Draft Environmental Assessment

Buckeye Fire Station No. 3

Town of Buckeye

EMW-2009-FC-03256

August 2010

Federal Emergency Management Agency
Department of Homeland Security
Region IX
1111 Broadway, Suite 1200
Oakland, California 94607

FEMA

This document was prepared by

URS Corporation
7720 North 16th Street, Suite 100
Phoenix, Arizona 85020

23445868.00001

Tables

Figures

Appendices

Acronyms and Abbreviations

ADOT	Arizona Department of Transportation
ADWR	Arizona Department of Water Resources
AMA	Active Management Area
APE	Area of Potential Effect
ARRA	American Reinvestment and Recovery Act
ASTM	American Society for Testing and Materials
AZPDES	Arizona Pollutant Discharge Elimination System
AZSITE	Arizona Cultural Resource Inventory
BMP	Best Management Practice
CAP	Central Arizona Project
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEQ	Council on Environmental Quality
C.F.R.	Code of Federal Regulations
CAA	Clean Air Act
CO	carbon monoxide
EA	Environmental Assessment
EMS	Emergency Medical Services
EO	Executive Order
EPA	U.S. Environmental Protection Agency
FEMA	Department of Homeland Security's Federal Emergency Management Agency
GCR	General Conformity Rule
HVAC	heating, ventilation, and air conditioning
I-10	Interstate 10
MBTA	Migratory Bird Treaty Act
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NFPA	National Fire Protection Association
NHPA	National Historic Preservation Act
NO_2	nitrogen dioxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O_3	ozone
OSHA	Occupational Safety and Health Administration

$PM_{2.5}$	particulate matter less than 2.5 micrometers in diameter
PM_{10}	particulate matter less than 10 micrometers in diameter
REC	recognized environmental conditions
RCRA	Resource Conservation and Recovery Act
SHPO	State Historic Preservation Officer
SO	sulfur dioxide
SR	State Route
Town	Town of Buckeye
tpy	tons per year
URS	URS Corporation
USACE	United States Army Corps of Engineers
U.S.C.	United States Code
USFWS	U.S. Fish and Wildlife Service
VOC	volatile organic compound

SECTION ONE INTRODUCTION

The Town of Buckeye (Town), Arizona, has applied to the Department of Homeland Security's Federal Emergency Management Agency (FEMA) for Federal financial assistance (Federal action) to construct and operate the Buckeye Fire Station No. 3 Project (Proposed Project) in Buckeye, Arizona (Figure 1 [Appendix A]). The assistance would be provided to the Town—as the grantee—through the Assistance to Firefighters Fire Station Construction Grant Program. The grantee's proposal consists of constructing a new fire station, known as Fire Station No. 3.

FEMA has prepared this Environmental Assessment (EA) to evaluate the impacts of the grantee's proposal. The EA has been prepared according to the requirements of the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. §§ 4321–5327), the Council on Environmental Quality's (CEQ's) regulations implementing NEPA (40 C.F.R. Parts 1500–1508 [2009]), and FEMA's implementing regulations (44 C.F.R. Part 10). FEMA is required to consider potential environmental impacts on the quality of the human environment before funding or approving actions and projects. The purpose of this EA is to analyze the potential environmental impacts of the Buckeye Fire Station #3. FEMA will use the findings in this EA to determine whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

The EA process provides steps and procedures for evaluating the potential environmental, social, and economic impacts of the Proposed Project and its alternatives. The potential impacts of the Proposed Project and its alternatives are measured by their context and intensity, as defined in CEQ regulations. The EA process includes an opportunity for the public and local, State, and Federal agencies to provide input during a public comment period.

SECTION TWO PURPOSE OF AND NEED FOR ACTION

The Assistance to Firefighters Fire Station Construction Grant Program (CFDA 97-115) is authorized by the American Reinvestment and Recovery Act (ARRA) of 2009 (Public Law 111-5) to fund the construction and modification of fire stations. The program is administered by the Assistance to Firefighters Program Office under FEMA's Grant Programs Directorate. The grants under this new program are awarded directly to fire departments on a competitive basis.

An existing fire station, Fire Station 703, is located within the Verrado master planned community (previously known as Whitestone) in Buckeye and serves the development and the surrounding community. The existing fire station is inadequate, is not compliant with National Fire Protection Association (NFPA) standards, and has outstanding Occupational Safety and Health Administration (OSHA) issues identified in past inspections. In addition, access to the existing fire station is a substantial problem for both the public and the fire department. Therefore, the purpose of the Federal action is to provide Federal financial assistance to the Town to address public health and safety concerns through the construction of a new fire station.

The project area is located in the Verrado master planned community in Maricopa County, Arizona (Figure1 [Appendix A]). The Verrado master planned community is located north of Interstate Highway 10 (I-10), and east and south of the White Tank Mountains. The project area is in Sections 20 and 31 of Township 2 North, Range 2 West of the Gila and Salt River Base Line and Meridian as shown on the Valencia, Arizona, U.S. Geological Survey 7.5-minute topographic quadrangle. The existing fire station is located on the northwest corner of Indian School Road and Jackrabbit Trail. The proposed new fire station is located at 2582 N. Verrado Way on the northwest corner of Verrado Way and Point Ridge Road.

The Verrado master planned community encompasses approximately 8,800 acres of land with a build out potential of 14,080 homes and 63,360 residents, and approximately two million square feet of zoned office property. The development would include an office complex, a shopping center, and medium-density residential areas.

The existing fire station occupies a former equipment proving ground building. The fire station is part on a complex of four building occupied by Verrado Corporation, construction companies, building contractors, and maintenance/landscape companies. The fire station building is divided into three sections; the first section is vacant; the second section is the living quarters for the fire station; and section three is an apparatus bay. The fire department occupies four of the eight bays in this section; construction equipment owned by other building occupants is housed in the other four bays.

Beginning in 2003, the Town has relied heavily on building permits and fees to fund the Town's budget, including fire department expenditures. Since 2008 new building construction has dropped substantially. As a result, a large portion of the Town's revenue from new building permits and fees has also dropped. The Town's budget decreased from $217,744,216 for fiscal year 2008-09 to $167,194,828 for fiscal year 2009-10, a near 30% reduction. The fire department

budget for fiscal year 2009-10 is $7,672,392, 90% of which is allocated to personnel and benefits, leaving inadequate funding for the $5.1 million needed for construction of a new fire station. With a depressed housing industry, the Town has no reasonable expectations of a substantial upswing in revenues. Due to this reduction in the Town's budget, construction of a new fire station would not be funded by the Town without Federal financial assistance.

Repairs to the existing fire station would be costly and impractical. The Town does not own any portion of the building or the parcel on which the fire station resides. The current land owner plans to develop the property for residential housing making long-term occupancy of the building impossible.

The existing fire station is located on the outer perimeter of the Verrado master planned community (Figure 1 [Appendix A]). This location is on the outside perimeter of the intended service area and far from the community the fire station is intended to serve. From the current location, only fifty percent of the stations response area can be reached within the targeted response time of five minutes or less. Furthermore, because the fire station is near the boundary with the Town of Goodyear, the response area overlaps with two Goodyear fire stations, which reduces the effectiveness of the regional fire response system.

The existing fire station is not compliant with NFPA and OSHA standards. Violations of NFPA standards include: lack of dedicated emergency vehicle egress (paved driveway to the fire station is shared with Verrado Corporation employees, construction companies, building contractors, and maintenance/landscape companies), lack of an Emergency Medical Services (EMS) supply room (EMS supplies are currently stored in the fire station day room); lack of a working hardwired smoke detector or carbon monoxide detection system (fire station is installed with battery operated smoke detectors which doesn't meet NFPA standards and lack carbon monoxide detectors entirely); and lack of a designated onsite decontamination area for firefighters' protective clothing, EMS equipment, and emergency vehicle (currently crews must travel to other fire stations with these facilities resulting in extended periods of time that crews are out of their response area and increasing the need for auto aid coverage from other fire stations; therefore, drawing resources of auto aid neighbors and decreasing the efficiency of the regional emergency response system). The first and second sections of the building are not protected by a fire sprinkler system as stated in OSHA standard CPR 29, 1910.164.

In March of 2008, an environmental study (2009 Town of Buckeye) identified several safety and health concerns associated with the existing fire station. The study found mold spores present in several sections of drywall and in the air conditioning ductwork. Elevated levels of sewage coliform bacteria were also found in the kitchen and sleeping areas.

Access from the existing fire station to Indian School Road is provided by a two-lane paved driveway. The driveway is used for both public and fire department access. Vehicle congestion on the narrow driveway is a problem for fire crews entering and exiting the station. The driveway allows for two-way traffic which delays emergency vehicle egress during an emergency response, increasing response time, and increases the possibility of vehicle collision.

The driveway is at a steep grade resulting in poor vehicle sighting distance along the driveway and at the intersection with Indian School Road, further delaying emergency vehicle egress, increasing response time, and increasing the possibility of vehicle collision.

The structure of the building obstructs visibility of oncoming traffic for fire crews exiting the apparatus bays. In addition, there are no formal designated employee parking areas, which has resulted in access conflicts for fire employees and other workers that share the facility. The fire station vehicle bays do not have fire protection and only one bay is a drive through, which results in damage to trucks from having to back into the bays. There are recurring problems with the equipment bay doors' attempts to repair and replace the doors and openings have been largely unsuccessful due to the age and condition of the building. The bays do not have an environmental control system to regulate temperature which has affected the computer systems in the fire trucks. The current area used for the apparatus bays has cracks and divots in the floor, creating an uneven surface that is difficult to traverse and maintain.

The Town has identified the need to construct a new fire station in order to improve and enhance fire service capability within the Verrado master planned community and other nearby facilities. Construction of a new fire station would improve response times in the target area, allow the Town to meet NFPA and OSHA standards, and improve fire station employee safety and health. In addition, as a result of difficult economic conditions and a shrinking Town budget, construction of a new fire station would not be funded by the Town without Federal financial assistance. Therefore, the Town has requested Federal financial assistance to fund the construction of Buckeye Fire Station #3.

.

SECTION THREE ALTERNATIVE ANALYSIS

The Town proposes to replace the existing fire station with a new fire station to enhance service delivery and response times and to improve employee health and safety. The new fire station would reduce response times, provide a NFPA compliant facility, provide improved facilities for employees, and improve public health and safety. The Town considered the No Project Alternative and Proposed Project Alternative.

3.1 ALTERNATIVES CONSIDERED AND DISMISSED

During the planning stages of the Verrado master planned community and prior to the preparation of this environmental document, additional alternatives for the fire station were considered. As part of the Town's approval of the Verrado Master Plan, the developer, DMB Associates, would deed a parcel to the Town for construction of a new fire station. Beginning in 2005, the Town and DMB Associates held meetings to discuss the location of the new fire station. Site locations were considered based on the Town's established criteria of response times, main artery road access, highway access, commercial area access, and proximity to high population density areas. Site locations other than the proposed project were determined to not meet the Town's criteria and were eliminated from further consideration. Improvements to the existing fire station were considered but eliminated because the existing location did not meet the Town location criteria and the parcel has sold and is slated for development.

3.2 ALTERNATIVE 1: NO PROJECT

A No Project Alternative is required to be included in the environmental analysis and documentation under NEPA. The No Project Alternative is defined as maintaining the status quo, with no FEMA financial assistance for any alternative. The No Project Alternative is used to evaluate the effects of not providing eligible assistance for the project; thus, this alternative provides a benchmark against which other alternatives may be evaluated. For the purpose of the environmental analysis, under the No Project Alternative, it is assumed that no improvements would be made. The Buckeye Fire Department would also continue to operate in a facility that does not meet NFPA and OSHA standards.

3.3 ALTERNATIVE 2: GRANTEE'S PROPOSAL (PROPOSED PROJECT)

The Proposed Project consists of replacing the existing fire station with a new fire station. This alternative is referred to as the Proposed Project because it is the alternative that the Town proposed to FEMA for financial assistance.

The Proposed Project was selected because it meets the Town's site selection criteria. The Proposed Project would be centrally located within the Verrado master planned community and located on Verrado Way, the main artery road for the community. The central location would

provide more efficient coverage of the service area and reduce response times. The location provides immediate access to I-10, commercial and retail property, and high population density areas. New fire station design would meet NFPA and OSHA standards. Designated onsite decontamination area for firefighters' protective clothing, EMS equipment, and emergency vehicle would be provided.

Completion of the Proposed Project would be expected to take approximately 9 months. The Town plans to commence construction between September and December 2010.

The existing fire station would be vacated by the Town, which doesn't have ownership of the parcel or the building. Planned future development of the parcel for residential housing would continue.

The components of the Proposed Project include:

- Fire station #3 would be constructed on 1.3 acres of land owned by the Town that is zoned for a fire station.
- The replacement fire station would be a 2 story 14,671 square feet facility with 4 bays for fire department vehicles. It would include a fitness room, kitchen, dining room, lobby, captain's office, one public bathroom and one employee bathroom, as well as quarters and offices for a command staff including a dayroom, a bathroom/shower facility, ten dorm rooms, and training and classroom facilities.
- A technical rescue team would be sited at the fire station.
- The fire station bays would house a command staff vehicle, engine and ladder company, EMS vehicle, and space for an additional engine, rescue or ladder tender.
- The fire station bays would house a janitor's closet, workshop, decontamination room, a ventilated turnout room; and a heating, ventilation, and air conditioning (HVAC) system that would both cool the bay and remove vehicle exhaust from the bays.
- A fire suppression sprinkler system and smoke and carbon monoxide detectors compliant with NFPA and OSHA standards would be installed.
- The station would contain an above ground fueling facility.
- The station design is a compressed footprint matching the overall design of the Verrado master planned community development to minimize the disturbed area and increase open spaces for parks and landscaping.
- Sidewalks and entryways for driveways into the fire station are currently in place.

A site plan for the Proposed Project is shown on Appendix C Engineering Plans. Photographs of the proposed project area are included as Photographs 1, 2, and 3 (Appendix A).

SECTION FOUR AFFECTED ENVIRONMENT, IMPACTS, AND MITIGATION

The analysis presented in this chapter focuses on the resource areas where some level of impact could result from the implementation of the alternatives, including geology and soils, seismicity, water resources, biological resources, historic properties, air quality, noise, traffic, hazardous materials, and environmental justice. No other resource areas have been identified that would require further evaluation pursuant to NEPA.

4.1 LAND USE

The project area is located within the incorporated limits of the Town, on land owned by the Town. The fire station parcel was deeded to the Town by DMB Associates as part of the approval conditions for the Verrado Master Plan.

Land use within and adjacent to the project area includes transportation, commercial, residential, recreation, and institutional. Transportation land uses include roadways within the project area including Verrado Way and I-10. Commercial uses are present in the project area and include retail shops, restaurants, and office space approximately 1.5 miles north of the Proposed Project site. Verrado master planned community has approximately 7,000 existing residential units in the service area of the Proposed Project. Undeveloped residential development is located immediately adjacent to the Proposed Project site. The Raven Golf Course is a recreational use within the project area. The White Tanks Regional Park is adjacent to the project area on the west and north. Institutional land uses within the project area include the Verrado High School and Verrado Middle School, located approximately 2 miles north of the Proposed Project site on Indian School Road. Vacant land in the form of undeveloped residential housing constitutes about one-half of the project area.

The *Town of Buckeye General Plan (*2007) and the *Verrado Master Plan* (DMB Associates 2005) identifies future development and growth within the project area. Verrado master planned community has a build out potential of approximately 14,000 residential units. The master plan identifies approximately 20 neighborhood parks and open space facilities. The Town has identified future commercial development in the vicinity of the I-10 interchange with Verrado Way. Banner Health Inc. has proposed the construction of a hospital facility in the Verrado master planned community north of I-10 and Verrado Way.

4.1.1 Alternative 1: No Project

Under the No Project alternative, no improvements or construction would occur. No change would occur to existing land use or development patterns. Because the existing land uses are expected to continue, land use within the project area would continue to be compatible with adjacent land use and consistent with the Town's General Plan and Verrado Master Plan. Although the No Project Alternative would not preclude future development, existing delays in

emergency response time and inadequacies with the existing fire station building would continue to occur. Future planned development of the existing fire station parcel would continue.

Therefore the No Project Alternative would result in negligible long-term indirect impacts to land use.

4.1.2 Alternative 2: Proposed Project

Implementation of the Proposed Project would not require acquisition of new Town owned property. As part of the Town's approval of the Verrado Master Plan, the developer, DMB Associates, would contribute land for the fire station and incorporate the appropriate lane use designation into the Verrado Master Plan. On January 23, 2007 the Town Planning and Zoning Board approved the site plan for the new fire station (SP06-69). On December 16, 2008, the Town Council approved Consent Agenda Item 5C for the Special Warranty deeds conveying the property to the Town.

No displacements or relocations would be required for implementation of this alternative. During construction, the Town would ensure that access is maintained to all adjacent properties, and to Point Ridge Road and Verrado Way. After construction is complete, current land uses would continue.

Future planned development of the existing fire station parcel would continue.

Under the Proposed Project, the Town would cease occupancy of the existing fire station building, which doesn't have ownership of the parcel or the building. Development of the parcel for residential housing would continue.

Therefore, the Proposed Project would result in negligible short-term direct impacts and long-term indirect impacts to land use.

