected to be minimal and therefore not significant based on the protective measures as described under those sections, and through the administrative and engineered controls outlined within this EA and mandated by MSHA (Mining, Safety and Health Administration).

3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas:

The EA evaluated the area of the Proposed Action and determined that no unique geographic characteristics such as wild and scenic rivers, prime or unique farmlands, areas of critical environmental concern or designated wilderness areas or wilderness study areas were present.

4. Degree to which the possible effects on the quality of the human environment are likely to be highly controversial:

The lands identified in the Proposed Action are federal lands established as a community pit through regulations stated in 43 CFR § 3600.0-3. Access to the active mine operations is through the Applicant's private holdings. Although encroaching development has altered the formerly rural/agricultural nature of lands surrounding the 640-acre federal parcel, undisturbed lands will remain in order to buffer and screen the ongoing activities.

5. Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risk:

The mining of mineral materials has occurred in this area since quarry operations began in 1996. The potential risks involved can be controversial, but they are neither unique nor unknown. The proposed operation consists of industry standard practices, resulting in impacts that would normally be expected from an activity being accomplished in compliance with current standards and regulations and based on sound practices. As a result, the anticipated effects of such activity can be predicted with a high degree of certainty.

5. Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration:

This decision is not precedent setting. Future mineral material sales applications will be analyzed for site specific impacts when an application is submitted. This decision does not represent a decision in principle about consideration of future applications. Although the competitive contract will be renewable, all future applications would require further analysis, as defined under 43 CFR 3602.48.

6. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts:

The decision to approve a mineral material sale at the subject lands does not establish an assurance for future sales from which a cumulative impact analysis can be adequately addressed. No individually or significant cumulative effects are predicted as identified in the Cumulative Impacts section of the EA.

7. Degree to which the action may adversely affect district, sites, highways, structures, or objects listed on the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources:

Although identified cultural resource sites are located within the 640-acre federal parcel, those sites have been mitigated by avoidance, and have remained undisturbed since mining began in 1996. Conditions of a new competitive bid contract and any future contract applications will include maintaining measures for protection of those sites as well as any future sites that may be identified. The proposed action will not adversely affect or cause loss or destruction of any significant scientific, cultural, or historical resources.

8. Degree to which the action may adversely affect an endangered or threatened species or its critical habitat:

The proposed action will have no effect on wildlife, Threatened and Endangered, or BLM Candidate Species.

9. Whether the action threatens a violation of federal, state, or local environmental protection law:

The proposed action conforms with the provisions of NEPA (U.S.C. 4321-4346) and FLPMA (43 U.S.C. 1701 et seq.) and is compliant with the Clean Water Act and The Clean Air Act, the National Historic Preservation Act, The Endangered Species Act and The Migratory Bird Treaty Act (MBTA).

Ed Kender
Lower Sonoran Field Office Manager

Date

Queen Creek Quarry Mineral Material Sale

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NUMBER

DOI-BLM-AZ-P020-2012-004—EA

PROJECT NAME

LOWER SONORAN FIELD OFFICE QUEEN CREEK QUARRY MINERAL MATERIAL SALE

LOCATION

- A tract of land located approximately 42 airline miles southeast of Phoenix, Arizona, and approximately 7 miles northwest of Florence, Arizona, (see Map 1).
- T.4 S., R. 8 E., Sections 12 SE & 12 NE, T. 4 S., R. 9 E., Sections 7 SW & 18 NW, G&SR, Pinal County, Arizona

CASE FILE

AZA-35796

APPLICANT

JADAAL, LLC

INTRODUCTION

JADAAL, LLC has submitted an application requesting a mineral material disposal contract for 1,000,000 tons of basalt and cinder products to be extracted over the next ten years in order to continue operations at their Queen Creek Quarry, located approximately 42 airline miles southeast of downtown Phoenix, and 6 ½ miles northwest of Florence, Arizona. The proposed sale would allow for the continuation of activities authorized under contract AZA-35329, through a competitive bid process. Existing surface disturbance is approximately 103 acres of federal lands, with historic and attendant operations extending onto an additional 150 acres of adjacent state and private lands. Mining operations would continue through 2022, with an opportunity to renew the contract for an additional ten year term.

The proposed disposal is required to be analyzed through the appropriate level of NEPA analysis and handled under a competitive sale process. Although there is the possibility that JADAAL, LLC may not be the successful bidder in this mineral materials sale, their proposed mining and reclamation plan, as well as existing operations, are being analyzed in this EA, as they provide a reasonable industry standard approach to mining the BLM parcel.

A total of 640 acres of BLM administered land lies within the identified project area. Local access to the mine site from Queen Creek is south on Hunt Highway, turning easterly on the Pinal County easement known as Franklin Road, then one mile to the dirt road access to the entrance. An alternate access from the north is along a dirt road heading southeasterly from Arizona Farms Road, approximately 2.4 miles east of Hunt Highway. The federal portion of the Queen Creek Quarry lies approximately 1.5 miles south of Arizona Farms Road, on the west side of the Copper Basin Railway track. Figure 1 shows the location and land status of the quarry site.

Quarry operations at the site have been taking place since 1996 when Phoenix Cinders, Inc., produced cinders from the site for manufacture of concrete block. In 1999, Arizona Pacific Materials, LLC purchased the assets of Phoenix Cinders. Operations at the site continued with an extensive exploratory drilling program in 2003 to delineate the extent of the cinder resource. Results of that program indicated the majority of the deposit was basalt, rather than cinders. In 2011, JADAAL, LLC purchased the assets of Arizona Pacific Materials, LLC and has continued to produce material from the Queen Creek quarry for use in the asphalt, and concrete redi-mix industries.

Purpose and Need for Action and Decision to be Made

The purpose of the action is consider JADAAL's application for continued mineral material extraction at their existing Queen Creek quarry site through a competitive bid process. 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.

Per 30 USC Sec. 1602, it is the continuing policy of the United States to promote an adequate and stable supply of materials necessary to maintain national security, economic well-being and industrial production, with appropriate attention to a long-term balance between resource production, energy use, a healthy environment, natural resources conservation, and social needs.

This 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 sales 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 the proposed project and issue a mineral materials contract.

Land Use Plan Conformance

This EA is tiered to the decisions, information, and analysis contained in the Lower Sonoran Record of Decision & Approved Resource Management Plan (2012). Objectives for management of salable mineral resources are defined in Chapter 2, 2.2.15 Minerals Management. Management objective MM-1.1.12 states "BLM lands not otherwise withdrawn or segregated from minerals actions will be open to discretionary mineral materials disposal via sales or free-use permits on a case-by-case basis, under regulations at 43 CFR 3600, subject to appropriate restrictions and stipulations to protect other resources". This Proposed Action conforms to the land use plan terms and conditions as required by 43 CFR §1610.5.

The BLM decision only authorizes extractions of BLM minerals. Use of non-BLM land (e.g., private land, National Forest System lands, State Trust land) is subject to the appropriate jurisdictional agency or private landowner's permission. The regulations at 43 CFR §3600.420(a)(6) require that JADAAL, LLC

JADAAL Queen Creek Quarry

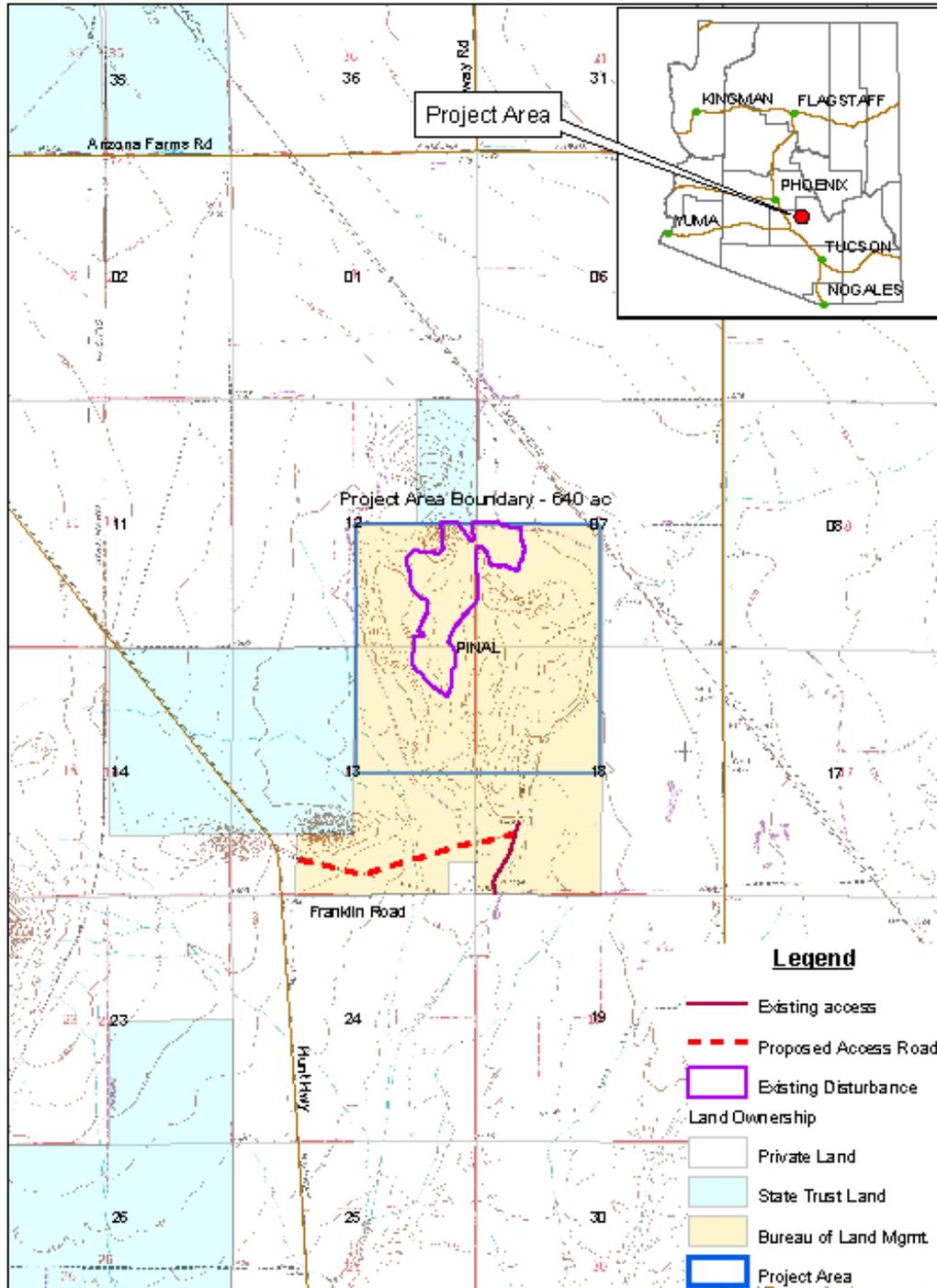


Figure 1. Project Location Map

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 JADAAL, LLC comply with the 43 CFR 3600 regulations.

Scoping & Public Participation

The principal goal of scoping is to identify issues, concerns, and potential impacts that require detailed analysis. Internal consultation with resource specialists of the Lower Sonoran Field Office was performed in order to identify important resource values that may be contained within the project area. Internal scoping for this EA included a site visit 3/18/2011 by BLM LSFO resource specialists, a review of available resource information, and an assessment of the types of impacts typically associated with mineral material extraction and processing.

Public outreach was conducted by the following methods:

- 03/01/2012: BLM posted this project on the Lower Sonoran Field Office NEPA website;
- 02/01/2013: BLM issued a news release to the public for a public comment period (02/01/2013 through 02/15/2013) ;
- 01/30/2013: BLM sent public scoping letters to adjacent landowners and stakeholders to request public comments on the proposed sale;
- 05/28/2013: Tribal Consultation letters were sent out to the four southern tribes of Arizona, the Tohono O'odham Nation, the AK Chin Indian Community, the Salt River Pima-Maricopa Indian Community, and the Gila River Indian Community, as well as the Hopi Tribe.

External communication with tribal governments and other county and state agencies was performed by certified mail, in order to solicit comments and/or concerns to be incorporated into this analysis. Notifications were sent to the State of Arizona Land Board, Arizona Department of Fish and Game, Pinal County Planning Department, the four southern Tribes, and adjacent landowners. Two responses were received by email from adjacent land owners .Scoping comments have been incorporated into the development of the Alternatives described in this EA.

Issues

During scoping, the resource specialists identified the following elements of the natural and human environment as present in the project vicinity and potentially affected by the proposed action:

- What are the health implications of dust created from the mining operations?
- Are there any impacts to groundwater from storm water runoff from the mine site?
- How will archaeological sites be protected from the expanding quarry site?
- Will there be an increase in noise levels as a result of awarding the operator a new contract?

- Will the mining operations be visible to the neighboring residential neighbors, and how will it affect the adjacent landscape?
- Will mining operations affect neighboring residential property values?

These issues are addressed in the following subsections.

Alternatives

Proposed Action

The Proposed Action consists of extracting and processing up to 1,000,000 tons (~600,000 yds³ weight equivalent) of basalt products over a period of 10 years on federal lands administered by the Lower Sonoran Field Office. Current mining activities have impacted approximately 103 acres within SE ¼ Section 12, NE ¼ of Section 13, T. 4 S., R. 8 E., and the NW ¼ Section 7, T. 4 S., R. 9 E., Gila and Salt River Meridian, Pinal County, Arizona. The bulk of the rock products sold are used in the manufacture of asphalt, with some sold for use in landscape, road construction, and geotechnical applications. Mining is accomplished through use of heavy equipment, (large bulldozers and front-end loaders) but blasting also occurs when the material becomes too hard to mine with heavy equipment. Blasting is performed by outside contractors who are licensed to perform such activities. No explosives are stored on site. Gates and berms limit access to the project area, with no public access to the operational areas.