4.2 GEOLOGY AND SOILS

The project area is located at the western edge of the Central Arizona Basin and Range physiographic province, adjacent to the Transition Zone physiographic province. The Central Arizona Basin and Range physiographic province extends from southeastern Arizona to northwest Arizona and into the southern portion of California and Nevada. The dominant landforms of the province are north-south trending mountain ranges and broad sediment filled valleys (University of Arizona 2010). The Basin and Range is also a physiographically diverse area characterized by expansive playas and open grassland basins cut by steep, rugged mountains, mesas, and canyon terrain. The project area is located south and east of the White Tank Mountains.

The primary soil type in the project area is Carrizo soils, which are formed in mixed alluvium, are very deep and excessively drained, and occur on slopes ranging from 0 to 5 percent and

elevations from 1,000 to 2,200 feet. Carrizo soils are a mix of gravelly sand, gravel, course sand, cobbles, and stones (NRCS 1986).

4.2.1 Alternative 1: No Project

The No Project Alternative would not affect geology or soils.

4.2.2 Alternative 2: Proposed Project

Under the Proposed Project, ground-disturbing activities would consist of site preparation, construction of the new fire station, and the planting of trees and shrubs. Site grading is anticipated to result in approximately 1.3 acres of soil disturbance. Ground-disturbing activities would occur in areas previously graded and cleared of vegetation which occurred as part of the overall site preparation for the Verrado master planned community.

During construction, activities such as grading, building construction, and use and transport of heavy equipment can disturb and expose soils, resulting in an increased susceptibility to water and wind erosion. Areas that would be disturbed by construction activities would be stabilized with erosion-control measures. The Town would also employ best management practices (BMPs) such as installing silt fences or mulching cleared soil to eliminate or reduce soil erosion during construction. The Town would be responsible for covering spoil piles or watering existing soils, as necessary to minimize soil loss from surface runoff and wind erosion. The Town would also implement permanent erosion-control measures that minimize the potential for long-term erosion and are consistent with EO 13112 and the Verrado Master Planned Community Plan of Development. With the implementation of these measures, impacts to soils and geology as a direct result of construction would be minimal and temporary.

The construction of the fire station would result in minor short-term direct and indirect impacts on soils.

4.3 SEISMICITY

The Town is in a relatively inactive seismic area (Arizona Earthquake Information Center 2008). However, the National Earthquakes Hazard Reduction Program—a Federal interagency program established by the Earthquake Hazards Reduction Act of 1977—has designated Arizona as a "high risk" state for earthquakes (Bausch and Brumbaugh 1996). The maximum intensity ground shaking and earthquake damage for the Town was rated as Intensity V on the Mercalli scale. An intensity level of V is associated with a 4–4.9 magnitude earthquake and is described as being felt by nearly everyone, with an intensity that would be expected to awaken many, break some dishes and windows, and overturn unstable objects (ADEM 1999).

Executive Order (EO) 12699, Seismic Safety of Federal and Federally Assisted or Regulated New Building Construction, requires newly constructed buildings to meet standards for seismic safety set by the National Earthquake Hazard Reduction Program. Executive Order 12699

applies to construction of the fire station because it would be used for sheltering persons or property.

4.3.1 Alternative 1: No Project

Under the No Project Alternative, there would be no change to the current risk of seismic events damaging the facilities because no new building would be constructed. The existing fire station is housed in a fifty-year-old building which doesn't meet Federal seismic safety standards. Continuing to house the fire station in the current building possesses a potential risk should a seismic event occur in the region.

4.3.2 Alternative 2: Proposed Project

Under the Proposed Project, the potential for earthquakes would remain unchanged. The new fire station would be constructed to meet applicable building codes. If the fire station were damaged as a result of seismic activity, the most likely failure would be deformation of the building structure and underground water and gas lines which would disrupt emergency services. The Town has emergency response plans in place that provide contingency for continued emergency service in the event of a disaster. Additionally, the frequency and magnitude of seismic events in the region is very low, further diminishing the risk of damage.

Implementing the Proposed Project would improve emergency response time; thereby provided emergencies services quicker and more efficiently, and reducing the public health and safety risk from a seismic event. Demolition of the existing fire station building would eliminate that risk of injury or damage from building failure should a seismic event occur.

Therefore, damage to the fire station building and underground pipelines caused by seismic activity would not pose a major risk to people or structures in the vicinity. Implementation of the Proposed Project would provide long-term improvement to public health and safety through improved emergency response capabilities.

4.4 WATER RESOURCES

The project area is located within the Phoenix Active Management Area (AMA). The Phoenix AMA is located in central Arizona, covers 5,646 square miles, and consists of seven groundwater basins (Arizona Department of Water Resources (ADWR) 2010). The Phoenix AMA is characterized by a diverse mix of water uses, with a heavy and increasing emphasis on municipal and industrial uses. Multiple sources of water (e.g., Central Arizona Project (CAP), Salt and Verde River surface water, effluent and groundwater) are available and are being used to varying degrees. An average of 2.3 million acre feet of water is used annually in the Phoenix AMA.

Hydrology and water resources in the project area are heavily influenced by area rainfall and geology. Precipitation is 7 inches annually. Precipitation is bimodal, occurring as winter rain and

high intensity summer thunderstorms, with more than half of the annual precipitation falling during the winter. Storm flows are generally transported through the project area in constructed drainage channels and unnamed ephemeral washes. The project area is located in the Middle Gila watershed (Hydrologic Unit Code 15050100).

4.4.1 Water Quality and Hydrology

The Clean Water Act of 1977 (CWA) (33 U.S.C. §§ 1251 et seq. [2008]) established a mechanism for regulating discharges of pollutants into waters of the Unites States (WOUS) and quality standards for surface waters. Under Section 404 of the CWA, a permit must be obtained from the U.S. Army Corps of Engineers (USACE) prior to discharging dredged or fill materials into WOUS, unless the activity is exempt from Section 404 regulation or doesn't involve fill activities. Section 401 of the CWA requires certification that any activity authorized under Section 404 of the CWA is in compliance with State water quality standards, effluent limits, and other applicable State laws. In Arizona, Section 401 certification is administered by the U.S. Environmental Protection Agency (EPA), the Arizona Department of Environmental Quality (ADEQ), or certain tribal governments, depending on the location and type of a permitted activity. Section 402 of the CWA established the National Pollutant Discharge Elimination System Permit Program, which permits the discharge of pollutants into surface water; on non-tribal lands in Arizona, this permit program is administered by ADEQ under the Arizona Pollutant Discharge Elimination System (AZPDES) Permit Program.

Many of the surface water channels in the project vicinity have been altered by the Verrado master planned community. Construction of a stormwater drainage system to support the development has altered natural drainages into channelized stormwater drainages. As a result, there are no natural drainages on the Proposed Project site, or at the existing fire station location.

The fire station would use municipal water and sanitary sewer systems developed for the Verrado master planned community. No groundwater wells or sewer septic tanks would be needed. Stormwater from the fire station site would be conveyed to the Verrado master planned communities storm drainage system.

4.4.1.1 Alternative 1: No Project

The No Project Alternative would result in no change to existing water quality or hydrology, and would therefore have no impact on this resource.

4.4.1.2 Alternative 2: Proposed Project

The Proposed Project would not affect groundwater or surface water quality. Potable water would be delivered through the municipal water system and wastewater collected in the sanitary sewer system. Stormwater runoff would be conveyed to the stormwater drainage system.

The Verrado master planned community was issued a Section 404/401 Clean Water Act permit (Permit No. 974-0218-RWF) to impact a total of 41.40 acres of waters of the United States during the course of constructing the Verrado master planned community (Appendix B). The Section 404/401 permit covers the construction of road crossings, driveways, utility lines, trail crossings, building pads, and re-channelization activities. Construction of the Proposed Project would be covered under the terms of this existing Section 404/401 permit for the development (Permit No. 974-0218-RWF). The closest Section 10 waters of the U.S. to the Proposed Project is the Colorado River, at more than 100 miles to the west, this waters would not be impacted by the Proposed Project. Furthermore, based on the area of the proposed disturbance, an AZPDES permit and an associated Storm Water Pollution Prevention Plan (SWPPP) are anticipated to be required for the construction of the Proposed Project. The SWPPP would incorporate temporary erosion-control measures during construction, permanent erosion control measures when the project is completed, and BMPs for the control and prevention of release of water pollutants. The Town will obtain the necessary permits in compliance with Section 402 of the CWA (33 U.S.C. § 1342 [2008]) from ADEQ, which would address any pollutants that could be discharged into the water system during construction.

To minimize potential impacts to water quality as a result of sedimentation from construction, the Town will follow BMPs such as using silt fences, covering spoil piles, watering areas of disturbed soil, staging equipment along existing roads—where feasible—and keeping equipment properly maintained. Any excess materials from excavation, grading, or trenching will be disposed of in compliance with all applicable local, State, and Federal regulations. The Town will not deposit any excess materials in watercourses, wetlands, or floodplains. No staging or storage of construction equipment or materials will occur in waters of the United States.

Decontamination facilities will assure that any potentially harmful or dangerous residues on persons, equipment, or apparatus are confined to prevent the spread of contaminants. Runoff or residue from decontamination procedures will be contained and retained for proper disposal. Fire suppression chemicals will be handled and disposed of according to NFPA and OHSA standards, and will therefore not result in impacts on water quality. The onsite fueling facility will meet NFPA and OSHA standards and not impact water quality.

The existing fire station building would remain until developed for residential use. Abandonment of the existing fire station building would not impact water quality and hydrology resources. Operation of the Proposed Project is estimated to use approximately 17,000 gallons per month. The Verrado Master Plan (DMB Associates 2005), approved by the Town, includes water use for the entire master planned community including water allocations for the Proposed Project. Water use for Proposed Project is consistent with approved plans and would have no long-term impact on water resources.

Therefore, the Proposed Project would have minor short-term direct impacts from construction and no long-term impacts on water quality and hydrology from operation of the facility.

4.4.2 Executive Order 11988: Floodplain Management

EO 11988, Floodplain Management, requires Federal agencies to take action to minimize occupancy and modification of floodplains. EO 11988 also requires that Federal agencies proposing to fund a project sited in a 100-year floodplain consider alternatives to avoid adverse effects and incompatible development in the floodplain. FEMA's regulations implementing EO 11988 are codified in 44 C.F.R. Part 9 (2008).

The Town participates in FEMA's National Flood Insurance Program (NFIP). Thus the Town has promulgated and enforces a floodplain ordinance at least as stringent as the NFIP and its implanting regulations (44 C.F.R. Parts 59 through 77). According to the FEMA Flood Insurance Rate Maps for the region, as shown on panels 04013C2035H and 04013C2055G, dated September 30, 2005, the Proposed Project site and existing fire station facility are Flood Zone X (Appendix D). Zone X is composed of areas determined to be outside the 500-year floodplain and in a low-risk flood area.

4.4.2.1 Alternative 1: No Project

The No Project Alternative would not alter the existing conditions and would therefore have no impact on the floodplain.

4.4.2.2 Alternative 2: Proposed Project

The Proposed Project would not result in modifications to, occupation of, or otherwise affect the 100-year floodplain. The Proposed Project is in compliance with EO 11988 and 44 C.F.R. Part 9. Therefore, the Proposed Project would have no short- or long-term impact on the 100-year or 500-year floodplain.

4.4.3 Executive Order 11990: Protection of Wetlands

EO 11990, Protection of Wetlands, requires Federal agencies to take action to minimize the destruction or modification of wetlands by considering both direct and indirect impacts to wetlands. Furthermore, EO 11990 requires that Federal agencies proposing to fund a project that could adversely affect wetlands consider alternatives to avoid such effects. FEMA's regulations implementing EO 11990 are codified in 44 C.F.R. Part 9. Based on site reconnaissance of the Proposed Project site and existing fire station facility conducted by FEMA's consultant on April 1, 2010, and review of the applicable National Wetland Inventory maps, no wetlands are located in the project area.

4.4.3.1 Alternative 1: No Project

Under the No Action Alternative, no impacts would occur to wetlands because no wetlands occur in the project area.

4.4.3.2 Alternative 2: Proposed Project

The Proposed Action would not impact wetlands because no wetlands occur in the project area; therefore, the Proposed Action complies with EO 11990.

4.5 BIOLOGICAL RESOURCES

Native plant communities in the project vicinity are characterized as Arizona Upland Desertscrub (Brown 1994). This plant community occurs on hillsides, mesas and upper bajadas in southern Arizona and extreme southeastern California. The vegetation is characterized by sparse, emergent tree layer of saguaro cacti (*Carnegia gigantean*) and/or a sparse to moderately dense canopy codominated by foothills paloverde (*Parkinsonia microphylla*) and creosote bush (*Larrea tridentate*) with mesquite (*Prosopis* sp.), ironwood (*Olneya tesota*), and ocotillo (*Fouquieria splendens*) less prominent. The Proposed Project occurs in an area previously disturbed by construction and cleared of vegetation.

4.5.1 Endangered Species Act

Section 7 of the Endangered Species Act of 1973 (16 U.S.C. § 1536 [2008]) requires Federal agencies to determine whether projects that they propose to undertake or fund have any potential to affect species listed or proposed for listing as threatened or endangered or their designated critical habitat. To determine the potential for federally listed endangered, threatened, or proposed species or designated critical habitat to occur in the project area, FEMA reviewed the U.S. Fish and Wildlife Service (USFWS) list of federally listed species for Maricopa County, Arizona (USFWS 2010). No designated critical habitat exists in the Proposed Project area. To evaluate the potential for the project site to provide suitable habitat for federally listed and USFWS-sensitive species, FEMA's consultant conducted a reconnaissance field survey on April 1, 2010. During the site visit, no federally listed species, species proposed for Federal listing, or areas of suitable habitat for such species were observed. The project area is either clearly outside the known geographic or elevation range or does not contain habitat characteristics known to support federally-listed species.

4.5.1.1 Alternative 1: No Project

Under the No Project Alternative, there would be no effect to listed, proposed, or candidate species because no listed species or habitat occurs in the project area.

4.5.1.2 Alternative 2: Proposed Project

FEMA initiated consultation with the USFWS for the Proposed Project on February 5, 2010. FEMA determined that habitat for the endangered lesser long-nosed bat (*Leptonycteris curasoae yerbabuenae*) may occur in the project area. FEMA determined that the Proposed Project would not likely adversely effect the lesser long-nosed bat or other federally listed species. In a letter

dated April 13, 2010, USFWS concurred with FEMA's determination and recommended no further action for the Proposed Project.

Therefore, the Proposed Project would have no affect on any threatened or endangered species, and this alternative complies with Section 7 of the Endangered Species Act.

4.5.2 Migratory Birds and Sensitive Species

The Migratory Bird Treaty Act (16 U.S.C. §§ 703–712 [2008]) implements various treaties and conventions between the U.S. and Canada, Japan, Mexico and the former Soviet Union for the protection of migratory birds. Under the Act, taking, killing or possessing migratory birds is unlawful. The statute makes it unlawful to pursue, hunt, take, capture, kill or sell birds listed therein ("migratory birds"). The statute does not discriminate between live or dead birds and also grants full protection to any bird parts including feathers, eggs and nests. Over 800 species are currently on the list (50 CFR 10.13). A take does not include habitat destruction or alteration, as long as there is not a direct taking of birds, nests, eggs, or parts thereof.

The Arizona Game and Fish Department (AGFD) maintains a list of Wildlife Species of Concern (WSC) in Arizona. Arizona state law (A.R.S. Title 17) prohibits unlawful take or injury of state protected wildlife.

To determine the potential for federally protected migratory birds or to occur in the project area, FEMA reviewed the USFWS list of federally listed migratory bird species for Maricopa County, Arizona and accessed the AGFD Environmental Online Review Tool (AGFD 2010). To evaluate the potential for the project site to provide suitable habitat for federally listed migratory birds and WSC, FEMA's consultant conducted a reconnaissance field survey on April 1, 2010. During the site visit, no federally listed migratory bird species, WSC, or areas of suitable habitat for such species were observed. The project area is either clearly outside the known geographic or elevation range or does not contain habitat characteristics known to support federally listed migratory bird species or WSC.

4.5.2.1 Alternative 1: No Project

Under the No Project Alternative, there would be no effect to federally listed migratory bird species or WSC because no listed species or habitat occurs in the project area.

4.5.2.2 Alternative 2: Proposed Project

The Proposed Project site has been graded and vegetation removed; therefore, eliminating any potential occurrence of migratory birds and WSC. The Proposed Project would not affect federally listed migratory bird species or WSC because no listed species or habitat occurs in the project area.

Therefore, the Proposed Project would not affect any federally listed migratory species or WSC, and this alternative complies with the MBTA and Arizona State law protecting listed wildlife species.

4.5.3 Executive Order 13112: Invasive Species

EO 13112, Invasive Species, requires Federal agencies to prevent the introduction of invasive species; provide for their control; and minimize the economic, ecological, and human health impacts that invasive species cause. Specifically, EO 13112 requires that Federal agencies not authorize, fund, or implement actions that are likely to introduce or spread invasive species unless the agency has determined that the benefits outweigh the potential harm caused by invasive species and that all feasible and prudent measures to minimize harm have been implemented. To evaluate the invasive species potential, FEMA's consultant conducted a reconnaissance field survey on April 1, 2010.

4.5.3.1 Alternative 1: No Project

Under the No Project Alternative, there would be no effect to invasive species because no listed invasive species occurs in the project area.

4.5.3.2 Alternative 2: Proposed Project

The Proposed Project has limited potential to contribute to the spread of invasive species in the project area. The Proposed Project site is part of the larger Verrado master planned community project that was previously graded as part of the larger site development activities. The Town would implement revegetation of disturbed that minimize the potential for long-term erosion and are consistent with EO 13112 and the Verrado Master Plan. The Town would take measures to prevent the establishment of invasive weeds at the construction site by applying BMP's, including cleaning all equipment before bringing it onsite and using only certified, weed-free erosion control and revegetation materials.

The Proposed Project is therefore anticipated to result in negligible short-term direct and indirect impacts to invasive species.

4.6 HISTORIC PROPERTIES

Regulations implementing NEPA stipulate that federal agencies consider the consequences of their undertakings (such as providing federal funds for the proposed project) on historical and cultural resources (40 C.F.R. 1502.16[g]). Section 106 of the National Historic Preservation Act requires that federal agencies also consider the effects of their undertakings on properties eligible for the National Register of Historic Places (National Register). Regulations for *Protection of Historic Properties* (36 CFR 800) implement Section 106 by defining procedures for agencies to consult with the State Historic Preservation Officer (SHPO) and other consulting parties.

FEMA defined the area of potential effects (APE) as the approximately 1.3-acre parcel where construction of the proposed Buckeye Fire Station No. 3 could disturb historic properties that might be present. The APE is within the Verrado master planned community.

A cultural resource survey of the Verrado master planned community, including the fire station parcel and surrounding parcels, was conducted between 1998 and 2000 (Ellis et. al. 2004). Forty-eight archaeological sites were discovered during the survey. Twenty-five of those sites were evaluated as eligible for the National Register for their potential to yield important information (Criterion D) and the other 23 were evaluated as ineligible. None of the archaeological sites were located within the APE for the Proposed Project.

The proposed new fire station would replace the current fire station that is in a building that formerly housed a shop, maintenance facilities, and administrative offices for the Caterpillar Proving Ground. The building, which is more than 50 years old, has been highly modified and FEMA determined that the building is not eligible for the National Register.

In accordance with Section 106 of the National Historic Preservation Act, FEMA consulted with tribes with potential traditional cultural affiliations with the project area. FEMA contacted the Ak-Chin Indian Community, Fort McDowell Yavapai Nation, Gila River Indian Community, Salt River Pima-Maricopa Indian Community, San Carlos Apache Tribe, Tohono O'odham Nation, White Mountain Apache Tribe, and Yavapai-Apache Nation to inform them of the proposed project, request information regarding traditional cultural resources that might be located in the area of potential effects, and request comments about any concerns the tribes might have (Appendix B). None of the tribes identified any traditional resources or concerns about the project.

4.6.1 Alternative 1: No Project

The No Project Alternative would have no impacts on historic properties because no construction or other activities would occur that could potentially disturb historic properties.

4.6.2 Alternative 2: Proposed Project

The prior survey of the Verrado master planned community did not discover any archaeological or historical sites within the APE for the proposed Buckeye Fire Station No. 3, and the Proposed Project is not expected to affect any historic properties eligible for the National Register. The SHPO concurred with FEMA's determination in a letter dated February 5, 2010 (Appendix B).

If any archeological discoveries are made during construction, FEMA will require the Town to stop work at that location and take reasonable steps to avoid or minimize harm to the property and to notify FEMA. FEMA will notify and consult with the SHPO at the earliest possible time to develop actions to take into account the effects of the project on the discovered resources. If any discovery included human burials and associated objects, the Town will also notify the Arizona State Museum in accordance with the Arizona Antiquities Act (Arizona Revised

Statutes 41-841 through 41-847). Pursuant to that law, the Arizona State Museum director would determine appropriate treatment in consultation with interested parties.

4.7 AIR QUALITY

The Clean Air Act of 1970 (42 U.S.C. §§ 7401–7661 [2008]) is a comprehensive Federal law that regulates air emissions from area, stationary, and mobile sources. The act authorized the U.S. Environmental Protection Agency (EPA) to establish National Ambient Air Quality Standards (NAAQS) to protect public health and the environment. The NAAQS include standards for the following criteria pollutants: nitrogen dioxides (NO_2), ozone (O_3), carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter less than 10 micrometers in diameter (PM_{10}), and particulate matter less than 2.5 micrometers in diameter ($PM_{2.5}$). Areas where the monitored concentration of a pollutant exceeds the NAAQS are classified as being in nonattainment for that pollutant. If the monitored concentration is below the standard, the area is classified as in attainment. After monitoring documents that a nonattainment area meets air quality standards, and if there is a 10-year plan for continuing to meet and maintain such standards, EPA re-designates the area as a maintenance area.

The project area is in Maricopa County, Arizona, in EPA Region 9. The project area is located within an O_3 8-hour non-attainment area, PM_{10} non-attainment area, and is classified as being in attainment or is unclassified for CO, NO_2, SO_2, and $PM_{2.5}$ (ADEQ 2010). The closest air quality monitoring station to the project area is located near State Route (SR) 85 between Palo Verde and Buckeye, Arizona approximately 5 miles southwest of the Proposed Project area.

4.7.1 Alternative 1: No Project

Under the No Project Alternative, no effects to air quality would occur because no construction or other activities resulting in air emissions or affecting attainment status would occur.

4.7.2 Alternative 2: Proposed Project

In compliance with the Clean Air Act, FEMA considered the Proposed Project's impact on air quality. Before approval of any Federal action, the General Conformity Rule (GCR) (40 C.F.R. § 51.6560 [2010]) states that a "a conformity determination is required for each criteria pollutant or precursor where the total of direct and indirect emissions of the criteria pollutant or precursor in a non-attainment or maintenance area caused by a Federal action would equal or exceed any of the rates" specified in the GCR. Because the Town is a nonattainment area for the Federal 8-hour O_3 standard, project emissions must be compared to the GCR de minimis thresholds of 100 tons per year (tpy) of nitrogen dioxides (NO_2) and 100 tpy of volatile organic compounds (VOCs). Construction activities requiring heavy equipment would include site preparation; pouring of the concrete foundation and asphalt driveway; and trenching for underground utility lines. Construction of the fire station structure would predominantly utilize medium-light construction equipment and hand-held tools resulting in minimal to no emission. Using conservative

assumptions regarding duration of construction (construction duration is 9 months), the number and types of construction vehicles/equipment to be used for the Proposed Project (heavy construction equipment requirements are assumed to include bulldozer, backhoe, scraper, grader, roller, and similar equipment), and typical emissions for construction vehicles/equipment (Table1), emission rates are estimated far below the GCR threshold rates for O_3 (100 tpy of VOCs or NO_2). Because the Proposed Project site is in a PM_{10} non-attainment area, project emissions must be compared to the GCR de minimis thresholds of 70 tpy of particulate matter. Construction activities requiring soil disturbance that would generate particulate matter include site preparation and grading. Typical PM_{10} emissions from institutional construction are 0.11 tons per acre per month (EPA 1995). Site preparation and grading is assumed to have a duration of 1 month and cover 1.3 acres for a total PM_{10} emission of 0.143 tons. Therefore, the Proposed Project complies with the GCR and this regulation of the Clean Air Act. The Town would be responsible for obtaining local air quality permits.

Table 1. Typical VOC and NO_2 Emissions (tons/weekday) from Construction Equipment

Equipment Description	VOC	NO_2
Rollers	0.036	0.345
Scrapers	0.005	0.068
Paving Equipment	0.017	0.183
Surfacing Equipment	0.030	0.388
Cement & Mortar Mixers	0.000	0.001
Cranes	0.002	0.027
Graders	0.052	0.537
Off-highway Trucks	0.005	0.083
Rough Terrain Forklifts	0.001	0.004
Tractors/Loaders/Backhoes	0.284	1.108
Total:	0.432	2.744

Source: EPA 2009

To minimize the effects to air quality, the Town will ensure the use of well-maintained and properly tuned construction equipment and vehicles, minimize the idling time of construction vehicles, and use dust-control measures, such as watering disturbed areas and covering spoil piles, as necessary.

Therefore, the Proposed Project would result in minimal short term impacts from construction activities on air quality.

4.8 NOISE

Noise-sensitive receptors are located at land uses associated with indoor and outdoor activities that may be subject to substantial interference from noise. These land uses often include residential dwellings, hotels, hospitals, nursing homes, educational facilities, libraries, and offices. There are no sensitive noise receptors within 0.25 miles of the Proposed Project site. The area surrounding the Proposed Project site has been graded and is currently vacant. This area will be developed for residential housing in the future, although no immediate date for construction is scheduled.

The noise sensitive land uses in project area include residences, recreational facilities including the Raven Golf Course and neighborhood parks, Verrado Middle School and Verrado High School, and offices. The Raven Golf Course and offices are approximately 1.5 miles north of the Proposed Project Site. The Verrado Middle School and Verrado High School are approximately 2.0 miles north of the Proposed Project Site. The closest neighborhood park is approximately 500 feet northwest of the Proposed Project Site.

Existing noise sources include vehicle noise on main artery roads and neighbor streets, and construction noise associated residential housing development. Emergency vehicles and associated noise from sirens currently operate in the project area.

4.8.1 Alternative 1: No Project

Under the No Project Alternative, noise would remain at current levels. Noise from emergency sires would continue to result in a temporary, intermittent and short-term increase in noise levels at the existing fire station and along travel routes.

Therefore, the No Project Alternative would continue to have a minor long-term direct impact on noise levels.

4.8.2 Alternative 2: Proposed Project

The Proposed Project would result in temporary increases in noise levels from construction activities. Construction noise would be intermittent and limited to the duration of construction activities. Construction equipment operations can vary from intermittent to fairly continuous, with multiple pieces of equipment operating concurrently. Increases in noise levels from construction activities would be limited to daylight hours.

Noise impacts from construction equipment may be minimized through use of properly designed equipment, good maintenance of equipment, and limiting construction activities to daylight hours. The contractor will comply with the Town’s Noise Ordinance, which sets the construction start and stop times in order to avoid noise disruptions at night. Noise-producing signals, including horns, whistles, alarms, and bells, will be used for safety purposes only.

Emergency sirens would result in a temporary, intermittent and short-term increase in noise levels. Increased noise levels would be localized to the fire station and the travel route of emergency vehicles. Emergency sirens could sound during daytime and nighttime hours.

There are no sensitive noise receptors within 0.25 miles of the Proposed Project site. Future sensitive noise receptors in the form of residential houses built adjacent to the Proposed Project site would experience greater intermittent and short-term increases in noise levels because of proximity to the fire station. Noise from emergency sirens would not cause exceedances of the EPA's 24-hour exposure levels (EPA 1974) or the Town's noise ordinance which uses Arizona Department of Transportation standards (ADOT 2007). Emergency vehicles currently operate in the project area. Noise receptors adjacent to main travel routes (residences, offices, and the Raven Golf Course) currently experience noise impacts from emergency vehicle sirens using these travel routes. The Proposed Project would increase the frequency of emergency sirens in the vicinity of the new fire station site and decrease the frequency of emergency sirens in the vicinity of the existing fire station, which would be abandoned.

The Proposed Action would therefore result in minor short-term direct impacts from construction activities and minor long-term direct impact from emergency response activities on noise levels.

4.9 TRANSPORATION

The Proposed Project would be located on the corner of North Verrado Way and Point Ridge Road, approximately 0.75 miles north of I-10. North Verrado Way is a 4-lane arterial roadway that serves as the primary access to the Verrado master planned community.

Access from the existing fire station to Indian School Road is provided by a two-lane paved driveway. The driveway is used for both public and fire department access. Vehicle congestion on the narrow driveway is a problem for fire crews entering and exiting the fire station. The driveway allows for two-way traffic which delays emergency vehicle egress during an emergency response, increasing response time, and increases the probability of vehicle collision. The driveway is at a steep grade resulting in poor vehicle sighting distance along the driveway and at the intersection with Indian School Road, further delaying emergency vehicle egress, and increasing response time and the probability of vehicle collision.

Emergency vehicles would utilize roadways during emergency responses under both the No Project and Proposed Project Alternatives.

4.9.1 Alternative 1: No Project

No activities would occur as part of the No Project Alternative, and therefore this alternative would not affect or impact transportation conditions. Emergency vehicles utilize roadways during emergency responses resulting in temporary, intermittent and short-term traffic delays. Under this alternative, the existing access problems at the existing fire station would continue to occur.

Therefore, the No Project Alternative would continue to have moderate long-term impacts to transportation.

4.9.2 Alternative 2: Proposed Project

The mobilization of construction vehicles and equipment to the fire station could slow traffic along Verrado Way; however, detours on this road are not anticipated to be needed. The impacts to traffic on Verrado Way associated with construction would be temporary. The Town will provide advanced notification, signs, flagpersons, and other measures to minimize disruption to travelers along Verrado Way and Point Ridge Road.

The proposed fire station is expected to house three to four pieces of fire fighting equipment. Parking for employees would be provided on site. Employee travel would result in minimal increase in traffic along Verrado Way and Point Ridge Road in the vicinity of the Proposed Project site. A signalized intersection will be installed on Verrado Way and Point Ridge Road which would stop traffic while emergency vehicles exit the fire station when responding to emergency calls, resulting in temporary traffic delays on Verrado Way and Point Ridge Road. Associated traffic stops for emergency vehicles would be intermittent and short-time in duration. No long-term impacts on traffic would result and the Proposed Project would have minor short-term impacts from construction activities and minor long-term impacts from emergency response activities on traffic.

4.10 HAZARDOUS MATERIALS AND WASTE

Hazardous materials are regulated in the United States under a variety of Federal and state/territorial laws. Federal laws and subsequent regulations governing the assessment, transportation, and disposal of hazardous materials and wastes include the Resource Conservation and Recovery Act (RCRA); the RCRA Hazardous and Solid Waste Amendments; Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); the Solid Waste Act; the Toxic Substances Act; and the Clean Air Act (CAA).

A Phase I Environmental Site Assessment was conducted on December 10, 2004 to identify potential recognized environmental conditions (RECs) and properties that require more detailed investigation. ASTM Standard E 1527-05 defines recognized environmental conditions as the presence or likely presence of hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release into structures, ground, groundwater, or surface water on the property. The assessment included a site reconnaissance, a review of the physical setting of the site and regulatory agency listings for the site and vicinity, a review of the site ownership and history, and a review of previous reports.

4.10.1 Alternative 1: No Project

The No Project Alternative would not affect hazardous materials and waste. Should demolition of the existing fire station building occur when the site is developed for residential housing, safe disposal of any hazardous materials associated with the build would be the responsibility of the developer. The Town doesn't own the building or parcel on which the building resides.

4.10.2 Alternative 2: Proposed Project

Based on the Phase I Environmental Site Assessment, no evidence of RECs were found at the Proposed Project site and subsurface hazardous materials issues associated with past contamination are not anticipated. Ground disturbance associated with the Proposed Project would not contribute to environmental releases of any latent hazardous waste. If any suspected hazardous materials are encountered during construction, work will cease at the location and the Town will be contacted to arrange for proper assessment, treatment, or disposal of those materials. Accidental leaks or spills of hazardous materials, such as gasoline and oil, from construction equipment will be cleaned immediately. The Town will employ BMPs such as on-site storage of cleaning materials and regular inspection of the operating condition of construction equipment to eliminate or reduce hazardous material contamination during construction.

The Proposed Project would store gasoline/diesel and hazardous materials used in fire suppression on site. Gasoline/diesel would be stored in above ground tanks located onsite, but outside the fire station building. The tanks would include a concrete spill containment apron. The fuel storage system would meet OSHA standards. Hazardous materials used in fire suppression would be stored onsite within the fire station building. Hazardous materials would be stored in specially marked containers and containers placed on concrete spill containment aprons. All hazardous materials storage would meet OSHA standards.

Under the Proposed Project, the Town will cease occupancy of the existing fire station building. Should demolition of the building occur when the site is developed for residential housing, safe disposal of any hazardous materials associated with the build will be the responsibility of the developer.

The Proposed Project is therefore anticipated to result in negligible short-term direct and indirect impacts to hazardous materials.

4.11 EXECUTIVE ORDER 12898: ENVIRONMENTAL JUSTICE

EO 12898, Environmental Justice, requires Federal agencies to make achieving environmental justice part of their missions by identifying and addressing disproportionately high and adverse human health or environmental effects on minority and low-income populations that result from their programs, policies, or activities. EO 12898 also tasks Federal agencies with ensuring that

public notifications regarding environmental issues are concise, understandable, and readily accessible.

With the growth in residential housing developments in recent years, the Town's population has grown from 6,637 in 2000 (U.S. Census 2000) to 52,764 in 2009 (ADC 2009). In 2000, Buckeye was predominately agricultural, but in the past nine years the Town has had a substantial shift to a suburban residential community. Although residential growth has slowed, the Town's population continues to grow. The Verrado master planned community, which the Proposed Project would serve, encompasses 8,000 acres with a build out potential of 14,080 homes.

Prior to development of the Verrado master planned community, the area was predominately undeveloped natural desert. The 2000 U.S. Census does not identify any minority or low-income populations living in the surrounding community; however, this Census data pre-dates the Verrado master planned community (U.S. Census 2000).

4.11.1 Alternative 1: No Project

Under the No Project Alternative, no impacts would occur to minority or low-income populations because no minority or low-income populations occur in the project area.

4.11.2 Alternative 2: Proposed Project

The socioeconomic impacts of the Proposed Project are beneficial to all residents in the project vicinity. The new fire station would improve capacity and emergency response times with an increase in emergency vehicles and improved site location.

Adverse impacts, such as increases in dust and noise levels, and traffic slowing associated with the Proposed Project would be predominately temporary and mitigated as discussed in previous sections of this document. These impacts would be experienced by all nearby residents, business owners/patrons, recreating public, and motorists equally.

Thus, the Proposed Project would not result in disproportionately high and adverse effects on minority or low-income populations. As a result, the Proposed Project would comply with EO 12898.