The current disturbance footprint includes processing equipment, sized stockpiles, and facilities for crushing and screening. Quarried material is loaded by an Excavator into a tracked crushing plant, where it is initially processed to a minus 8 in. size, then transported by a wheel loader into a 40-ton haul truck to the crushing and screening plant, located just north of the active pit area. Crushed and screened aggregate are stockpiled adjacent to the crushing operation. Two Kawasaki Z95 7-yard wheel loaders are used for moving material to the crushing plant feeder, where it is further crushed, washed, sized, and stockpiled for sale. Processed stockpiles are located north of the quarry, where haul trucks can then be loaded for offsite delivery. Waste material is stockpiled at various locations north of the active pit, which will be used in reclamation of the former cinder quarry (See Figure 2). An operational asphalt batch plant, operated by Vulcan Materials, is located on the private holdings north of the federal project area (see Figure 2). Material extracted from the quarry supplies Vulcan's plant.

Electrical power to the processing facilities has allowed the operator to eliminate a diesel powered generator formerly used to power the crushing facilities.

JADAAL Queen Creek Quarry



Figure 2. Project Site Map

Table 1 lists the proposed mining and processing equipment.

<i>Table 1. Mining & Processing Equipment</i>			
<i>Type</i>	<i>No.</i>	<i>Model</i>	<i>Size/Capacity</i>
Tracked Excavator	1	Case CX 460	105,000 lbs.
Tracked Excavator	1	Komatsu PC300	Multi-function
Front End Wheel Loader	2	Kawasaki Z95	7 Cu. Yd.
Front End Wheel Loader	1	Kawasaki Z115	8 Cu. Yd.
Tracked Bulldozer	1	Caterpillar D10N	144,000 lbs.
Skid Steer	1	Case 90 XT	1 Cu. Yd.
All Terrain Forklift	1	Case 585E	8,000 lbs.
Scraper/Grader	1	Caterpillar 120G	12' blade
Water Truck	1	Kenworth	3,000 Gallon
Haul Trucks	2	Komatsu 325 HD	40 Ton
Static Grizzly Frame	1	Z-Screen	16' x 12'
Mechanic's Service Truck	3	Various	Various
Tracked Jaw Crusher	1	Sandvik Crawlmaster 1208i	550 Tons/Hr.
Truck Scale	1	Fairbanks 15' x 70'	60 Ton
Pick Up Trucks	4	Various	½ Ton
Office Trailer	1	Mobile Mini	30' x 60'
Storage Trailers	5	Mobile Mini	Various
Crushing & Screening Plant	1	Eagle Jaw; Sandvik Hydrocone; JCI Screen; Remco Vertical Shaft Impactor; Simplicity Screen Plant; Conveyors; Wash Sand Screw; Control Tower; (2) Electrical Trailers; Dust Control Spray System	Various

As appropriate, any potentially affected resources would be protected through the application of performance standards, standard or site-specific mitigation measures, and other management actions within BLM's regulatory authority. At a minimum, these include BLM's authority to require the following:

- Avoidance of sensitive resources and relocation of a surface disturbance activity in order to protect a sensitive resource.
- Submittal and implementation of an adequate reclamation plan and achievement of reclamation goals.
- Conduct operations in a manner that avoids undue impacts to other resources.

Reclamation

Reclamation at the Queen Creek Quarry will proceed concurrently with mining. To the extent possible, reclamation of the disturbed area will be reclaimed to closely match the natural surface expression of the adjacent undisturbed lands. Where feasible, pit highwalls will be reclaimed by backfilling along the

lower portions, and scaled along the upper portions in order to blend in with the basalt ridges of the surrounding undisturbed areas. Overburden and stockpiled fine material will be used in final regrading and reseeding.

Final pit slopes will be 2.5H:1V, or less. All equipment, including the processing plant, mobile equipment, fuel tanks, and office equipment will be removed; all roads will be ripped and recontoured. All reclamation efforts will be performed in accordance with BLM's H-3041-1, Solid Mineral Reclamation Handbook (BLM, 1992), and as defined in JADAAL's Mining and Reclamation Plan, as approved.

No Action

The No Action alternative generally means that the proposed action would not take place. In the case of a competitive Mineral Material Sales contract, this would mean denial of the competitive bid application associated with the Proposed Action, but would include continued operations at the Queen Creek Quarry site under existing non-competitive contract AZA-35329, until current term and/or volume limitations are met. JADAAL's current contract was issued March 11, 2010, for a term of 5 years. Under the No Action Alternative, JADAAL could submit a new application for a subsequent non-competitive mineral material sales contract in order to continue mining. If JADAAL chose not to submit a new application, reclamation would be initiated.

In accordance with CFR §3603.11," BLM's designation of a community pit site establishes a right to remove the materials superior to any subsequent claim or entry of the lands". The Queen Creek Quarry was designated a community pit, January 21, 1996, under regulations found at 43 CFR §3603.10(a), which states "BLM may make mineral material sales and allow free use under permit from the same deposit within areas that we designate for this purpose". Having such a designation may include the possibility of submission of further applications for competitive and non-competitive mineral material sales contracts from other interested operators.

Alternatives Considered but Removed from Detailed Analysis

The request for an alternate southwest access road across federal lands is the result of the previous owner's desire to limit impacts of traffic entering and exiting the processing facilities off of Franklin Road (see Figure 1). Although existing traffic from current operations enters the quarry area through the north off of Arizona Farms Road, the southern access from Franklin Road was utilized by the previous owner, Arizona Pacific Materials (APM), due to a dispute between APM and the previous private property owner that controlled the northern access. JADAAL purchased the property of the northern access route, allowing uninterrupted access from Arizona Farms Road. The northern access to the quarry site is preferred, although the proposed southwestern access road location has been identified and culturally cleared. In the event the proposed southwestern route becomes necessary, all required state, federal, and local permits to protect public health and safety will be a condition of any modification to JADAAL's current mining plan, as approved. The proponent has indicated that there are no plans at this time to utilize a new access to the quarry.

Affected Environment & Environmental Consequences

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:

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 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.

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.

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.

Prime Farmland: Although agricultural lands are located north of the proposed project area, quarry operations are not located on land that is currently farmed or on land that could be farmed. Private lands that are currently farmed will not be impacted as a result of issuing a new competitive mineral material contract on the subject lands. The Proposed Action would have no effect on Prime Farmland.

Wilderness: The Proposed Action is not located near or within a designated Wilderness Area. The closest wilderness area is the Superstition Wilderness, approximately 20 air miles north of the project area. The Proposed Action would have no effect on wilderness.