4.12 CUMULATIVE IMPACTS

CEQ defines a cumulative impact 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" (40 C.F.R. § 1508.7). Past, present, and reasonably foreseeable actions were identified based on information obtained from the Town, Maricopa County, and FEMA.

Past actions in the area include the construction, maintenance, and past use of roads in the project limits; the golf course; and residential, commercial, and institutional-public structures.

Construction of the existing fire station and adoption of the Verrado Master Plan are also considered past actions. These past actions are assumed to create the existing affected environment. Ongoing and current projects are limited to use and maintenance of the developed facilities in the project vicinity (e.g., ongoing surfacing of Town collector and arterial roads).

Screening criteria were developed to determine which actions would be considered speculative versus "reasonably foreseeable." The criteria included specific projects for which NEPA compliance is complete or under way (based on a published notices of intent, other published scoping documents, Findings of No Significant Impact, or decision records), projects listed in short-range adopted land use or management plans, and those projects specifically identified by a land or resource managing agency to be "reasonably foreseeable."

Navajo County did not document any reasonably foreseeable future projects in the area. FEMA did not document any reasonably foreseeable future projects in the area, other than those described in Sections 1–3 and 4.1–4.12 of this Draft EA. The Town identified three reasonably foreseeable future action immediately east of the project limits, residential development at the Verrado master planned community, a planned residential development at Bethany Home Road and Jackrabbit Trail and a planned residential development at Thomas Road and Jackrabbit Trail. The Town anticipates that these project, which would be designed and funded by private individuals, would begin construction in 2011.

The potential cumulative impacts of each alternative to resource areas are discussed below. If an alternative would have no or negligible direct or indirect impacts to a resource, that alternative is assumed to not contribute to any cumulative impact on that resource and is not discussed further in this section. Therefore, because both the No Project Alternative and the Proposed Project Alternative would have no impact to seismicity; wetlands; species or habitat protected by the ESA; or historic properties, neither alternative would contribute to any cumulative impact on these resources.

Under the No Project Alternative, no construction, ground disturbance, or modification to the existing conditions would occur. As described in Sections 4.1 to 4.11, the implementation of this alternative would result in no direct or indirect impacts to land use, geology and soils, water quality/hydrology, floodplain, wildlife and vegetation, invasive species, and air quality. Therefore, the No Project Alternative would not contribute to cumulative impacts to these resources.

The No Action Alternative emergency vehicles would continue to utilize roadways during emergency responses resulting in temporary, intermittent and short-term traffic delays. Under this alternative, the existing access problems at the existing fire station would continue to occur. Also, noise from emergency sires would continue to result in a temporary, intermittent and short-term increase in noise levels at the existing fire station and along travel routes. Should demolition of the existing fire station building occur when the site is developed for residential housing, safe disposal of any potential hazardous materials associated with the build would be needed. Therefore, when considered along with past, present, and reasonably foreseeable future

actions, the No Action Alternative would have minor cumulative impacts to noise, transportation, and hazardous materials.

The Proposed Project would continue the pattern of developing vacant undeveloped land. Therefore, the potential cumulative impacts of the Proposed Project, when considered along with other past, present, and reasonably foreseeable future actions to land use, geology and soils, water resources, biological resources (e.g., vegetation and invasive species), air quality, and ambient noise levels were analyzed. As discussed in Section 4.1, ample vacant land is available in the project vicinity, and the Proposed Project would conform to current land uses. Although the Proposed Project may improve emergency services for future planned development, the actual rate and location of future development are anticipated to be predominately influenced by economic factors unconnected to actions considered for this analysis. The Proposed Project, ongoing activities, and reasonably foreseeable future projects would all likely require some modification of soils, use of water resources, disturbance to vegetation and wildlife, and temporary construction impacts to air quality and noise levels similar to the impacts discussed in Sections 4.2, 4.5, and 4.7, respectively . Ongoing and future projects would conform to local, State, and Federal regulations for impacts to natural resources (e.g., AZPDES permits, Native Plant Law). The type and nature of ongoing (i.e., road maintenance and upgrading activities) and reasonably foreseeable future actions (i.e., construction of planned housing developments) are anticipated to result in minor temporary impacts to air quality that are typical of construction and maintenance activities. Land management agencies in the project limits, such as the Town, use BMPs to minimize impacts to natural resources. Therefore, when assessed with other past, present, and reasonably foreseeable future actions, impacts to land use, geology and soils, water resources, biological resources, air quality, and ambient noise levels are not considered substantial.

Implementation of the Proposed Project may result in minor temporary impacts to noise from construction activities and minor long-term impacts to noise from emergency response activities. Although the Proposed Project is anticipated to result in minor long-term direct impacts to noise, identified and reasonably foreseeable future actions in the immediate project vicinity would not be expected to occur until after the Proposed Project has entered operation; thus establishing noise levels prior to future actions. Recurring activities and reasonably foreseeable future projects would all likely result in minor temporary impacts to noise that are typical of construction and maintenance activities discussed in Sections 4.8.

Maintenance and construction activities associated with other present (e.g., surfacing of Town roads) and reasonably foreseeable future actions (e.g., construction of planned residential developments) would also be expected to result in temporary impacts to traffic that are typical of roadway improvement projects and residential housing construction. If implemented, the Proposed Project may be constructed concurrently with some of the other planned projects in the area, which would be expected to exacerbate impacts to transportation. However, all construction activities would be required to have an approved traffic control plan, which would minimize impacts to motorists. In the long term, the proposed residential development would increase

traffic; however, the road network in the Verrado master planned community is designed accommodate a built-out capacity of approximately 14,000 residences. Therefore, when considered with other past, present, and reasonably foreseeable future actions, the cumulative impacts to transportation are anticipated to be minor.

Table 2 summarizes the impacts from the Proposed Project and mitigation measures.

Table 2. Impact and Mitigation Summary

Affected Environment/ Resource Area	Impacts	Agency Coordination/ Permits	Mitigation/BMPs
Land Use - Access	Possible loss of access to adjacent land uses during construction	Town of Buckeye	During construction, the Town will ensure that access is maintained to all adjacent properties, and to Point Ridge Road and Verrado Way.
Geology and Soils - Soil erosion	Increased susceptibility to water and wind erosion during construction	Town of Buckeye	The Town will also employ best management practices (BMPs) such as installing silt fences or mulching cleared soil to eliminate or reduce soil erosion during construction. The Town will be responsible for covering spoil piles or watering existing soils, as necessary to minimize soil loss from surface runoff and wind erosion. The Town will also implement permanent erosion-control measures to stabilize soils and minimize the potential for long-term erosion that are consistent with EO 13112 and the Verrado Master Planned Community Plan of Development. The Town will dispose of all excess soil in compliance with all applicable local, State, and Federal regulations.
Water Quality - waters of the U.S.	Impacts to waters of the U.S.	United States Army Corps of Engineers	The Town will not deposit any excess materials in watercourses, wetlands, or floodplains. No staging or storage of construction equipment or materials will occur in waters of the United States.
Water Quality - Stormwater impacts resulting from soil erosion	Sedimentation from construction	Arizona Department of Environmental Quality	The Town will be responsible for obtaining the appropriate Section 402 CWA permit (33 U.S.C. § 1342 [2008]), including preparation of an SWPPP.

Affected Environment/ Resource Area	Impacts	Agency Coordination/ Permits	Mitigation/BMPs
Invasive Species	Spread and establishment of invasive species from construction	Arizona Department of Agriculture	The Town will take measures to prevent the establishment of invasive weeds at the construction site by applying BMP's, including cleaning all equipment before bringing it onsite and using only certified, weed-free erosion control and revegetation that is consistent with EO 13112 and the Verrado Master Planned Community Plan of Development.
Historic Properties	Impacts to historic properties and cultural resources	State Historic Preservation Office	If any discovery included human burials and associated objects, the Town will also notify the Arizona State Museum in accordance with the Arizona Antiquities Act (Arizona Revised Statutes 41-841 through 41-847)
Air Quality	Impacts to air quality from construction	Environmental Protection Agency Maricopa Department of Environmental Quality	The Town will ensure the use of well-maintained and properly tuned construction equipment and vehicles, minimize the idling time of construction vehicles, and use dust-control measures, such as watering disturbed areas and covering spoil piles, as necessary.
Noise	Impacts to noise from construction and emergency services	Town of Buckeye	Noise levels resulting from construction will comply with local noise ordinances.
Transportation	Impacts to traffic from construction and emergency services	Town of Buckeye	The Town will provide signs, flagpersons, and/or other measures to minimize disruption to residents along Verrado Way or motorists traversing the area during construction.
Hazardous Materials and Waste	Impacts from construction	Environmental Protection Agency Maricopa Department of Environmental Quality	The Town will employ BMPs such as on-site storage of cleaning materials and regular inspection of the operating condition of construction equipment to eliminate or reduce hazardous material contamination during construction.

4.13 MITIGATION MEASURES

Mitigation measures are actions that have been identified to minimize the impacts of the alternatives on social, cultural, and natural environmental resources when appropriate. The environmental consequences of the alternatives, as described in the preceding documentation, are projected with the assumption that the applicable mitigation measures are implemented. The grantee may also be required to implement additional mitigation measures based on its compliance with local, State, or other general laws or regulations, as applicable. The following measures would be required as a stipulation for receipt of Federal financial assistance from FEMA.

4.13.1 Alternative 1: No Project

No mitigation measures would be required for the implementation of this alternative.

4.13.2 Alternative 2: Proposed Project

If the proposed project is implemented, the following mitigation measures will be required:

- During construction, the Town will ensure that access is maintained to all adjacent properties, and to Point Ridge Road and Verrado Way.
- The Town will employ best management practices (BMPs) such as installing silt fences or mulching cleared soil to eliminate or reduce soil erosion during construction.
- The Town will be responsible for covering spoil piles or watering existing soils, as necessary to minimize soil loss from surface runoff and wind erosion.
- The Town will implement permanent erosion-control measures to stabilize soils and minimize the potential for long-term erosion that are consistent with EO 13112 and the Verrado Master Planned Community Plan of Development.
- The Town will dispose of all excess soil in compliance with all applicable local, State, and Federal regulations.
- The Town will not deposit any excess materials in watercourses, wetlands, or floodplains.
- No staging or storage of construction equipment or materials will occur in waters of the United States.
- The Town will be responsible for obtaining the appropriate Section 402 CWA permit (33 U.S.C. § 1342 [2008]), including preparation of an SWPPP.
- The Town will take measures to prevent the establishment of invasive weeds at the construction site by applying BMP's, including cleaning all equipment before bringing it onsite and using only certified, weed-free erosion control and revegetation that is consistent with EO 13112 and the Verrado Master Planned Community Plan of Development.
- If any discovery included human burials and associated objects, the Town will notify the Arizona State Museum in accordance with the Arizona Antiquities Act (Arizona Revised Statutes 41-841 through 41-847)
- The Town will ensure the use of well-maintained and properly tuned construction equipment and vehicles, minimize the idling time of construction vehicles, and use dust-control measures, such as watering disturbed areas and covering spoil piles, as necessary.
- Noise levels resulting from construction will comply with local noise ordinances.
- The Town will provide signs, flagpersons, and/or other measures to minimize disruption to residents along Verrado Way or motorists traversing the area during construction.

- The Town will employ BMPs such as on-site storage of cleaning materials and regular inspection of the operating condition of construction equipment to eliminate or reduce hazardous material contamination during construction.

4.14 IRREVERSIBLE OR IRRETRIEVABLE COMMITMENT OF RESOURCES AND SHORT-TERM USES OF THE ENVIRONMENT AND MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

4.14.1 Irreversible or Irretrievable Commitment of Resources

For the purposes of this document, irreversible commitment of resources is interpreted to mean that once resources are committed, the production or use of those resources would be lost for other purposes throughout the life of the alternative being implemented. An irretrievable commitment of resources defines those resources that are used, consumed, destroyed, or degraded during the life of the alternative that could not be retrieved or replaced during or after the life of the alternative.

The No Project Alternative would require the continued operation of the existing fire station. Operation of this facility would require continue use of manpower, vehicles, and upkeep of the facility. The existing fire station occupies a former proving ground building. The Town does not own the building or any portion being used for the fire station. This building and surrounding area has been entitled and is currently platted for development. Should the Town lose access to this building, an alternative location for a temporary fire station would be necessary. Relocating personnel and equipment would require further expenditure of the Town's financial resources, which would otherwise be used for the construction and operation of a permanent fire station at the Proposed Project site.

The Proposed Project would require the commitment of human and fiscal resources. The additional expenditure of labor required for the Proposed Project would be limited to the efforts during construction. Maintenance of fire station facilities and equipment under the Proposed Project is expected to be less than current maintenance activities under No Action Alternative. Funding for the Proposed Project would not be available for other uses and would therefore be irretrievable.

The Proposed Project would also require the commitment of natural resources. Approximately 1.3 acres of land would be committed to the Proposed Project. Once constructed, this land would not be available for other purposes. The Proposed Project site has been graded and natural vegetation removed. The project would involve restoring vegetation after project implementation; however, much of the site would contain the fire station building and other hard surfaces unavailable for revegetation.

Non-renewable and irretrievable fossil fuels and construction materials (e.g., cement, steel, water, and energy) would be required. Labor and materials are also used in the fabrication,

preparation, and distribution of construction materials. These materials are generally not retrievable. However, the materials are abundant, and use would not result in a measurable impact on the availability of these resources.

The implementation of the Proposed Project would result in the commitment of resources as described above; however, the project would result in improved emergency services by centralizing the location of the fire station, maximizing the coverage area, and decreasing response times.

4.14.2 Short-term Uses of the Environment and Maintenance and Enhancement of Long-term Productivity

Implementation of the Proposed Project would result in short-term uses of and minor short- term impacts on the environment, as documented in Sections 4.1 to 4.10. These uses of the environment would be balanced by the increased fire-suppression capabilities and decreased emergency response times. The new fire station would enhance the long-term productivity of prevention of loss to life and property in the event of a fire in the area.

SECTION FIVE PUBLIC PARTICIPATION AND AGENCY COORDINATION

FEMA is the lead Federal agency for conducting the NEPA compliance process for this proposal. The lead Federal agency is responsible for expediting the preparation and review of NEPA documents in a way that is responsive to the needs of Town residents while meeting the spirit and intent of NEPA and complying with all NEPA provisions. Refer to Appendix B for applicable correspondence from the Buckeye Fire Department.

FEMA and the Town will circulate the Draft EA for a 15-day public comment period. The public will be notified of the availability of the Draft EA through the FEMA website and the publication of a public notice in the *Arizona Republic*. During the public comment period, FEMA will accept written comments on the Draft EA; written comments should be addressed to the FEMA Region IX Environmental Office, 1111 Broadway, Suite 1200, Oakland, California 94607 or to fema-rix-ehp-documents@dhs.gov. At the end of the public comment period, FEMA will review the comments and consider them in the decision-making process before notifying the public of its final determination.

SECTION SIX REFERENCES

Arizona Department of Commerce. 2009. 2009 Population Estimates. Arizona Department of Commerce, Phoenix, Arizona.

Arizona Department of Environmental Quality. Interactive GIS eMaps. Downloaded on May 10, 2010, from http://gisweb.azdeq.gov/arcgis/emaps/?topic=nonattain.

———. 1999. *State of Arizona Multi-Hazard Mitigation Plan.* Chapter 5.4.3, Earthquake. Available at http://www.dem.azdema.gov/operations/docs/mitplan/chapter5.4.3.pdf. Accessed February 2010.

Arizona Department of Transportation (ADOT). 2007. ADOT Noise Abatement Policy Addendum August 8, 2007.

Arizona Department of Water Resources. Phoenix Active Management Area. Downloaded on May 26, 2010, from http://www.azwater.gov/azdwr/WaterManagement/AMAs/default.htm.

Arizona Earthquake Information Center. 2008. Available at http://www4.nau.edu/geology/aeic/aeic.html. Accessed October 2008.

Arizona Geological Survey. 2006. Arizona's Geologic Hazard Center. Downloaded on April 14, 2010, from http://www.azgs.az.gov/hazards_earthquakes.shtml.

Bausch, Douglas B., and David S. Brumbaugh. 1996. *Yuma County Earthquake Hazard Evaluation, Yuma County, Arizona*. May 23. Cited in ADEM 1999.

DMB Associates. 2005. Verrado Master Plan.

Brown, D.E., 1994. Biotic Communities: Southwestern United States and Northwestern Mexico. University of Utah Press, Salt Lake City, Utah. 342 pp.

Ellis, J. Grace, Sam W. Baar IV, Jared A. Smith, and A.J. Taylor. 2004. *A Cultural Resources Survey of 6,020 Acres at Verrado, a Master Planned Community (Formerly the Caterpillar Proving Grounds) in the White Tank Mountains, Maricopa County, Arizona*. Technical Report 98-29. Soil Systems, Phoenix, Arizona.

Environmental Protection Agency (EPA). 2009. Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Supplemental Updates. Office of Air Quality Planning and Standards, Research Triangle Park, NC.

———. 1974. Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety.

Federal Emergency Management Agency. 2005. Flood Insurance Rate Map. Downloaded on April 30, 2010, from

http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1.

GEC-SA&B. 2004. Phase 1 Environmental Site Assessment, Phases 1B North, 1B South, 2 East, and 2 West, Verrado Development, Buckeye, Arizona.

Maricopa, Arizona Department of Air Quality. 2010. Planning Area Maps. Downloaded on April 14, 2010, from http://www.maricopa.gov/aq/divisions/planning_analysis/PlanningAreaMaps.aspx.

Town of Buckeye, Arizona. 2007 General Plan. Downloaded on April 14, 2010, from http://www.buckeyeaz.gov/DocumentView.aspx?DID=142.

United States Department of Agriculture. Natural Resources Conservation Service. 2010. Web Soil Survey: Buckeye, Arizona. Available at http://websoilsurvey.nrcs.usda.gov/ Accessed on April 11, 2010.

United States Department of Agriculture. Natural Resources Conservation Service. 1986. Soil Survey of Aguila-Carefree Area, Parts of Maricopa and Pinal Counties, Arizona. Downloaded April 30, 2010, from http://soils.usda.gov/survey/online_surveys/arizona/.

United States Census Bureau. Census. 2000. Census 2000 Demographic Highlights, Buckeye, Arizona Summary File 1 (SF 1) and Summary File 3 (SF 3). Downloaded April 9, 2010, from http://factfinder.census.gov.

University of Arizona. Arizona Upland Desert Scrub. 2010. Downloaded on April 13, 2010, from http://southwest.library.arizona.edu/azso/body.1_div.4.html.

University of Arizona. Geologic Framework of Arizona. 2010. Downloaded Aril 13, 2010, from http://southwest.library.arizona.edu/azso/body.1_div.2.html.

United States Department of Agriculture. U.S. Fish and Wildlife Service. Maricopa County, Arizona List of Endangered, Threatened, and Candidate Species. Downloaded April 12, 2010, from http://www.fws.gov/southwest/es/arizona/Documents/CountyLists/Maricopa.pdf.

United States Department of Agriculture. U.S. Forest Service. 1993. Chapter 39: Ecological Subregions of the United States, Basin and Range. Downloaded on March 13, 2010, from http://www.fs.fed.us/land/pubs/ecoregions/ch39.html.

United States Department of Agriculture. U.S. Fish and Wildlife Service. 2008. Arizona Ecological Services Database. Available at http://www.fws.gov. Accessed on April 12, 2010.

SECTION SEVEN LIST OF PREPARERS

FEMA, Region IX

Alessandro Amaglio, Environmental Officer

Donna M. Meyer, Deputy Environmental and Historic Preservation Officer

URS Corporation

G. Morgan Griffin, Senior Project Manager

Linda Peters, Senior Project Manager

Bill Jackson, Senior Project Manager

JP Charpentier, Project Coordinator, Biologist

Allison Getty, Environmental Planner

Gene Rogge, Senior Project Archaeologist

Marianne Burrus, Hazardous Materials

Brian Colson, GIS Specialist

Jennifer Williams, Technical Editor

APPENDIX A
FIGURES AND PHOTOGRAPHS

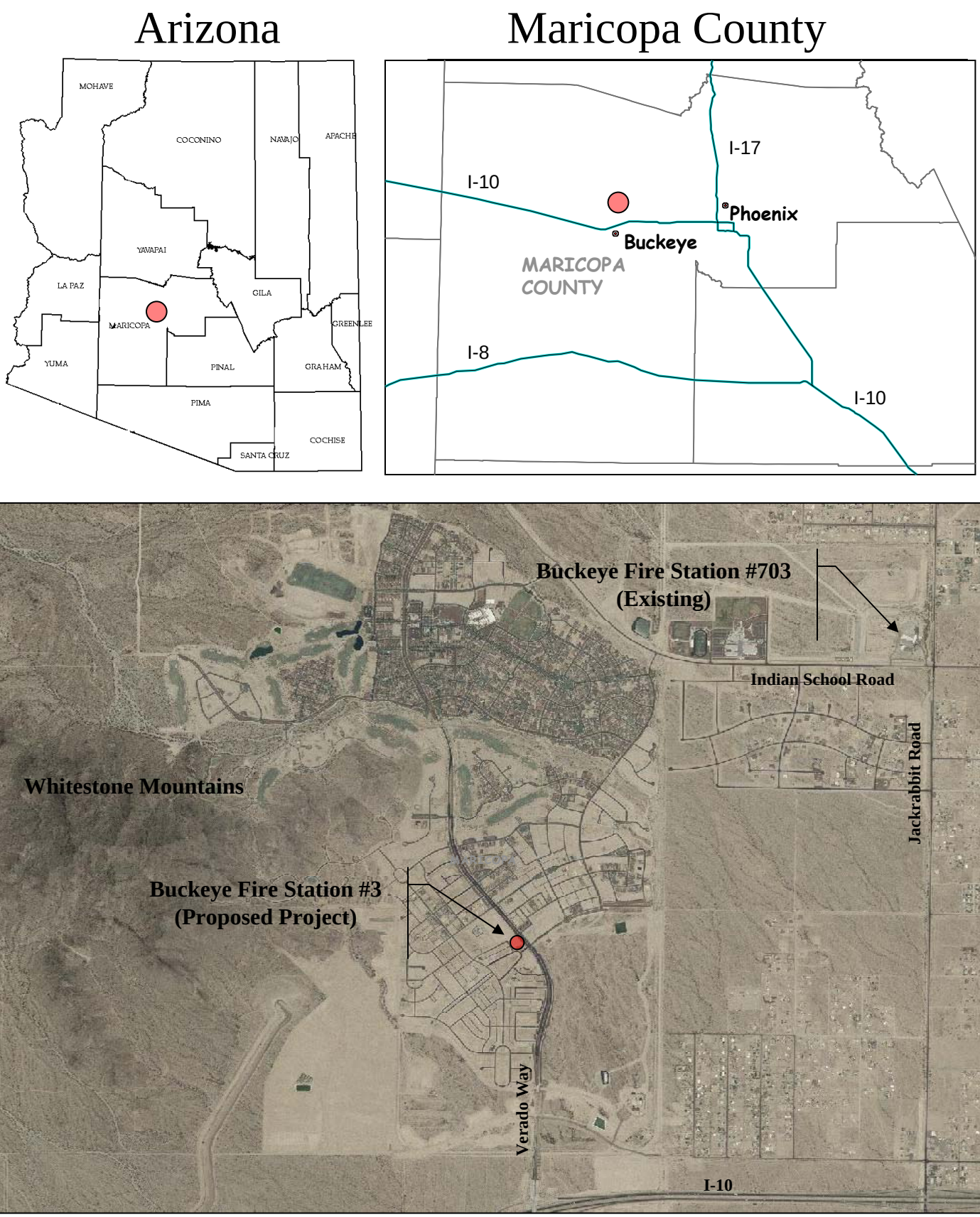


Figure 1. Buckeye Fire Station #3 Project Area
Township 2 North, Range 2 West, Section 31
Valencia Quadrangle

● Proposed Project Area

N

Photograph 1. Fire station parcel. Photograph is taken from the southeast corner of the parcel looking northwest.

Photograph 2. Fire station parcel. Photograph is from the east parcel boundary looking west.

Photograph 3. Fire station parcel. Photograph is from the northeast parcel boundary looking southwest.

Photograph 4. Fire station parcel. Photograph is from the northwest parcel boundary looking southeast.

Photograph 5. Fire station parcel. Photograph is from the west parcel boundary looking east.

Photograph 6. Fire station parcel. Photograph is from the southwest parcel boundary looking northeast.

APPENDIX B
AGENCY CORRESPONDENCE

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
ARIZONA-NEVADA AREA OFFICE
3636 NORTH CENTRAL AVENUE, SUITE 900
PHOENIX, ARIZONA 85012-1939

REPLY TO
ATTENTION OF:

June 8, 2010

Office of the Chief
Regulatory Division

Ms. Donna Meyer
Deputy Regional Environmental Officer
U.S. Department of Homeland Security
Federal Emergency Management Agency, Region IX
1111 Broadway, Suite 1200
Oakland, California 94607-4052

File Number: 2010-00484-EHB

Dear Ms. Meyer:

The Corps of Engineers (Corps) was notified of the proposed construction of a 4-bay fire station at 2582 North Verrado Way, Buckeye, Maricopa County, Arizona.

Please be advised that the potential impacts for the proposed plans may require a Department of the Army permit issued under Section 404 of the Clean Water Act. A Section 404 permit is required for the discharge of dredged or fill material into the "waters of the United States," including adjacent wetlands. Examples of activities requiring a permit are placing bank protection, temporary or permanent stock-piling of excavated material, grading roads, grading (including vegetative clearing operations) that involves filling of low areas or leveling the land, constructing weirs or diversion dikes, constructing approach fills, and discharging dredged or fill material as part of any other activity.

I am enclosing a permit application form and an informational pamphlet that describes the various regulatory programs that may be applicable for this proposed project.

Thank you for your support and interest in our regulatory program. If you have questions, please contact Elizabeth H. Brooks at (602) 640-5385 x223. Please refer to file number SPL-2010-00484-EHB in your reply.

Sincerely,

Sallie McGuire

Sallie D. McGuire
Chief, Arizona Branch
Regulatory Division

Enclosure(s)

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
ARIZONA FIELD OFFICE
3636 NORTH CENTRAL AVENUE, SUITE 760
PHOENIX, ARIZONA 85012-1936

REPLY TO

January 16, 2002

Office of the Chief
Regulatory Branch

DMB White Tank, LLC
Attention: Bob Kammerle
7600 East Doubletree Ranch Road
Suite 300
Scottsdale, Arizona 85258

Dear Mr. Kammerle:

Enclosed you will find a signed copy of your Department of the Army Permit (File # 974021800-RWF). Please retain this copy for your files.

Thank you for participating in our regulatory program. If you have any questions, please contact Ron Fowler at (602) 640-5385 x 226.

Sincerely,

Mark F. Sudol, D.Env.
Chief, Regulatory Branch

Enclosure(s)

DEPARTMENT OF THE ARMY PERMIT

Permittee:

Bob Kammerle
DMB White Tank, LLC
7600 East Doubletree Ranch Road
Suite 300
Scottsdale, Arizona 85258

Permit Number: 974-0218-RWF

Issuing Office: Los Angeles District

Note: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: To impact a total of 41.40 acres of waters of the United States during the course of constructing the Whitestone master planned community including impacting a maximum of 4.23 acres of waters of the United States by constructing road crossings, driveways, utility lines, and trail crossings; 5.97 acres of waters of the United States for constructing building pads; and 31.20 acres of waters of the United States for re-channelization activities. The 41.40 total acres of impacts to waters of the United States, includes a maximum of 10.20 acres of undisturbed waters of the United States, and maximum of 31.20 acres of impacts to previously disturbed (manmade) waters of the United States as shown on the attached drawings.

Project Location: In Tractor Wash, Osborne Wash, Tuthill Dike Wash and other unnamed washes at (Sections 7, 18, 19, 20, 30, & 31, T2N, R2W, Sections 3, 10, 11, 12, 13, 23, 24,& 25, T2N, R3W, Section 1, T1N, R3W, and Section 6, T1N, R2W), Buckeye, Maricopa County, Arizona.

Permit Conditions

General Conditions:

1. The time limit for completing the authorized activity ends on January 15, 2007. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification from this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished with the terms and conditions of your permit.

Special Conditions: See attached sheet.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity

described above pursuant to:

( ) Section 10 of the River and Harbor Act of 1899 (33 U.S.C. 403).

( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measure ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give you favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

John L. Bradley 1/4/02

(PERMITTEE) (DATE)

John L. Bradley
General Manager

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

Mark Durham

Mark F. Sudol, D.Env.
Chief, Regulatory Branch
(for the District Engineer)

16 Jan 2008
(DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFEREE)

(DATE)

Mark Durham

Mark F. Sudol, D.Env.
Chief, Regulatory Branch
(for the District Engineer)

16 Jan 2020
(DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFEREE)

(DATE)

SPECIAL CONDITIONS
PERMIT NO. 974-0218-RWF

a. The permittee shall comply with all requirements and conditions in the state letter of Section 401 water quality certification that was signed by the Arizona Department of Environmental Quality on June 27, 2001. A copy of this letter is enclosed.

b. The permittee shall implement, in full, the terms and conditions of the Habitat Mitigation and Monitoring Plan dated November 2001 that was prepared for the Whitestone Master Planned Community by Senna Environmental. The formula for determining any necessary contingency (paragraph 2.6 of the Habitat Mitigation and Monitoring Plan document) shall be calculated by utilizing Corps approved criteria and methodology. A copy of this Habitat Mitigation and Monitoring Plan is included as an attachment to this permit.

c. The permittee shall provide the Corps with annual reports documenting the yearly as-built condition of the project. The as-built drawings shall be accompanied by overlays that accurately depict the location, extent and acreage of waters of the United States within the project boundary that were impacted, restored and preserved. The annual reports shall also include a written summary of all project activities that have occurred within the reporting year and a signed statement by the permittee certifying that the project is in compliance with the terms and conditions of this permit.

d. The permittee shall relocate the existing wildlife watering structure no later than two years from the date of this permit. The timing and new location of this wildlife watering structure shall be coordinated with and approved by the Arizona Game and Fish Department. The permittee shall provide the Corps with written notification documenting the successful relocation of wildlife watering structure. This written notification shall be provided to the Corps within 30 days following the successful relocation of this structure.

e. Deed restrictions shall be recorded on mitigation areas described in the Mitigation Plan in the following manner: (a) for all mitigation areas in the Natural Wash Corridor and the Upland Preserve, no later than May 1, 2002; and (b) for any mitigation area located within the Triangle Basin, Tuthill Restored Channel, or the Osborn-Tractor Restored Wash Corridors, after completion of construction drawings but before start of construction. Deed restrictions shall be substantially in the form model deed restriction attached to this permit.

f. The permittee shall not undertake any actions that may impact National Register-eligible archaeological sites until a Memorandum of Agreement (MOA) between the permittee, the Corps of Engineers and Arizona State Historic Preservation Office (SHPO) has been executed. For the purposes of this special condition, Register-eligible archaeological sites consist of the following 28 potentially eligible sites: AZ T:6:21(ASM); AZ T:6:22(ASM); AZ T:6:23(ASM); AZ T:6:25(ASM); AZ T:6:28(ASM); AZ T:6:29(ASM); AZ T:6:31(ASM); AZ T:6:32(ASM); AZ T:6:41(ASM); AZ T:6:43(ASM); AZ T:6:44(ASM);

AZ T:6:45(ASM); AZ T:6:46(ASM); AZ T:6:47(ASM); AZ T:6:48(ASM); AZ T:6:49(ASM); AZ T:6:50(ASM); AZ T:6:51(ASM); AZ T:6:52(ASM); AZ T:6:53(ASM); AZ T:6:54(ASM); AZ T:6:55(ASM); AZ T:10:91(ASM); AZ T:10:92(ASM); AZ T:10:93(ASM); AZ T:10:95(ASM); AZ T:10:96(ASM); and AZ T:10:100(ASM). A minimum of a 50-foot buffer shall be established around the outer boundary of the sites. No construction activities of any kind shall be conducted within this buffer prior to obtaining written clearance from the Corps. A qualified archaeologist shall establish in the field the outer boundary of each archaeological site and the 50-foot buffer zone, and shall monitor all grading activities occurring within 100 feet of the site until the MOA has been approved. Upon approval of the MOA, the sites shall be managed in accordance with the MOA. The permittee will provide all archaeological studies and reports required by the Corps. The permittee will provide the necessary funding for all required studies and reports. The draft data recovery report will be provided to the Corps for review within one year of completion of fieldwork. The Corps reserves the right to approve (or disapprove) the contents of any required reports. Any consultant for the permittee will abide by the procedures detailed in the approved treatment plan.

g. Should cultural resources or archeological remains be encountered during construction/excavation, work shall immediately cease in the area of discovery. The permittee shall promptly notify the State Historic Preservation Office at (602) 542-7137 and the Corps at (602) 640-5385.

h. Permittee is authorized to discharge dredged or fill material into a maximum of 41.4 acres of jurisdictional waters located within the 8,800-acre Whitestone master-planned community with the understanding that only the locations of road crossings may be adjusted based on future site-specific planning. In no case shall the permittee exceed the total of 41.4 acres of impacts to waters of the United States nor shall the permittee exceed the 10.2 acres of impacts to waters determined to be undisturbed.

i. No debris, soil, silt, sand, rubbish, cement or concrete washings thereof, oil or petroleum products or washings thereof, shall be allowed to enter into or placed where it may be washed by rainfall or runoff into the waterway. When project operations are completed, any and all excess construction materials, debris, and or other associated excess project materials shall be removed to an appropriate off-site location outside of any jurisdictional areas. At no time shall this material be sidecast into the waters of the United States.

j. Staging, storage, fueling, and maintenance of equipment and materials shall be located outside of the Corps' jurisdiction.

k. The permittee shall comply with the "Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Project" developed by Arizona Game and Fish Department (January 17, 1997). A copy of this document is enclosed.

l. The permittee shall include a copy of this permit in all contracts awarded to contractors or subcontractors for work in or adjacent to waters of the United States or the mitigation

areas identified in the Mitigation Plan. Although the permittee remains responsible for compliance with the terms and conditions of this permit, any subsequent contract shall contain a contract provision requiring compliance with this permit. The intent of this condition is to ensure that the permittee, successor, assign or transferee and its agents, including all relevant contractors are made aware of the terms and conditions, and binding nature of this permit. Additionally, a copy of this permit shall be available at the construction site at all times.

m. The permittee provide each contractor with written instructions to be reviewed by all on-site supervisory construction personnel on the protection of cultural and ecological resources, including all agreed-to environmental stipulations for the project and all conditions required by this permit. The instructions shall also address federal and state laws regarding antiquities, plants, and wildlife; including collection, removal, and the importance of these resources and the purpose and necessity of protecting them.