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 not located within a floodplain. 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 quarry pit;
- Site-specific best management practices to capture and divert storm water runoff.
-

The proposed action would have no effect on an area identified as a floodplain.

Range Management: There is one BLM-administered grazing allotment on the state and federal lands adjacent to the project area. The Walker Butte Ephemeral Allotment consists of approximately 1,330 acres in Township 4S, Range 9E, Sections 12, 13, 7, and 18. Approximately 994 of these acres are administered by the BLM, and 312 acres are administered by Arizona State Land Trust. The Proposed Action will have no effect on range management.

Recreation and Travel Management: Main access to the operations is from Arizona Farms Road, then through a locked gate on private lands. The gate remains unlocked during business hours. Access is limited to authorized users only; visitors and vendors must check in at the office for entry. The north access is found on private land. A secondary access is located outside the southern edge of the federal property, off of Franklin Road. Entry to the federal property is through a locked gate, in order to prevent unauthorized access to the active operations. The entire project area is fenced, with signage posted, warning the public of the active mining operations. Restrictions on public access will be maintained through use of signs posted along the property boundaries. Due to the industrial nature of the operations, recreational activities are incompatible and therefore prohibited within the 640 acre project area.

Wildlife/Threatened and Endangered Species: In response to a planned expansion of the APM facility operations in 1997, a biological evaluation of the area was conducted by a BLM wildlife biologist. Results of that survey indicated that 34.04 acres of the project area were suitable as desert tortoise habitat. The owner at that time, Phoenix Cinders, was given the option to use avoidance and fencing of the habitat to mitigate impacts from the expansion, or mitigation by compensation. Phoenix Cinders chose the latter, and subsequently paid \$17,943.16 to the BLM, fully mitigating the desert tortoise habitat identified within the project area.

In addition, the project area was surveyed for cactus ferruginous pygmy-owl habitat. Although previously listed as a threatened and endangered species, the cactus ferruginous pygmy owl was subsequently delisted in 2006, but remains a BLM Sensitive Species candidate. Results of the survey indicated no significant impacts to the cactus ferruginous pygmy owl, or its habitat. The project will have no effect on wildlife, Threatened and Endangered, or BLM Candidate Species.

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. Scoping did not reveal that the proposed action could have a disproportionate environmental effect on minority or low income populations.

Cumulative Actions

The project area is located within an area of Pinal County which currently remains chiefly agricultural/rural, but has been significantly altered by several new residential and commercial developments. Although numerous large producing agricultural fields remain north of the project area

(see Figure 3), lands to the south and west and further east have seen recent development. In 2004, a master planned golf course community known as Anthem at Merrill Ranch by Pulte Homes, broke ground to the south of the federal property. At the time the development was proposed, build out was estimated to ultimately encompass 15,000 acres. In 2006, another residential community development broke ground on a 150 acre parcel within ½ mile of the eastern boundary of the private lands owned by JADAAL, ultimately envisioned to accommodate up to 600 new home sites. A smaller development started construction in 2005 on approximately 75 1-acre home sites that borders the northeast boundary line of the 640 acre BLM parcel. Yet another residential golf course development is located approximately 1 mile west of the federal property boundary.

A proposed new residential development called the Village at Magic Ranch, is currently in the process of obtaining final approval from the Town of Florence. At full build-out, the development is expected to contain 745 lots, developed over 3-4 years. Although the eastern edge of the proposed development abuts the western boundary of the federal lands in the W2SE ¼ Section 12, a 1,000 ft. buffer has been established between the edge of the federal property and the quarry operations. Except in the northern portion of the 640 acre parcel, where JADAALs private property abuts the federal land, the quarry and process operations will expand no closer than 1,000 ft. of the BLM boundary.

Commercially, the new Florence Hospital at Anthem, opened its doors in March of 2012. Located at the southeast corner of Franklin Road and Hunt Highway, approximately 10 miles north of downtown Florence, the new 96,000 square ft. facility is expected to accommodate more than 25,000 patients annually. Additionally, a retail shopping area is located about 1 ¾ miles south at the intersection of Hunt Highway and Merrill Ranch Parkway.

Although the rural nature of the area has significantly been altered, the physical formation of the basalt deposit (below grade), coupled with the planned preservation of natural buffer zones should insure that substantial distances separate the quarry facilities from developed areas. Materials are mined from the surface down. A buffer of undisturbed volcanic rock is preserved around the project area and will remain throughout all phases of expansion and reclamation in order to shield the operations from surrounding land uses, as well as provide a safety perimeter.

Critical elements potentially affected

The CEQ defines cumulative effects (also known as cumulative impacts) as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what (federal or non-federal) agency or person undertakes such actions” (40 CFR 1508.7).

The intensity, or severity, of the cumulative effects considers the magnitude, geographic extent, duration, and frequency of the effects. The magnitude of the effect reflects the relative size or amount of the effect; the geographic extent considers how widespread the effect may be; and the duration and frequency refer to whether the effect is a one-time, intermittent, or chronic event. The past, present, and reasonably foreseeable future actions considered in the cumulative effects analysis are summarized in the following.