GUIDELINES FOR HANDLING SONORAN DESERT TORTOISES ENCOUNTERED ON DEVELOPMENT PROJECTS

Arizona Game and Fish Department
Revised January 17, 1997

The Arizona Game and Fish Department (Department) has developed the following guidelines to reduce potential impacts to desert tortoises, and to promote the continued existence of tortoises throughout the state. These guidelines apply to short-term and/or small-scale projects, depending on the number of affected tortoises and specific type of project.

Desert tortoises of the Sonoran population are those occurring south and east of the Colorado River. Tortoises encountered in the open should be moved out of harm's way to adjacent appropriate habitat. If an occupied burrow is determined to be in jeopardy of destruction, the tortoise should be relocated to the nearest appropriate alternate burrow or other appropriate shelter, as determined by a qualified biologist. Tortoises should be moved less than 48 hours in advance of the habitat disturbance so they do not return to the area in the interim. Tortoises should be moved quickly, kept in an upright position at all times and placed in the shade. Separate disposable gloves should be worn for each tortoise handled to avoid potential transfer of disease between tortoises. Tortoises must not be moved if the ambient air temperature exceeds 105 degrees fahrenheit unless an alternate burrow is available or the tortoise is in imminent danger.

A tortoise may be moved up to two miles, but no further than necessary from its original location. If a release site, or alternate burrow, is unavailable within this distance, and ambient air temperature exceeds 105 degrees fahrenheit, the Department should be contacted to place the tortoise into a Department-regulated desert tortoise adoption program. Tortoises salvaged from projects which result in substantial permanent habitat loss (e.g. housing and highway projects), or those requiring removal during long-term (longer than one week) construction projects, will also be placed in desert tortoise adoption programs. *Managers of projects likely to affect desert tortoises should obtain a scientific collecting permit from the Department to facilitate temporary possession of tortoises.* Likewise, if large numbers of tortoises (>5) are expected to be displaced by a project, the project manager should contact the Department for guidance and/or assistance.

Please keep in mind the following points:

- These guidelines do not apply to the Mohave population of desert tortoises (north and west of the Colorado River). Mohave desert tortoises are specifically protected under the Endangered Species Act, as administered by the U.S. Fish and Wildlife Service.

- These guidelines are subject to revision at the discretion of the Department. We recommend that the Department be contacted during the planning stages of any project that may affect desert tortoises.

- Take, possession, or harassment of wild desert tortoises is prohibited by state law. Unless specifically authorized by the Department, or as noted above, project personnel should avoid disturbing any tortoise.

RAC:NLO:rc

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
ARIZONA-NEVADA AREA OFFICE
3636 NORTH CENTRAL AVENUE, SUITE 900
PHOENIX, ARIZONA 85012-1939

August 1, 2006

REPLY TO
ATTENTION OF:

Office of the Chief
Regulatory Branch

Robert F. Kammerle
DMB
7600 East Doubletree Ranch Road
Suite 300
Scottsdale, Arizona 85258-2137

File Number: 974-0218-RWF

Dear Mr. Kammerle:

Reference is made to your request dated July 26, 2006 to amend the Department of the Army Section 404 Clean Water Act Permit No. 974-0218-RWF that was issued to you by the Corps of Engineers on January 16, 2000 for the construction of the Verrado development (formerly known as Whitestone).

Under the provisions of 33 Code of Federal Regulation 325.6(d), the start date is to remain the same and the completion date is extended from January 15, 2007 to January 15, 2012.

The terms and conditions of Permit No. 9740-21800-RWF, except as changed herein, remain in full force and effect.

Please note that a copy of this letter is being forwarded to those agencies on the enclosed list.

Sincerely,

Cindy Lester

Cindy Lester P.E.
Chief, Arizona Section
Regulatory Branch

Enclosure(s)

AUG 4 2006

United States Department of the Interior
U.S. Fish and Wildlife Service
2321 West Royal Palm Road, Suite 103
Phoenix, Arizona 85021-4951
Telephone: (602) 242-0210 FAX: (602) 242-2513

In Reply Refer To:

AESO/FA
22410-2001-CPA-0003

July 13, 2001

Ms. Cindy Lester
Chief, Regulatory Branch
U.S. Army Corps of Engineers
3636 North Central Avenue, Suite 760
Phoenix, Arizona 85012-1936

Dear Ms. Lester:

The Service has reviewed Public Notice 974-0218-RWF (PN) dated June 1, 2001, issued by the U.S. Army Corps of Engineers. We have also reviewed the least environmentally damaging practicable alternatives analysis (Jones and Stokes *et al* 2001), and the conceptual mitigation plan (Senna Environmental Services 2001). On June 25, your staff informed us that the comment period on the PN had been extended to July 13. DMB White Tank, LLC has submitted an application for a Section 404 Clean Water Act (CWA) permit to build the 8,800-acre Whitestone master planned residential community in Buckeye, Maricopa County, Arizona (T2N, R3W; T2N, R2W; T1N, R3W; T1N, R2W). These comments are provided under the authority of and in accordance with the Fish and Wildlife Coordination Act (48 Stat. 401, as amended U.S.C. 661 et. seq.) (FWCA), but do not constitute our final review of the permit application in accordance with the FWCA and section 404(m).

We participated in two conference calls with the applicant and other resource agencies on June13 and July 5, and conducted a site investigation with the applicant's representatives on July 11. As relayed to both your agency and the applicant during the conference calls and site visit, our primary concern is the lack of a thorough assessment of, and mitigation for, the potential adverse effects of the project on the biological function of the jurisdictional waters in the action area. The PN indicates that of a total of 63.8 acres of jurisdictional waters on the project site, 41.4 acres would be directly subjected to the discharge of dredged and fill material. There is scant information regarding the potential adverse effects of the adjacent upland development on the biological function of jurisdictional washes. We suggest an assessment be conducted to determine the extent of secondary and cumulative effects on jurisdictional wasters as defined in the Section 404(b)(1) Guidelines (CFR 40 part 230.11).

Alterations to adjacent upland areas can impact the physical, chemical, and biological characteristics of adjacent and downstream jurisdictional waters and result in secondary effects through modification of ecological processes such as infiltration capacity, surface runoff, underground water storage, sediment load, and organic matter input. For instance, the immediate

hydrologic effects of upland development is the increase in the area of low or zero infiltration capacity, due to decreased energy dissipation provide by roughness (i.e. removal of plant cover) and increased impermeable surface (i.e. placement of asphalt and concrete). Temporary secondary effects can include increases in sediment yield and a decrease in the number of smaller order streams to convey sediment load, while long-term secondary effects may include incision of arroyos and the degradation of existing channels resulting in channel downcutting or enlargement (Dunne and Leopold 1978, Leopold 1994). The combined effects of adjacent upland development may include bank degradation, channel downcutting, increased flood events, decreased surface flow period, and reduced biological productivity.

The 404(b)(1) Guidelines directs the Corps to analyze the effects of 404 permitted activities on "surrounding areas" as well as "other wildlife" including resident and transient mammals, birds, reptiles, and amphibians (40 CFR Part 230). Most transient wildlife species associated with aquatic ecosystems utilize adjacent upland areas for a large portion of their life cycle. For instance, Szaro and Jakle (1985) found that Gila woodpeckers used saguaros located in adjacent uplands for nesting purposes while foraging extensively along washes. Also bird community structure in a given habitat type depends, at least partially, on bird species composition and density in adjacent habitats (Szaro and Jakle 1985, Shurcliff 1980). Krausman *et al* (1985) found that while desert mule deer utilize uplands, xeroriparian washes and their associated vegetation were also an important component of desert mule deer habitat. It has also been found that as riparian areas become increasingly isolated, or fragmented, they rapidly lose riparian or upland herpetofaunal species (Jones et al 1985, Jakle and Gatz 1985). These concepts illustrate that an intimate biological and ecological relationship exists between adjacent uplands and waters, and that activities in uplands will necessarily have some level of effect on the biological function of adjacent jurisdictional waters.

The PN states that a preliminary determination has been made that an environmental impact statement (EIS) is not required for the proposed work. As such, we assume that your agency is preparing an environmental assessment (EA) in accordance with the National Environmental Policy Act. In addition to analyzing the true effect of the project on the biological functioning of jurisdictional waters, the EA should analyze the total impact of the entire master planned community on the Sonoran desert landscape. We believe the total impact of the development which would be authorized by your agency should be assessed, including parts located on uplands and all direct, indirect, and cumulative effects, and any interrelated and interdependent activities. We believe the footprint of the permitted project that should be assessed by the Corps is, at minimum, the total 8,800 acres of development.

Corps regulations (CFR 33, Appendix B to Part 325) state the District Engineer is considered to have authority over portions of the project beyond the limits of jurisdiction "where the environmental consequences of the larger project are essentially products of the Corps permit action." If it is impracticable to bridge span all jurisdictional waters on site, thus avoiding impacts to jurisdictional waters, we believe the proposed development could not occur but for the issuance of a Section 404 permit and it would be within Corps authority to extend the scope of

analysis beyond the limits of the ordinary high water mark and assess interrelated and interdependent activities and effects. Corps regulations involving the Section 404 public interest review state that, "The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments." In regard to determining the appropriate scope of analysis, "in all cases, the scope of analysis used for analyzing both impacts and alternatives should be the same scope of analysis used for analyzing the benefits of the proposal". We assume the housing, associated residential amenities, and economic growth provided by the proposed activity will be considered as a benefit in your public interest review. We believe the Corps should also consider the detriments, such as overall loss of wildlife habitat and ecosystem function, associated with that development.

Additionally, the Regulations For Implementing The Procedural Provisions Of The National Environmental Policy Act (NEPA) (40 CFR, Parts 1502.16 and 1508.8), states the environmental consequences of an action include both direct effects and "Indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems."

Your EA should include the totality of potential effects of the master planned community on Sonoran desertscrub vegetation communities and local and regional wildlife resources; including potential shifts in community structure, changes in diversity, relative abundance, and species richness and evenness, and long-term effects on population demographics and viability. This analysis should be more than a qualitative assessment, and use acceptable empirical methodologies to quantify and evaluate the expected impacts on biotic resources. Marzluff (1997) contends that urbanized habitats typically support larger and richer avian communities that are less even in relative abundance because they are dominated by a few, abundant species. We are concerned that project related landscape modifications may selectively displace transient wildlife species, shift plant and animal species density and richness, disrupt the normal functions of the ecosystem, and lead to reductions in overall biological productivity and diversity.

The loss of the upland vegetation communities associated with development of the proposed community could have a negative impact on wildlife populations within and adjacent to the project area. These areas likely provide movement corridors, nesting areas, and foraging areas for numerous wildlife species. The proposed modification could adversely affect population dynamics through habitat loss or fragmentation. This type of disturbance can disrupt intra- and interspecific wildlife interactions, resulting in population and community shifts (Knight *et al* 1995). Animals could be displaced to adjacent areas that may already be functioning at or near carrying capacity, resulting in increased competition, predation, disease transmission, and mortality. The associated development and increased human activity could place increased stress on local wildlife populations resulting in reduced fecundity and recruitment, adversely affecting local population viability.

The conceptual mitigation plan proposes a combination of habitat restoration and preservation along several xeroriparian washes within the proposed site. In accordance with existing regulations and procedures, mitigation measures should be developed that first address the issues of avoidance and minimization, and lastly compensation. As stated above, we are concerned that adjacent upland development may compromise the ability of avoided and preserved jurisdictional waters to maintain biological and ecological function. Therefore, for compensatory mitigation, measures should not only mitigate vegetative parameters such as canopy cover, biomass, and total volume; but should also mitigate changes or loss of animal diversity, abundance, density, richness, and evenness. Monitoring provisions and criteria should be developed to track the success of mitigation for animal populations as well as vegetation communities. We believe a mitigation plan based on this approach would be a practicable and effective means by which to judge the success of mitigation and we are willing to assist in the development of the plan.

The Service is also concerned about the cumulative effects this proposed action and other past and future Section 404 permitted activities may have on regional wildlife populations and waters within and around the White Tanks Mountains. The proposed project site is close to the White Tanks Mountain Regional Park to the north. The park acts as a refuge, providing protected habitat for numerous wildlife inhabiting this region of the Sonoran desert. The effect of urban growth along the boundaries of protected areas, especially parks, has become the focus of several recent studies and a primary concern for natural resource managers (Shaw 1998). For instance, Bellantori and Krausman (1993) indicated that wildlife habitat outside of Saguaro National Park in southern Arizona has been fragmented, travel corridors have been destroyed, and fauna may have already been reduced as a result of urbanization. Briggs *et al* (1996), state that development of bordering land is one of the greatest threats to the biodiversity of protected areas in the United States. We believe your office should perform assessments to determine the level of cumulative effects that have occurred to wildlife resources and waters as a result of Section 404 permitted activities within and around the White Tanks, as required by the 404(b)(1) Guidelines (40 CFR, Part 230.11). It may be prudent to develop a comprehensive strategy to address and remedy the cumulative adverse environmental impacts of Section 404 permitted activities, especially urbanization, within this geographic area.

We request that, when completed, the draft EA and any other applicable assessments be submitted to our office so we may evaluate the significance of environmental impact and conduct a thorough review of the proposed project. We further request that the mitigation plan be modified as suggested, and then provided to our office so that we may evaluate effectiveness of the plan.. Based on these concerns, the Service objects to the issuance of this permit until and unless we are provided an opportunity to review the EA and revised mitigation plan and provide substantive comments and recommendations in accordance with the FWCA and section 404(m) of the CWA.

If we can be of further assistance please contact Mike Martinez (x224) or Don Metz (x217).

Sincerely,

for David L. Harlow
Field Supervisor

cc: Regional Administrator, Environmental Protection Agency, San Francisco, CA
Supervisor, Project Evaluation Programs, Arizona Game and Fish Department, Phoenix, AZ

W:\Mike Martinez\Whitestone-pn.wpd:cgg

Literature Cited

Bellantori, E.S., and P.R. Krausman. 1993. Habitat use by collared peccaries in an urban environment. The Southwestern Naturalist. 38(4):345-351.

Briggs, M.K., L. Harris, J. Howe, and W. Halverson. 1996. Using long-term monitoring to understand how adjacent land development affects natural areas: An example from Saguaro National Park, Arizona (USA). Natural Areas Journal. Volume 16(4).

Dunne, T., and L.B. Leopold. 1978. Water in environmental planning. Freeman Press, San Francisco, CA.

Jakle, M.D., and T.A. Gatz. 1985. Herpetofaunal use of four habitats of the Middle Gila River Drainage, Arizona. In Riparian ecosystems and their management: Reconciling conflicting uses. First North American Riparian Conference. April 16-18, 1985, Tucson, Arizona.

Jones, K.B., L.P. Kepner, and T.E. Martin. 1985. Species of reptiles occupying habitat islands in Western Arizona: a deterministic assemblage. Oecologia. 66:595-60.

Jones and Stokes; Wood, Patel and Associates, Inc.; EDAW, Inc.; Senna Environmental Services; and Withey, Tobin, and Morris. 2001. The Whitestone Project. Least Environmentally Damaging Practicable Alternatives Analysis. March.

Knight, R.L., G.N. Wallace, and W.E. Riebsame. 1995. Ranching the view: Subdivisions versus agriculture. Conservation Biology. Vol. 9, No. 2, p459-461.

Krausman, P.R., K.R. Rautenstrauch, and B.D. Leopold. 1985. Xeroriparian systems used by desert mule deer in Texas and Arizona. In Riparian ecosystems and their management: Reconciling conflicting uses. First North American Riparian Conference. April 16-18, 1985, Tucson, Arizona.

Leopold, L.B. 1994. A view of the river. Harvard University Press, Cambridge, MA. 298 pp.

Marzluff, J.M. 1997. Effects of urbanization and recreation on songbirds. Chapter 5 *In* Songbird ecology in southwestern ponderosa pine forests: a literature review. Technical editors W.M. Block and D.M. Finch. General Technical Report RM-GTR-292. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station.

Senna Environmental Services. 2001. Conceptual Mitigation Plan. The Whitestone Project. Buckeye, Maricopa County, Ariozona. March 15.

Schurcliff, K.S. 1980. Vegetation and bird community characteristics in an Australian and mountain range. J. Arid Environ. 3:331-348.

Shaw, W.W. 1998. National park resources and urban growth: The effects of urban land uses along the boundaries of Saguaro National Park. In First conference on research and resource management in Southern Arizona national park areas: Extended abstracts. Edited by T.J. Tibbets and G.J. Maender. Organ Pipe National Monument and Cooperative Park Studies Unit, The University of Arizona, Tucson.

Szaro, R.C., and M.D. Jakle. 1985. Avian use of a desertscrub riparian island and its adjacent scrub habitat. The Condor. 87:511-519.