JADAAL Queen Creek Quarry

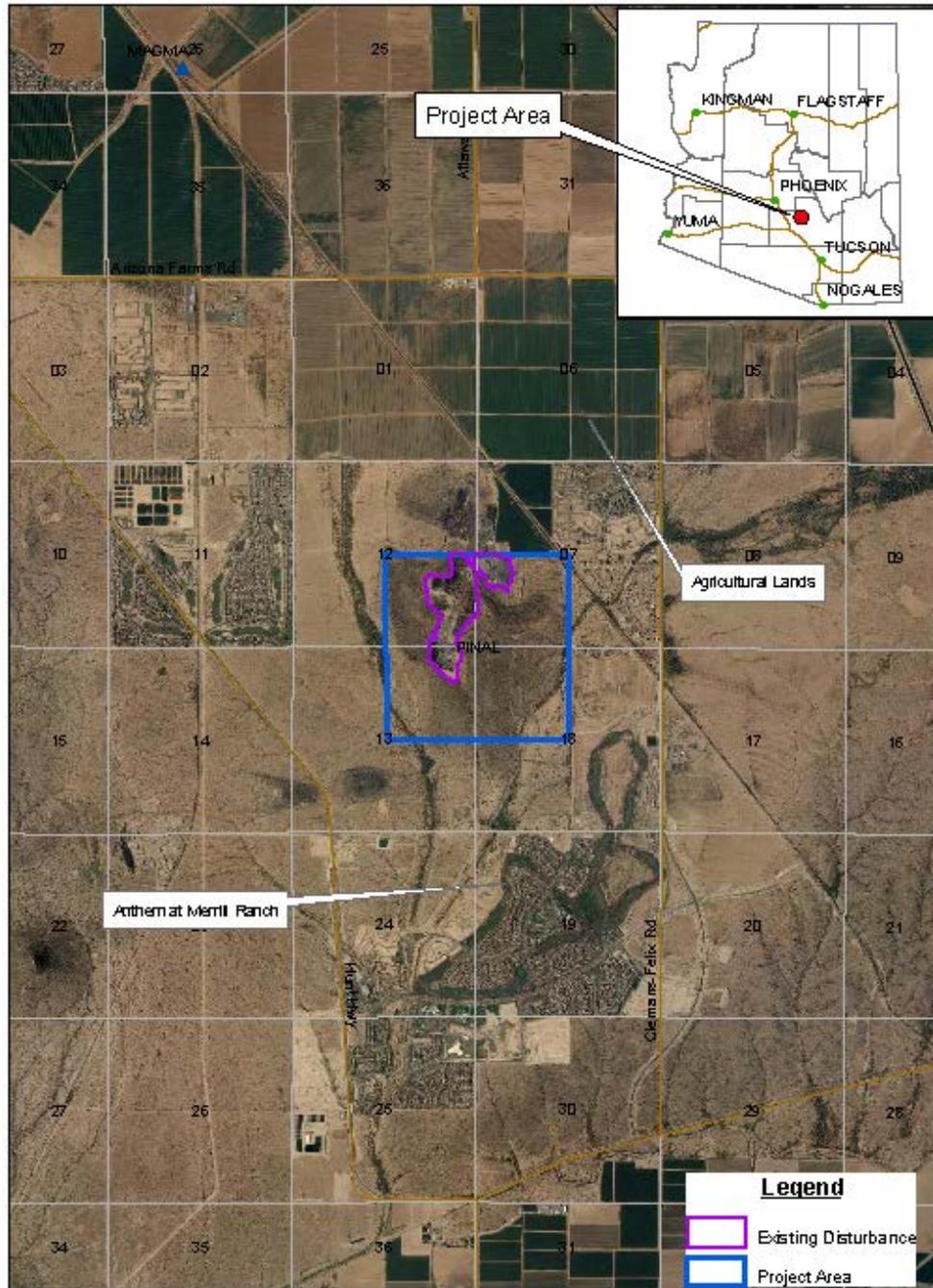


Figure 3. Project Area Map

Mineral Resources

The long term needs for construction materials involved with highway and construction projects will continue, although demand may exhibit some small-scale fluctuations based on economic conditions. Shortages of crushed stone in some urban and industrialized areas are expected to continue to increase owing to local zoning regulations and land-development alternatives. These issues are expected to continue and to cause new crushed stone quarries to locate away from large population centers, which will in turn increase transportation costs for market distribution (USGS, 2013).

Mining under a competitive sales contract within the project area boundary would not change the existing impact of active mining. Of the 640 acre federal site where the current mining activity is occurring, 103 acres of federal lands have been impacted by these operations, with an accompanying 150 acres of adjacent state and private land. Under a competitive bid scenario, long-term pit expansion is expected to encompass another 79 acres.

Air Quality

Further expansion of the quarry pit will result in a cumulative increase in surface disturbances as well as an incremental contribution to the collective impacts to air quality, but would remain under current permitted statutory thresholds. Applicable emission limitations and controls are defined in the Pinal County Air Quality Control Permit, with compliance reporting and testing requirements. This permit must be renewed every 5 years. Future air quality permits authorized by the Pinal County Air Quality Control District (PCAQD) will be subject to stricter emission and monitoring control measures due to the recent designation of this part of Pinal County as an area of nonattainment for PM₁₀ emissions.

Cultural Resources

Federal laws and regulations protect cultural resources on public lands, including archaeological sites and historic properties. Development activities must comply with these protective regulations, and BLM requires the completion of cultural resource inventories prior to surface disturbing activities.

Because Class II & III cultural resource inventories must be completed, the potential for increased impacts on cultural artifacts will be minimized. By avoiding known cultural and historical sites, the potential for incremental increases in cumulative impacts will be avoided.

Completion of cultural resource inventories would have a beneficial, cumulative impact on the level of cultural information about the proposed area. Implementation of resource protection and mitigation would enhance protection of such resources upon discovery.

Air Quality

Affected Environment

The Environmental Protection Agency (EPA) has the primary responsibility for regulating air quality, which includes seven nationally regulated ambient air pollutants. EPA has delegated enforcement of air

quality standards to some states. In Arizona, federal air quality regulations are enforced by the Arizona Department of Environmental Quality (ADEQ) through its delegated authority from the EPA. As defined in accordance with Arizona Revised Statutes (A.R.S.) §49-107, the ADEQ has delegated to the Pinal County Air Quality Control District, the responsibility for determining potential impacts subject to air quality laws, regulations, standards, control measures, and management practices within the project area. ADEQ has the ultimate responsibility for reviewing and permitting any project's air quality impacts.

National Ambient Air Quality Standards (NAAQS) are health based criteria for the maximum acceptable concentrations of air pollutants in an area of public use. 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.

Currently, health consequences of dust are addressed through ADEQs evaluation of pollution sources and their impacts on public health and welfare. Short and long term exposure to both coarse (PM₁₀) and fine (PM_{2.5}) particulate matter can cause harmful respiratory effects, which may include development of chronic respiratory diseases, such as asthma. In December, 2012, the EPA strengthened the nation's air quality standards for fine particle pollution, by revising the primary annual standard to 12 micrograms per cubic meter (µg/m³), and retaining the 24-hour final particle standard of 35µg/m³.

In May 2012, the EPA re-designated a portion of Pinal County to "nonattainment" for the 1987 24-hour PM₁₀ national ambient air quality standard. The Queen Creek Quarry project area falls within EPA's final boundaries for non-attainment in the county. The Pinal County Air Quality Control District (PCAQCD) is currently working with the ADEQ to establish initial emissions categories, and identify emissions inventories in support of revision of the Arizona State Implementation Plan (SIP) to provide for attainment of the PM₁₀ standard in those newly designated areas (DiBiase, 2013). EPA has stated that the SIP must be revised as expeditiously as practicable, but no later than the end of the sixth calendar year after designation. Designation of portions of Pinal County to "nonattainment" for PM₁₀ National Ambient Air Quality Standards (NAAQS) will require more rigorous permitting requirements in order to meet NAAQS standards for the area. In addition to identifying emission source inventories, Pinal County is formulating new emission control measures for air quality control permits. New requirements to control particulate matter (PM) emissions will be implemented as a condition of obtaining a Pinal County Air Quality Control Permit, once these measures have been finalized

No Action Alternative

Under the No Action Alternative, monitoring and control of dust emissions under the current contract, AZA-35329, would still occur as set forth in the Pinal County Air Quality Control District (PCAQCD) Permit #B31038.A01, until volume and/or term limitations are met. The existing operations at the Queen Creek Quarry would still be held to specific provisions and acceptable emission limitations as described in the current PCAQCD Permit, which is current through February 15, 2016.

Proposed Action

According to PCAQCD, existing holders of permits for air quality control regulating particulate emissions and controls will be subject to newly formulated emission limitations and monitoring and control measures upon permit renewal, and will not be subject to retroactive requirements.

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”. BLM sets forth performance standards and special stipulations with the issuance of any mineral material contract. Provisions of such contracts require that the purchaser obtain and keep current and in good standing all permits required by the various City, County, State, and Federal agencies and will abide by the stipulations set forth in the permit. In addition, all applicable Federal, State, County, and City pollution standards and permits must be in place prior to production activities, and remain in good standing through the course of active operations.

JADAAL operates under Pinal County Air Quality Control District permit #B31038.A01, which was issued March 23, 2011, for a term of 5 years. In anticipation of tighter air quality standards, the former operator, Arizona Pacific Materials, covered the majority of quarry traffic areas with ground, screened asphalt (GSA) to mitigate fugitive dust particulates.

Water is the primary dust control agent used to control rolling stock emissions and to minimize dust produced during crushing operations. Haul and entry roads are sprayed on a regular basis in accordance with terms and conditions of the Pinal County Air Quality Control District. Stockpiled screened and sized materials are also periodically sprayed to minimize fugitive dust. Visible Emission Test results, as required, are reported to Pinal County to demonstrate that air quality standards are being met.

Once the new performance standards regarding particulate emissions have been established, new PM₁₀ attainment standards for those areas designated as nonattainment will be applied to both new and renewed PCAQCD permits.

Water Quality

Affected Environment

Under section 402(p) of the Clean Water Act (CWA) and regulations found in 40 CFR 122, stormwater discharges associated with industrial activity are prohibited to waters of the United States unless they are covered under an authorizing permit. The U.S. Army Corps of Engineers (COE) administer Section 404 permitting of the Clean Water Act regulating discharge of dredged or fill material into “waters” of the United States, which includes lakes, reservoirs, wetlands, and perennial and ephemeral streams and washes. Under the current Plan of Operations for the Queen Creek Quarry site, the COE determined there were no jurisdictional waters of the U.S. present within the project area.

In Arizona, stormwater discharges are covered by Arizona Pollutant Discharge Elimination System (AZPDES) permits. JADAAL, LLC has submitted a Storm Water Pollution Prevention Plan (SWPPP), prepared by Del Sol Group, Phoenix, Arizona, to comply with the requirements of the AZPDES General Permit for Storm Water Discharges Associated with Industrial Activity – Mineral Industry, also known as the Mining Multi-Sector General Permit (MSGP). This plan 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 manage an event from the site, as required by the Arizona Department of Environmental Quality (ADEQ).

According to the Arizona Department of Water Resources (ADWR, 2012), the groundwater level at the project site is located 268 feet below ground surface, or approximately 1242 feet above mean seal level (amsl). The nearest fresh water well is located approximately ½ mile east of the project area. Arizona Department of Water Resources (ADWR) Groundwater Site Inventory data (GWSI) list this 450-foot deep well as originally drilled in 1952, with the most recent water level measurement taken December, 2011.

The Queen Creek Quarry lies down drainage from an agricultural area where irrigation ditches and their raised levees restrict surface drainage to existing irrigated fields. Significant storm water drainage does not enter the project area from up-gradient sources. Within the active project area, access control barriers, irrigation levees and small berms along roadways restrict runoff. Storm water runoff is directed into the quarry pits for retention and controlled by permanent slope diversions and temporary diversion dikes. Storm water entering the surrounding areas infiltrates naturally, or is directed to the southeast to an ephemeral wash (Del Sol Group, 2011). Three ephemeral washes drain the undisturbed areas through natural drainage patterns, which drain to the south and ultimately drain into the Gila River approximately six miles to the south.

Water for JADAAL's operations is delivered to the site via an above ground pipeline that accesses a Central Arizona Project (CAP) allocation pond located on private property adjacent to the northern boundary of the federal property. This water source is used for all phases of the operations.

No Action Alternative

Under the No Action Alternative, ongoing activities related to the mining and processing of crushed basalt products under the current contract would still take place within the existing project area until volume and/or term limitations have been met. Mining activities would continue to be conducted such that regulatory framework as required by the Clean Water Act are met. Current operations are regulated under the current MSGP, in order to eliminate point source pollutants that may be discharged into drainages as a result of storm events. The MSGP, establishes effluent limits and identifies control measures in accordance with applicable state and federal requirements.

Proposed Action

EPA's first MSGP for stormwater discharges associated with industrial activity was issued on September 29, 1995, and has since been reissued in 2000 and 2008. In 2013, the EPA proposed new provisions in the MSGP in order to improve permit clarity, address errors, and to streamline the permit process. The proposed 2013 MSGP, once finalized, will replace the 2008 MSGP, which expired September 29, 2013.

Although a new permit to replace the current MSGP has not been issued, facilities that obtained coverage under the 2008 MSGP prior to its expiration are automatically granted an administrative continuance of permit coverage. The administrative continuance will remain in effect until a new permit is issued. Those facilities already covered under the 2008 MSGP are not required to submit a new Notice of Intent (NOI)

for permit coverage until the MSGP is reissued, and must continue to comply with all of the requirements in the 2008 permit, including requirements for monitoring and reporting.

EPA expects to reissue the MSGP in the spring of 2014. At that time all facilities desiring coverage under the MSGP, including those with administrative continuance under the 2008 MSGP, will need to submit NOIs for permit coverage. Performance standards of a new competitive contract will include coverage of JADAAL's proposed operations under the new MGSP standards, once finalized.

Wastes, Hazardous and Solid

Affected Environment

Water, soil, and biological resources may be potentially affected by an accidental release of hazardous materials during transportation to and from the project area, storage, and use in construction and operations. Areas sensitive to hazardous material release 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, 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.

Diesel fuel and lubricants are the major hazardous materials found at the project site. Fuel is stored in Mining Safety and Health Administration (MSHA) and Occupational Safety and Health Administration (OSHA) approved double-walled storage tanks supplied by a fuel vendor. Lubricants and oils are contained in similar tanks appropriately labeled for safety. Waste oil and other related fluids, oil rags, and used oil filters are collected and disposed of off-site. Minor servicing of equipment is done on-site in designated areas only; major repairs occur off-site as deemed appropriate. Controls are in place to prevent release of lubricant, fuels, and oils to the ground surface. These regulations and added contract performance standards are expected to adequately mitigate any potential hazardous or solid waste issued associated with the project.

No Action Alternative

Under the No Action alternative, mining activities would continue, as permitted under AZA-35329, until volume and/or term limitations of the contract are met. Current federal and state laws and regulations applicable for the handling of wastes at the site, and performance measures attached to the existing contract, would remain in effect for the existing operations, and are anticipated to mitigate any potential pollutants, as described above, through the duration of the existing contract.