Copies Furnished:

Steven L. Spangle
Arizona Ecological Services Field Office
U.S. Fish and Wildlife Service
2321 West Royal Palm Road, Suite 103
Phoenix, Arizona 85021-4951

Tim Vendlinski
Wetlands Regulatory Office (WTR-8)
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, California 94105

Bob Broscheid
Habitat Branch
Arizona Game and Fish Department
2222 West Greenway Road
Phoenix, Arizona 85023

Robert Scalamera
Arizona Department of Environmental Quality
Surface Water Section/401 Certifications
1110 West Washington Street (mailstop 5415A-1)
Phoenix, Arizona 85007-2952

U.S. Department of Homeland Security
111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

February 5, 2010

Mr. Steve Spangle
Field Supervisor
2321 W. Royal Palm Road,
Suite 103
Phoenix, AZ 85021

RE: EMW-2009-FC-03256

Dear Mr. Spangle:

The Department of Homeland Security Federal Emergency Management Agency (FEMA) is considering an America Recovery and Reinvestment Act (ARRA) application to provide financial assistance in support of the town of Buckeye's (Grantee) proposal to construct a 11,798 square foot, two-story, 4-bay fire station at 2582 North Verrado Way, Buckeye, Maricopa County. The Grantee's proposal would replace an unsafe and uninhabitable temporary fire station and fulfill a critical fire protection need due to increased service demand. The site is part of the larger 486 acre Whitestone Master Planned Community Development project. Planned surrounding development includes both commercial and residential uses. A Phase I Environmental Site Assessment (ESA) was completed in December of 2004 which reported that the larger parcel consisted of vacant natural desert habitat with indigenous grasses, trees, shrubs and bushes although some of the site had been massed graded for residential development and cleared of vegetation. In addition, construction of infrastructure was underway.

On January 16, 2002, the DMB White Tank, LLC was issued a DA Permit No. 974-0218-RWF to impact a total of 41.40 acres of waters of the United States during the course of constructing the Whitestone community. A Special Condition to this permit required the permittee to implement in full the terms and conditions of the Habitat Mitigation and Monitoring Plan dated November 2001 prepared by Senna Environmental. The permit also provided guidelines for the handling of Sonoran Desert Tortoises. The USACE issued an extension to the permit on August 1, 2006 extending it to January 15, 2012. Your office was notified of this extension.

FEMA has reviewed the Arizona Ecological Services County Listing for Maricopa County and has determined the only listed species that may inhabit the site is the endangered Lesser long-nosed bat (*Leptonycteris curasoae yerbabuenae*). However, in accordance with Section 7 of the Endangered Species (16 U.S.C. §1531 et seq. (1973)) we advise you of our finding of not likely to adversely affect any listed endangered or threatened species.

FEMA requests your concurrence with our determination and anticipates your response within 30 days of receipt of this letter. Enclosed for your use is a location map and photographs of the proposed work. If you need any further information please contact me at (510) 627-7728 or donna.meyer@dhs.gov.

Sincerely,

Donna M. Meyer
Deputy Regional Environmental Officer

Enclosures

Maricopa County

COMMON NAME	SCIENTIFIC NAME	STATUS	DESCRIPTION	COUNTY	ELEVATION	HABITAT	COMMENTS
Arizona cliffrose	*Purshia subintegra*	Endangered	Evergreen shrub of the rose family (Roseaceae). Bark pale gray and shreddy. Young twigs covered with dense hairs. Leaves have 1-5 lobes and edges curl downward (revolute). Flowers: 5 petals, white or yellow <0.5 inches long.	Graham, Maricopa, Mohave, Yavapai	< 4,000 ft	White limestone soils derived from tertiary lakebed deposits.	Occurs in central Arizona at Horseshoe Lake, in the Burro Creek drainage, and near Cottonwood in the Verde Valley.
Bald eagle	*Haliaeetus leucocephalus*	Threatened	Large, adults have white head and tail. Height 28-38 inches; wingspan 66-96 inches. Dark with varying degrees of mottled brown plumage. Feet bare of feathers.	Gila, Graham, La Paz, Maricopa, Mohave, Pinal, Yavapai, Yuma	Varies	Large trees or cliffs near water (reservoirs, rivers, and streams) with abundant prey.	Some birds are nesting residents while a larger number winters along rivers and reservoirs. Once endangered (32 FR 4001, 03-11-1967; 43 FR 6233, 02-14-78) because of reproductive failures from pesticide poisoning and loss of habitat, this species was downlisted to threatened on August 11, 1995, and delisted August 8, 2007. Threatened status reinstated for Desert nesting bald eagles.
California Least Tern	*Sterna antillarum browni*	Endangered	Least terns are smallest of the North American Terns. Body length is 21 to 24 cm (8 to 9 inches) with a wingspan of 45 to 51cm (18 to 20 inches). Characterized by a black crown and loral stripe on their head, snowy white forehead and underside, and gray upperparts. Outer two primaries are black, bill is yellow or orange with black tip, and legs are orange. Males have a wider dark loral stripe but sexes are mostly distinguished by behavior. Immatures have darker plummage, dark bill, and dark eye strips on white heads.	Maricopa, Mohave, Pima	< 2,000 ft	Open, bare or sparsely vegetated sand, sandbars, gravel pits, or exposed flats along shorelines of inland rivers, lakes, reservoirs, or drainage systems.	Breeding occasionally documented in Arizona; migrants may occur more frequently. Feeds primarily on fish in shallow waters and secondarily on invertebrates. Nests in a simple scrape on sandy or gravelly soil.

COMMON NAME	SCIENTIFIC NAME	STATUS	DESCRIPTION	COUNTY	ELEVATION	HABITAT	COMMENTS
Desert pupfish	*Cyprinodon macularius*	Endangered	Small (2 inches) smoothly rounded body shape with narrow vertical bars on the sides. Breeding males blue on head and sides with yellow on tail. Females and juveniles tan to olive colored back and silvery sides.	Cochise, Graham, Maricopa, Pima, Pinal, Santa Cruz, Yavapai	< 4,000 ft	Shallow springs, small streams, and marshes. Tolerates saline and warm water.	Two subspecies are recognized: Desert Pupfish (C.m. macularis) and Quitobaquito Pupfish (C.m. eremus). Critical habitat includes Quitobaquito Springs, Pima County, portions of San Felipe Creek, Carrizo Wash, and Fish Creek Wash, Imperial County, California.
Gila topminnow	*Poeciliopsis occidentalis occidentalis*	Endangered	Small (2 inches), guppy-like, live bearing, lacks dark spots on its fins. Breeding males are jet black with yellow fins.	Cochise, Gila, Graham, Maricopa, Pima, Santa Cruz, Yavapai	< 4,500 ft	Small streams, springs, and cienegas vegetated shallows.	Species historically also occurred in backwaters of large rivers but is currently isolated to small streams and springs.
Lesser long-nosed bat	*Leptonycteris curasoae yerbabuenae*	Endangered	Elongated muzzle, small leaf nose, and long tongue. Yellowish brown or gray above and cinnamon brown below. Tail minute and appears to be lacking. Easily disturbed.	Cochise, Gila, Graham, Greenlee, Maricopa, Pima, Pinal, Santa Cruz, Yuma	1,600-11,500 ft	Desert scrub habitat with agave and columnar cacti present as food plants.	Day roosts in caves and abandoned tunnels. Forages at night on nectar, pollen, and fruit of paniculate agaves and columnar cacti. This species is migratory and is present in Arizona usually from April to September and south of the border the remainder of the year.
Mexican spotted owl	*Strix occidentalis lucida*	Threatened	Medium sized with dark eyes and no ear tufts. Brownish and heavily spotted with white or beige.	Apache, Cochise, Coconino, Gila, Graham, Greenlee, Maricopa, Mohave, Navajo, Pima, Pinal, Santa Cruz, Yavapai	4,100-9,000 ft	Nests in canyons and dense forests with multi-layered foliage structure.	Generally nest in older forests of mixed conifer or ponderosa pine/gambel oak type, in canyons, and use variety of habitats for foraging. Sites with cool microclimates appear to be of importance or are preferred. Critical habitat was finalized on August 31, 2004 (69 FR 53182) in Arizona in Apache, Cochise, Coconino, Gila, Graham, Greenlee, Maricopa, Navajo, Pima, Pinal, Santa Cruz, and Yavapai counties.
Razorback sucker	*Xyrauchen texanus*	Endangered	Large, up to 3 feet long and up to 6 lbs, high sharp-edged keel-like hump behind the head. Head flattened on top. Olive-brown above to yellowish below.	Coconino, Gila, Graham, Greenlee, La Paz, Maricopa, Mohave, Pinal, Yavapai, Yuma	< 6,000 ft	Riverine and lacustrine areas, generally not in fast moving water and may use backwaters.	Big River fish also found in Horseshoe reservoir (Maricopa County). Critical habitat includes the 100-year floodplain of the river through the Grand Canyon from confluence with Paria River to Hoover Dam; Hoover Dam to Davis Dam; Parker Dam to Imperial Dam. Also Gila River from Arizona/New Mexico border to Coolidge Dam; and Salt River from Hwy 60/SR77 Bridge to Roosevelt Dam; Verde River from FS boundary to Horseshoe Lake.

COMMON NAME	SCIENTIFIC NAME	STATUS	DESCRIPTION	COUNTY	ELEVATION	HABITAT	COMMENTS
Sonoran pronghorn	*Antilocapra americana sonoriensis*	Endangered	Upperparts tan; underparts, rump, and two bands across the neck are white. Male has two black cheek pouches. Hoofed with slightly curved black horns having a single prong. Smallest and palest of the pronghorn subspecies.	Maricopa, Pima, Yuma	2,000-4,000 ft	Broad intermountain alluvial valleys with creosote-bursage and palo verde-mixed cacti associations.	Typically, bajadas are used as fawning areas and sandy dune areas provide food seasonally. Cacti (jumping cholla) appears to make up substantial part of diet. This subspecies also occurs in Mexico.
Southwestern willow flycatcher	*Empidonax traillii extimus*	Endangered	Small passerine (about 6 inches) grayish-green back and wings, whitish throat, light olive-gray breast and pale yellowish belly. Two wingbars visible. Eye-ring faint or absent.	Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Maricopa, Mohave, Navajo, Pima, Pinal, Santa Cruz, Yavapai, Yuma	< 8,500 ft	Cottonwood/willow and tamarisk vegetation communities along rivers and streams.	Migratory riparian-obligate species that occupies breeding habitat from late April to September. Distribution within its range is restricted to riparian corridors. Difficult to distinguish from other members of the Empidonax complex by sight alone. Training seminar required for those conducting flycatcher surveys. Critical habitat was finalized on October 19, 2005 (50 CFR 60886). In Arizona there are critical habitat segments in Apache, Cochise, Gila, Graham, Greenlee, Maricopa, Mohave, Pima, Pinal, and Yavapai counties.
Woundfin	*Plagopterus argentissimus*	Endangered	Small (4 inches) silver minnow with fairly large fins and a sharp dorsal fin spine.	Mohave and Maricopa	< 4,500 ft	Inhabits shallow, warm, turbid, fast-flowing water. Tolerates high salinity.	Native population only in Virgin River. Designated critical habitat includes the Virgin River and its 100-year floodplain. Experimental non-essential populations (50 FR 30193, 07-24-1985) designated in portions of the Verde, Gila, San Francisco, and Hassayampa rivers and Tonto Creek. Species also occurs in Washington County, UT and Clark County, NV.
Yuma clapper rail	*Rallus longirostris yumanensis*	Endangered	Water bird with long legs and short tail. Long, slender decurved bill. Mottled brown or gray on its rump. Flanks and undersides are dark gray with narrow vertical stripes producing a barring effect.	Gila, La Paz, Maricopa, Mohave, Pinal, Yuma	< 4,500 ft	Fresh water and brackish marshes.	Species is associated with dense emergent riparian vegetation. Requires wet substrate (mudflat, sandbar) with dense herbaceous or woody vegetation for nesting and foraging. Channelization and marsh destruction are primary sources of habitat loss.

COMMON NAME	SCIENTIFIC NAME	STATUS	DESCRIPTION	COUNTY	ELEVATION	HABITAT	COMMENTS
Roundtail Chub	*Gila robusta*	Candidate	Member of the minnow family Cyprinidae and characterized by streamlined body shape. Color usually olive gray with silvery sides and a white belly. Breeding males develop red or orange coloration on the lower half of the cheeks and on the bases of paired fins. Individuals may reach 49.0 cm (19.3 in) but usually average 25-30 cm (9.8 - 11.8 in).	Apache, Coconino, Gila, Graham, Greenlee, LaPaz, Maricopa, Mohave, Navajo, Pinal, and Yavapai	1,000-7,500 ft.	Cool to warm waters of rivers and streams, often occupy the deepest pools and eddies of large streams.	Historical range of roundtail chub included both the upper and lower Colorado River basins. A 2009 status review determined that the lower Colorado River basin roundtail chub population segment (Arizona and New Mexico) qualifies as a distinct vertebrate population segment (DPS). Populations in the Little Colorado, Bill Williams, and Gila River basins are considered candidate species.
Yellow-billed cuckoo	*Coccyzus americanus*	Candidate	Medium-sized bird with a slender, long-tailed profile, slightly down-curved bill that is blue-black with yellow on the lower half. Plumage is grayish-brown above and white below, with rufous primary flight feathers.	Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Maricopa, Mohave, Navajo, Pima, Pinal, Santa Cruz, Yavapai, Yuma	< 6,500 ft	Large blocks of riparian woodlands (cottonwood, willow, or tamarisk galleries).	Neotropical migrant that winters primarily in South America and breeds primarily in the U.S. (but also in southern Canada and northern Mexico). As a migrant it is rarely detected; can occur outside of riparian areas. Cuckoos are found nesting statewide, mostly below 5,000 feet in central, western, and southeastern Arizona. Concern for cuckoos are primarily focused upon alterations to its nesting and foraging habitat. Nesting cuckoos are associated with relatively dense, wooded, streamside riparian habitat, with varying combinations of Fremont cottonwood, willow, velvet ash, Arizona walnut, mesquite, and tamarisk. Some cuckoos have also been detected nesting in velvet mesquite, netleaf hackberry, Arizona sycamore, Arizona alder, and some exotic neighborhood shade trees.

COMMON NAME	SCIENTIFIC NAME	STATUS	DESCRIPTION	COUNTY	ELEVATION	HABITAT	COMMENTS
American peregrine falcon	*Falco peregrinus anatum*	Delisted	A crow-sized falcon with slate blue-gray on the back and wings, and white on the underside; a black head with vertical "bandit's mask" pattern over the eyes; long pointed wings; and a long wailing call made during breeding. Very adept flyers and hunters, reaching diving speeds of 200 mph.	Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Maricopa, Mohave, Navajo, Pima, Pinal, Santa Cruz, Yavapai, Yuma	3,500-9,000 ft	Areas with rocky, steep cliffs, primarily near water, where prey (primarily shorebirds, songbirds, and waterfowl) concentrations are high. Nests are found on ledges of cliffs, and sometimes on man-made structures such as office towers and bridge abutments.	Species recovered with over 1,650 breeding birds in the US and Canada.
Arizona agave	*Agave arizonica*	Delisted	Member of the agave family. Has rosettes of bright green leaves, 17-24cm long and 2-4cm wide, broadest in the middle. Flowers are small, pale yellow, and jar shaped.	Gila, Maricopa, Yavapai	3,600-5,800 ft	Occurs on open slopes in chaparral or juniper grasslands. Prefers shallow, cobbled, and gravelly soils on steep slopes.	Arizona agave is a hybrid produced by a crossing of two other common agave species (A. chrysantha x A. toumeyana ssp. toumeyana).
California brown pelican	*Pelecanus occidentalis californicus*	Delisted	Large, dark gray-brown water bird with webbed feet, pouch underneath its long bill, and wingspan of 7 ft. Adults have a white head and neck, brownish black breast, and silver gray upper parts.	Gila, La Paz, Maricopa, Mohave, Pinal, Yuma	Varies	Coastal land and islands; species found occasionally around Arizona's lakes and rivers.	Considered an uncommon transient in Arizona. Most observations recorded along the Colorado River and in the Gila Valley. Individuals known to wander up from Mexico in summer and fall. No breeding has been documented in Arizona. Delisted on December 17, 2009.

United States Department of the Interior
U.S. Fish and Wildlife Service
Arizona Ecological Services Field Office
2321 West Royal Palm Road, Suite 103
Phoenix, Arizona 85021-4951
Telephone: (602) 242-0210 Fax: (602) 242-2513

In Reply Refer to:
AESO/SE
22410-2010-I-0322
22410-2001-CPA-0003

April 13, 2010

Ms. Donna M. Meyer
Deputy Regional Environmental Officer
U.S. Department of Homeland Security
Federal Emergency Management Agency, Region IX
1111 Broadway, Suite 1200
Oakland, California 94607-4052

Dear Ms. Meyer

Thank you for your correspondence of February 5, 2010, received by us on February 11, requesting our concurrence with your determination that the construction of a 4-bay fire station at 2582 North Verrado Way, Buckeye, Maricopa County, "may affect, but is not likely to adversely affect," the lesser long-nosed bat (*Leptonycteris curasoae yerbabuenae*) in accordance with section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et. seq.). We concur with your determination based on the following:

- Photos provided with your letter reveal the site is sparsely vegetated and contains no columnar cacti that could be used for forage by the bat.
- Photos provided with your letter reveal that no adits, caves, or other suitable roosting sites occur on site.

No further review is required for this project at this time. Should the project site change or if additional information on the distribution of listed or proposed species becomes available, this determination may need to be reconsidered. We encourage you to coordinate review of this project with the Arizona Game and Fish Department and the U.S. Army Corps of Engineers. Should you require further assistance or have any questions, please contact Mike Martinez (x224) or Debra Bills (x239).