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 normal operational and processing activities through use of the equipment and vehicles. None of these materials used in the facility operations meet

the criteria for an acutely hazardous material/substance, as defined in 40 CFR-355, in amounts above threshold quantities.

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”, the site has been surveyed for hazardous materials in a Phase I Environmental Site Assessment (ESA) (Ninyo & Moore, 2011). Results of this survey did not reveal any Recognized Environmental Conditions (RECs) associated with the site.

Nothing in the analysis or approval of this action by BLM authorizes or in any way permits a release or threat of a release of hazardous materials (as defined under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, 42 U.S.C. 9601 et seq., and its regulations) into the environment that will require a response action or result in the incurrence of response costs.

Visual Resources and Noise

Affected Environment

Landscape character of the project area is best described as generally flat, with small slightly elevated volcanic ridges exposed on the northern portion of the project area. Elevations range from 1,650’ at the highest point on the north end near the cinder pit, to 1,500’ at pit bottom. Surrounding land uses are predominately agricultural/rural, with recent residential development to lands both to the south, east and west of the project area. State of Arizona Trust lands are found to the north and west.

The active mining operations occur below grade within the active pit area, and are not visible from the Hunt Highway, Franklin Road, Arizona Farms Road, or nearby residential complexes. A natural buffer currently occurs, and will be preserved between quarry operations and the boundary of the 640-acre project area.

The Lower Sonoran Record of Decision and Approved Resource Management Plan (2012) (Plan), establishes this area as visual resource management (VRM) class IV. As defined in the Plan, the goal and objectives for visual resources are to manage public lands according to the class objectives set in the Visual Resource Inventory Handbook H-8410 and BLM Guidelines for a Quality Built Environment. Class IV objectives are to provide for management activities which require major modifications of the existing character of the landscape. Although the level of change to the landscape can be high, every attempt should be made to minimize the impact of these activities through careful location and minimal disturbance.

According JADAALs Mining and Reclamation Plan, the quarry will operate during normal business hours. Typical business hours are 8 am to 5 pm, Monday through Friday. Due to the subgrade development of the quarry, as well as placement of the processing plant within the excavated portion of the quarry operations are topographically buffered from the surrounding land users.

Noise is generated during the course of normal operations from the crushing and screening plant, as well as from operation of the heavy equipment, predominately from the required safety equipment on the heavy equipment in use. Isolating the processing activities within the quarry reduces the noise impacts to adjacent landowners, as well as providing a buffer between the quarry and the neighboring private developments.

No Action Alternative

The current ground disturbance associated with the existing operations would continue until volume and/or term limitations of contract AZA-35329 are met, and remain until final reclamation of the site occurs. Screening of active mining operations from topographic placement and features found on the site would be preserved.

Noise levels from current quarry operations remain at low levels, due to the subgrade development of the quarry, and the surrounding topographic ridges that buffers sound from the ongoing activities of the operation.

Proposed Action

As defined in the *Lower Sonoran Record of Decision and Approved Resource Management Plan (2012)*, even activities in VRM Class IV should consider designs that help reduce visual contrast between a proposed project and landscape settings (color, texture, line, and form). According to JADAAL's Mining and Reclamation Plan, a 1,000 ft. buffer will be preserved around the edge of the federal property in order to reduce visual and audio impacts beyond the excavation. This buffer will effectively separate the mining operations from current and/or any future residential development that may occur near the periphery of the BLM parcel.

Impacts to visual resources would be limited to support of the current mining and crushing activities in the form of heavy equipment (e.g., front end loaders, dozers, etc.) and vehicular traffic with an associated increase in dust and emissions. Specific impacts are addressed in the Pinal County Air Quality Permit. Activity that occurs within the pit is not visible from the surrounding landscape. Activity that occurs at grade is shielded by a volcanic ridge that outcrops along the northern edge of the federal boundary. Natural open space buffers the project site activities from surrounding users. Likewise, spatial isolation reduces the impacts of noise generated by the quarrying and processing, as these operations will expand to no closer than within ~ 1,000 feet of the BLM boundary. These strategies meet management objectives for VRM Class IV designation.

Cultural Resources

Affected Environment

Prior Environmental Assessments of the Queen Creek Quarry project area were done in 1998 and again in 2004. A comprehensive archaeological survey of the entire 640-acre project area was completed in the summer of 2003, by SWCA, Inc., Environmental Consultants. Results of that survey identified four

archaeological sites eligible for the National Register of Historic Places. A previously recorded site was relocated and re-evaluated, making the total number of five sites within this project parcel. Long term avoidance of the identified sites was recommended, through project design and the installation of physical barriers. Other areas, away from the cultural sites were approved for mining activities.

In December of 1997, the BLM brought cultural resource staff from the Gila River Indian Community out to this project area to tour the sites. The mining plan was re-drawn during both of these projects to assure avoidance of the sites identified within the project area boundary. SWCA Environmental Consultants was commissioned again by APM to survey an approximately ½ mile long corridor on BLM administered land in the southern portion of the permitted 640 acre project area. The purpose of the survey was for clearance for a proposed southern access route running southwest along an existing jeep trail to ultimately connect to the Hunt Highway. No cultural resources, prehistoric or otherwise, were identified along the proposed access route.

A literature search (Level I or Class I) of records at the Lower Sonoran Field Office was conducted for this EA, with a site investigation performed by a BLM archaeologist. Results of that survey indicate the sites identified in the previous surveys remained undisturbed.

A request was made to tribal historic preservation offices of the Gila River Indian Community, the Salt River Pima-Maricopa Indian Community, the Ak Chin Indian Community, the Tohono O'odham Nation and the Hopi Tribe for additional cultural information or areas of concern. Responses were received from the Tohono O'odham Nation, the Hopi Tribe and the Gila River Indian Community.

No Action Alternative

Under the No Action alternative, expansion of the Queen Creek Quarry site would not take place. Those sites identified as NRHP eligible as a result of the previously performed cultural surveys would not be affected. Those sites have been fenced off and mitigated by avoidance.

Proposed Action

A formal consultation response was received June 17, 2013, from The Hopi Tribe indicating the proposed mineral material contract is unlikely to directly affect the five eligible prehistoric sites previously identified as long as mitigation by avoidance is maintained.

Mr. Peter Steere, the Tribal Historic Preservation Officer of the Tohono O'odham Nation (Nation) responded via email, concurring with the recommendation of avoidance of the five sites, with installation of barriers to prevent accidental disturbance from inadvertent public access from the surrounding residential complexes.

In response to the consultation letter sent to the Gila River Indian Community Tribal Historic Preservation Office (GRIC-THPO), a site tour of the project area was scheduled August 8, 2013. Mr. Barnaby Lewis, Tribal Historic Preservation Officer, and Mr. Larry Benallie, Archaeological Compliance Specialist, toured all previously identified sites with representatives from both the proponent and the BLM. As a result of the site visit, Mr. Lewis also concurred that mitigation by avoidance should be maintained for all four eligible sites. Although current excavations, as well as the proposed expansion areas, do not encroach upon these areas, if operations were to expand closer, the GRIC-THPO recommends a 300 ft. buffer be erected around the sites to alert quarry operators to their proximity. This

could include construction fencing, or other appropriate barrier fencing. If operations were to encroach upon the sites, Mr. Lewis also recommended an archaeologist be present during those activities to monitor the preservation of the sites, as well as to inspect the sites monthly in order to confirm continued avoidance.

Although the Proposed Action would have no direct impacts, increased access and personnel in the vicinity of the proposed project could indirectly impact unknown Native American resources ranging from illegal collection to vandalism.

The National Historic Preservation Act (NHPA) requires that if newly discovered cultural resources are identified during project implementation, work in that area must stop and the BLM notified immediately (36 CFR 800.13). The Native American Graves Protection and Repatriation Act (NAGPRA), requires if inadvertent discovery of Native American Remains or Objects occurs, activity must cease in the area of discovery, a reasonable effort be made to protect the item(s) discovered, and immediate notice made to the BLM, as well as the appropriate Native American group(s) (IV.C.2). Notice may be followed by a 30-day delay (NAGPRA Section 3(d)). Further actions also require compliance under the provisions of NHPA and the Archaeological Resource Protection Act.

Avoidance is recommended for all NRHP eligible sites within the project area. The proponent will work with BLM to keep the local public from driving into the area from new developments adjacent to the project area. Standard and special stipulations will be attached to any new contract in order to protect cultural resources identified within the project area.

Socioeconomic Values

Affected Environment

In the public scoping process, some members of the public expressed concern whether or not the presence of the quarry may have a potential negative impact on the value of surrounding homes. There are currently three subdivisions adjacent to or near the project area and one private parcel for which residential development is reasonably foreseeable (Gem Land and Cattle, LLC). Other lands adjacent to the project parcel include Arizona State Trust Lands and a private parcel owned by the applicant. The parcels for which development has occurred include single-family homes.

Analysis Methodology & Assumptions

A literature review was conducted, researching how quarries affect adjacent residential property values. The following summarizes the literature:

- “A properly developed and operated rock quarry operation should not have a significant effect, either positively or negatively, on the value of housing units adjacent to the quarry property (Rabianski & Carn, 1987).” Further, this effect can vary based on visibility of mining operations from the private residences, and presence of other mining-related “nuisance” activities, such as

air pollution/dust; traffic and hazards related to the mining operations; and noise pollution and vibrations from blasting (Rabianski & Carn, 1987).

- “Based on . . . analysis of relevant data, proximity to aggregate mines is not a deterrent to development, does not cause diminution in value, and does not result in neighborhood characteristics that are incompatible with residential or other uses (Willingham Associates, Inc. Valuation Experts, 2002).”
- Several studies also concluded that having open space or wooded lots between housing developments and a quarry have a positive impact on home values and mitigate any potential negative impacts of the quarry operations.
- Using a hedonic pricing model, one researcher found that a *new* gravel mine can affect nearby residential home values as much as 30 percent (Erickcek, 2006).

Based on the literature review, the following analytical assumptions were made in order to assess the potential impacts of the proposed action and alternative on adjacent residential property values.

- The effect on home values is a function of distance from the mine and operations.
- Since the mine and its operations have been in place before the residential development began, any effect on the value is embedded into the current home / property values. The renewal of the mining permit under the same terms and conditions would have no net effect on the property values.
- Expansion of the mine and its operations could negatively affect property values, as it would effectively bring the mine and its operations closer to the residential properties.

The impact indicator for this analysis is change in distance from homes/properties to the active mining operations,

<i>Table 2. Private land and distance to active/proposed mining operations</i>		
Community/Parcel Name	Community Characteristics	Distance from current mining operations
Wildhorse Estates	75, 1-acre home-site development. Initiated in 2005 Separated from mine by railroad.	2000 feet
Crestfield Manor	600 home-site development on 150 acres Initiated in 2006	2000 feet
Magic Ranch	Magic Ranch	3900 feet
Anthem at Merrill Ranch	New homes selling from \$119,990-\$212,372	5280 feet
Gem Land and Cattle, LLC	Undeveloped, privately-owned land, potential home-site development Partially separated from project area by a wash	1300 feet

No Action

Under this alternative, the permit would not be issued and the mine would be reclaimed. This alternative would likely have the largest (positive) impact on home values, though the magnitude of positive impact cannot be estimated based on the literature reviewed.

Proposed Action

Under the proposed action, active mining operations would expand up to 1000 feet from the edge of the BLM parcel. Active operations would expand to between 300 feet and 2,280 feet closer to adjacent land/homes. This translates to between 8 percent and 43 percent closer to mining operations from existing communities/parcels. Anthem at Merrill Ranch would see the greatest increase in proximity to the mining operations (bringing the project area almost a half-mile closer). Magic Ranch and the Gem Land and Cattle development would see the smallest reduction in distance from the mine (bringing the project less than one-tenth mile closer).

Community/Parcel Name	Present distance to Project Area	Proposed distance to project area	Change in distance	Percent change
Wildhorse Estates	2000	1200	800	40%
Crestfield Manor	2000	1200	800	40%
Magic Ranch	3900	3600	300	8%
Anthem at Merrill Ranch	5280	3000	2280	43%
Gem Land and Cattle, LLC	1300	1000	300	23%

I. Tribes, Individuals, Organizations or Agencies Consulted

Arizona State Land Department
Arizona Game and Fish Department
Pinal County Department of Planning and Development
Pinal County Air Quality Control District
Pulte Homes, Sun City Anthem at Merrill Ranch
Governor Gregory Mendoza – Gila River Indian Community
Mr. Larry Benallie – Tribal Historic Preservation Officer – Gila River Indian Community
Mr. Leigh J. Kuwanwisiwma, Director, Hopi Cultural Preservation Office
Mr. Peter Steere, Tribal Historic Preservation Officer, Tohono O’odham Nation
Ms. Caroline Antone, Cultural Resources, Ak Chin Indian Community
Mr. Brett L. Horvath, GEM Land and Cattle, LLC
Angela Chicoine

List of Preparers

Table 4 lists the members of the Interdisciplinary Team who participated in the impact analysis.

<i>Table 4. BLM Interdisciplinary Team</i>		
<i>Name</i>	<i>Title</i>	<i>Areas of Participation</i>
Karen Conrath	Geologist, LSFO	Project Lead, Minerals
Cheryl Blanchard	Archaeologist, LSFO	Cultural Resources, Native American Religious Concerns
Steve Bird, Tim Hughes	Natural Resource Specialist, LSFO	Wildlife, Threatened and Endangered Species
Andrea Felton	Rangeland Management Specialist, LSFO	Range
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Edward Kender	Field Manager, LSFO	Review

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Leah Baker
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