Sincerely,

Debra T. Bills

for Steven L. Spangle
Field Supervisor

cc: Chief, Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ
Chief, Regulatory Branch, U.S. Army Corps of Engineers, Phoenix, AZ

W:\Mike Martinez\Section7\Whitestone_Fire_Dept.docx: jkey

SHPO-2010-0238(1742)

U.S. Department of Homeland Security
Region IX
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

RECEIVED
FEB 2 6 2010
By

RECEIVED
DS
FEB 10 2010
2/11/10

February 5, 2010

Mr. James Garrison
State Historic Preservation Officer
1300 W. Washington Street
Phoenix, AZ 85007
Attention: Ms. Jo Anne Medley

Re: EMW-2009-FC-03256(1)
Town of Buckeye Fire Department

Dear Mr. Garrison:

The Department of Homeland Security Federal Emergency Management Agency (FEMA) is considering an American Recovery and Reinvestment (ARRA) grant application to provide financial assistance in support of the Town of Buckeye Fire Department's (Grantee) proposal to construct a 11,798 square foot, two-story, 4-bay fire station at 2582 North Verrado Way, Buckeye, Maricopa County (Gila & Salt River Meridian T2N, R2W, sec31). The Grantee's proposal would replace an unsafe and uninhabitable located at the former Catepillar proving ground building. In addition, the new fire station would enhance service delivery and reduce the response times to the freeway. FEMA's action of providing a grant supporting the Grantee's need meets the definition of an undertaking in accordance with 36 CFR Part 800.16(y) and therefore requires the completion of Section 106 review in accordance with the National Historic Preservation Act of 1966 (Title 16 United States Code Section 470f), as amended.

The site is part of the Whitestone Master Planned community and is currently zoned for residential and light industry. Planned land uses will include office complex on the north; shopping center on the east; medium density residential on the south and west. Presently, the north, south and west contain building pads ready for construction while the east across Verrado Way is undeveloped. FEMA has identified an Area of Potential Effect (APE) as the building footprint, asphalt/concrete pavement area for a total area of 1.3 acres (51,145sf). FEMA has determined that the Grantee's proposal and FEMA's subsequent undertaking will result in no historic properties affected pursuant to 36 CFR Part 800.4(d)(1).

FEMA requests your concurrence on our finding and have enclosed documentation in accordance with 36 CFR Part 800.11(d). If you should require any additional information about FEMA's request, please do not hesitate to contact me at (510) 627-7728 or donna.meyer@dhs.gov.

Sincerely,

Donna M. Meyer
Deputy Environmental and
Historic Preservation Officer

Enclosures

No Historic Properties Affected
12FEB10
Arizona State Historic Preservation Office
Arizona State Parks Board

U.S. Department of Homeland Security
111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

February 5, 2010

Mr. Raphael Bear, President
Fort McDowell Yavapai Nation
P.O. Box 17779
Fountain Hills, AZ 85268

Re: EMW-2009-FC-03256 – Town of Buckeye Fire Department
EMW-2009-FC-02614 – Gilbert Fire Department
EMW-2009-FC-00917(1) – City of Mesa Fire Department
EMW-2009-FC-00917(2) – City of Mesa Fire Department

Dear President Bear:

Section 101(d)(6)(B) of the National Historic Preservation Act of 1966 as amended requires the Department of Homeland Security – Federal Emergency Management Agency (FEMA) to consult with any Indian Tribe that may attach religious and cultural significance to historic properties that may be affected by FEMA's undertaking. FEMA is considering four America Recovery and Reinvestment Act (ARRA) grant applications to the Grantees listed above. All four of the ARRA proposals would be Assistance to Firefighter grants for the construction of new fire stations located throughout Maricopa County. The specific locations are identified below:

Town of Buckeye Fire Department – 2582 North Verrado Way, Buckeye. (T2N, R2W, Sec 31)(33° 28' 31"N, -112° 30' 12"W);

Gilbert Fire Department – 1280 West Guadalupe Road, Gilbert. (T1S, R15E)(33°21.8585'N, -111°49.0756'W);

City of Mesa Fire Department – 3361 South Signal Butte Road, Mesa (T1S,R7E, Sec 12)(33°21'13"N, -111°36'3"W);

City of Mesa Fire Department – SW corner of South 58th Street and East Main Street, Mesa (T1N, R6E, Sec 23)(33°24'55"N, -111°42'10"W).

Each of the new fire stations would occupy between 1.3 and 3 acres in size. The new fire stations would fulfill a critical fire protection need due to increased service demand and would decrease current response times.

Because potential direct and indirect impacts of the Grantee's proposal may have an effect on historic properties we respectfully request your interest regarding the proposals, any comments regarding historic properties, advise us on the identification and evaluation of any historic properties, including those of traditional religious and cultural importance, articulate your views on the Grantees proposals and FEMA's undertaking on such historic properties, and to participate in the resolution of any adverse effects.

If you have any questions or require additional information please do not hesitate to contact me at (510) 627-7728, the letterhead address above or donna.meyer@dhs.gov.

Sincerely,

Donna M. Meyer
Deputy Environmental and Historic
Preservation Officer

Enclosure

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

February 5, 2010

Mr. William Rhodes, Governor
Gila River Indian Community of the Gila River Indian
P.O. Box 97
Sacaton, AZ 85247

Re: EMW-2009-FC-03256 – Town of Buckeye Fire Department
EMW-2009-FC-02614 – Gilbert Fire Department
EMW-2009-FC-00917(1) – City of Mesa Fire Department
EMW-2009-FC-00917(2) – City of Mesa Fire Department

Dear Governor Rhodes:

Section 101(d)(6)(B) of the National Historic Preservation Act of 1966 as amended requires the Department of Homeland Security – Federal Emergency Management Agency (FEMA) to consult with any Indian Tribe that may attach religious and cultural significance to historic properties that may be affected by FEMA's undertaking. FEMA is considering four America Recovery and Reinvestment Act (ARRA) grant applications to the Grantees listed above. All four of the ARRA proposals would be Assistance to Firefighter grants for the construction of new fire stations located throughout Maricopa County. The specific locations are identified below:

Town of Buckeye Fire Department – 2582 North Verrado Way, Buckeye. (T2N, R2W, Sec 31)(33° 28' 31"N, -112° 30' 12"W);

Gilbert Fire Department – 1280 West Guadalupe Road, Gilbert. (T1S, R15E)(33°21.8585'N, -111°49.0756'W);

City of Mesa Fire Department – 3361 South Signal Butte Road, Mesa (T1S,R7E, Sec 12)(33°21'13"N, -111°36'3"W);

City of Mesa Fire Department – SW corner of South 58th Street and East Main Street, Mesa (T1N, R6E, Sec 23)(33°24'55"N, -111°42'10"W).

Each of the new fire stations would occupy between 1.3 and 3 acres in size. The new fire stations would fulfill a critical fire protection need due to increased service demand and would decrease current response times.

Because potential direct and indirect impacts of the Grantee's proposal may have an effect on historic properties we respectfully request your interest regarding the proposals, any comments regarding historic properties, advise us on the identification and evaluation of any historic properties, including those of traditional religious and cultural importance, articulate your views on the Grantees proposals and FEMA's undertaking on such historic properties, and to participate in the resolution of any adverse effects.

If you have any questions or require additional information please do not hesitate to contact me at (510) 627-7728, the letterhead address above or donna.meyer@dhs.gov.

Sincerely,

Donna M. Meyer
Deputy Environmental and Historic
Preservation Officer

Enclosure

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

February 5, 2010

Mr. Wendsler Nosie, Chairperson
San Carlos Apache Tribe of the
San Carlos Reservation
P.O. Box 0
San Carlos, AZ 85550

Re: EMW-2009-FC-03256 – Town of Buckeye Fire Department
EMW-2009-FC-02614 – Gilbert Fire Department
EMW-2009-FC-00917(1) – City of Mesa Fire Department
EMW-2009-FC-00917(2) – City of Mesa Fire Department

Dear Chairperson Nosie:

Section 101(d)(6)(B) of the National Historic Preservation Act of 1966 as amended requires the Department of Homeland Security – Federal Emergency Management Agency (FEMA) to consult with any Indian Tribe that may attach religious and cultural significance to historic properties that may be affected by FEMA's undertaking. FEMA is considering four America Recovery and Reinvestment Act (ARRA) grant applications to the Grantees listed above. All four of the ARRA proposals would be Assistance to Firefighter grants for the construction of new fire stations located throughout Maricopa County. The specific locations are identified below:

Town of Buckeye Fire Department – 2582 North Verrado Way, Buckeye. (T2N, R2W, Sec 31)(33° 28' 31"N, -112° 30' 12"W);

Gilbert Fire Department – 1280 West Guadalupe Road, Gilbert. (T1S, R15E)(33°21.8585'N, -111°49.0756'W);

City of Mesa Fire Department – 3361 South Signal Butte Road, Mesa (T1S,R7E, Sec 12)(33°21'13"N, -111°36'3"W);

City of Mesa Fire Department – SW corner of South 58th Street and East Main Street, Mesa (T1N, R6E, Sec 23)(33°24'55"N, -111°42'10"W).

Each of the new fire stations would occupy between 1.3 and 3 acres in size. The new fire stations would fulfill a critical fire protection need due to increased service demand and would decrease current response times.

Because potential direct and indirect impacts of the Grantee's proposal may have an effect on historic properties we respectfully request your interest regarding the proposals, any comments regarding historic properties, advise us on the identification and evaluation of any historic properties, including those of traditional religious and cultural importance, articulate your views on the Grantees proposals and FEMA's undertaking on such historic properties, and to participate in the resolution of any adverse effects.

If you have any questions or require additional information please do not hesitate to contact me at (510) 627-7728, the letterhead address above or donna.meyer@dhs.gov.

Sincerely,

Donna M. Meyer
Deputy Environmental and Historic
Preservation Officer

Enclosure

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

February 5, 2010

Mr. Ned Norris, Chairman
Tohono O'odham Nation of Arizona
P.O. Box 837
Sells, AZ 85634

Re: EMW-2009-FC-03256 – Town of Buckeye Fire Department
EMW-2009-FC-02614 – Gilbert Fire Department
EMW-2009-FC-00917(1) – City of Mesa Fire Department
EMW-2009-FC-00917(2) – City of Mesa Fire Department

Dear Chairman Norris:

Section 101(d)(6)(B) of the National Historic Preservation Act of 1966 as amended requires the Department of Homeland Security – Federal Emergency Management Agency (FEMA) to consult with any Indian Tribe that may attach religious and cultural significance to historic properties that may be affected by FEMA's undertaking. FEMA is considering four America Recovery and Reinvestment Act (ARRA) grant applications to the Grantees listed above. All four of the ARRA proposals would be Assistance to Firefighter grants for the construction of new fire stations located throughout Maricopa County. The specific locations are identified below:

Town of Buckeye Fire Department – 2582 North Verrado Way, Buckeye. (T2N, R2W, Sec 31)(33° 28' 31"N, -112° 30' 12"W);

Gilbert Fire Department – 1280 West Guadalupe Road, Gilbert. (T1S, R15E)(33°21.8585'N, -111°49.0756'W);

City of Mesa Fire Department – 3361 South Signal Butte Road, Mesa (T1S,R7E, Sec 12)(33°21'13"N, -111°36'3"W);

City of Mesa Fire Department – SW corner of South 58th Street and East Main Street, Mesa (T1N, R6E, Sec 23)(33°24'55"N, -111°42'10"W).

Each of the new fire stations would occupy between 1.3 and 3 acres in size. The new fire stations would fulfill a critical fire protection need due to increased service demand and would decrease current response times.

Because potential direct and indirect impacts of the Grantee's proposal may have an effect on historic properties we respectfully request your interest regarding the proposals, any comments regarding historic properties, advise us on the identification and evaluation of any historic properties, including those of traditional religious and cultural importance, articulate your views on the Grantees proposals and FEMA's undertaking on such historic properties, and to participate in the resolution of any adverse effects.

If you have any questions or require additional information please do not hesitate to contact me at (510) 627-7728, the letterhead address above or donna.meyer@dhs.gov.

Sincerely,

Donna M. Meyer
Deputy Environmental and Historic
Preservation Officer

Enclosure

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

February 5, 2010

Ms. Delia Carlyle, Chairperson
Ak Chin Indian Community of the Marcopa
42507 W. Peters & Nall Road
Maricopa, AZ 85239

Re: EMW-2009-FC-03256 – Town of Buckeye Fire Department
EMW-2009-FC-02614 – Gilbert Fire Department
EMW-2009-FC-00917(1) – City of Mesa Fire Department
EMW-2009-FC-00917(2) – City of Mesa Fire Department

Dear Chairperson Carlyle:

Section 101(d)(6)(B) of the National Historic Preservation Act of 1966 as amended requires the Department of Homeland Security – Federal Emergency Management Agency (FEMA) to consult with any Indian Tribe that may attach religious and cultural significance to historic properties that may be affected by FEMA's undertaking. FEMA is considering four America Recovery and Reinvestment Act (ARRA) grant applications to the Grantees listed above. All four of the ARRA proposals would be Assistance to Firefighter grants for the construction of new fire stations located throughout Maricopa County. The specific locations are identified below:

Town of Buckeye Fire Department – 2582 North Verrado Way, Buckeye. (T2N, R2W, Sec 31)(33° 28' 31"N, -112° 30' 12"W);

Gilbert Fire Department – 1280 West Guadalupe Road, Gilbert. (T1S, R15E)(33°21.8585'N, -111°49.0756'W);

City of Mesa Fire Department – 3361 South Signal Butte Road, Mesa (T1S,R7E, Sec 12)(33°21'13"N, -111°36'3"W);

City of Mesa Fire Department – SW corner of South 58th Street and East Main Street, Mesa (T1N, R6E, Sec 23)(33°24'55"N, -111°42'10"W).

Each of the new fire stations would occupy between 1.3 and 3 acres in size. The new fire stations would fulfill a critical fire protection need due to increased service demand and would decrease current response times.

Because potential direct and indirect impacts of the Grantee's proposal may have an effect on historic properties we respectfully request your interest regarding the proposals, any comments regarding historic properties, advise us on the identification and evaluation of any historic properties, including those of traditional religious and cultural importance, articulate your views on the Grantees proposals and FEMA's undertaking on such historic properties, and to participate in the resolution of any adverse effects.

If you have any questions or require additional information please do not hesitate to contact me at (510) 627-7728, the letterhead address above or donna.meyer@dhs.gov.

Sincerely,

Donna M. Meyer
Deputy Environmental and Historic
Preservation Officer

Enclosure

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

February 5, 2010

Mr. Ronnie Lupe, Chairman
White Mountain Apache Tribe of the Fort Apache
P.O. Box 700
Whiteriver, AZ 85941

Re: EMW-2009-FC-03256 – Town of Buckeye Fire Department
EMW-2009-FC-02614 – Gilbert Fire Department
EMW-2009-FC-00917(1) – City of Mesa Fire Department
EMW-2009-FC-00917(2) – City of Mesa Fire Department

Dear Chairman Lupe:

Section 101(d)(6)(B) of the National Historic Preservation Act of 1966 as amended requires the Department of Homeland Security – Federal Emergency Management Agency (FEMA) to consult with any Indian Tribe that may attach religious and cultural significance to historic properties that may be affected by FEMA's undertaking. FEMA is considering four America Recovery and Reinvestment Act (ARRA) grant applications to the Grantees listed above. All four of the ARRA proposals would be Assistance to Firefighter grants for the construction of new fire stations located throughout Maricopa County. The specific locations are identified below:

Town of Buckeye Fire Department – 2582 North Verrado Way, Buckeye. (T2N, R2W, Sec 31)(33° 28' 31"N, -112° 30' 12"W);

Gilbert Fire Department – 1280 West Guadalupe Road, Gilbert. (T1S, R15E)(33°21.8585'N, -111°49.0756'W);

City of Mesa Fire Department – 3361 South Signal Butte Road, Mesa (T1S,R7E, Sec 12)(33°21'13"N, -111°36'3"W);

City of Mesa Fire Department – SW corner of South 58th Street and East Main Street, Mesa (T1N, R6E, Sec 23)(33°24'55"N, -111°42'10"W).

Each of the new fire stations would occupy between 1.3 and 3 acres in size. The new fire stations would fulfill a critical fire protection need due to increased service demand and would decrease current response times.

Because potential direct and indirect impacts of the Grantee's proposal may have an effect on historic properties we respectfully request your interest regarding the proposals, any comments regarding historic properties, advise us on the identification and evaluation of any historic properties, including those of traditional religious and cultural importance, articulate your views on the Grantees proposals and FEMA's undertaking on such historic properties, and to participate in the resolution of any adverse effects.

If you have any questions or require additional information please do not hesitate to contact me at (510) 627-7728, the letterhead address above or donna.meyer@dhs.gov.

Sincerely,

Donna M. Meyer
Deputy Environmental and Historic
Preservation Officer

Enclosure

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

February 5, 2010

Mr. Jamie Fullmer, Chairman
Yavapai-Apache Nation of the
Camp Verde Indian
2400 W. Datsi
Camp Verde, AZ 86322

Re: EMW-2009-FC-03256 – Town of Buckeye Fire Department
EMW-2009-FC-02614 – Gilbert Fire Department
EMW-2009-FC-00917(1) – City of Mesa Fire Department
EMW-2009-FC-00917(2) – City of Mesa Fire Department

Dear Chairman Fullmer:

Section 101(d)(6)(B) of the National Historic Preservation Act of 1966 as amended requires the Department of Homeland Security – Federal Emergency Management Agency (FEMA) to consult with any Indian Tribe that may attach religious and cultural significance to historic properties that may be affected by FEMA's undertaking. FEMA is considering four America Recovery and Reinvestment Act (ARRA) grant applications to the Grantees listed above. All four of the ARRA proposals would be Assistance to Firefighter grants for the construction of new fire stations located throughout Maricopa County. The specific locations are identified below:

Town of Buckeye Fire Department – 2582 North Verrado Way, Buckeye. (T2N, R2W, Sec 31)(33° 28' 31"N, -112° 30' 12"W);

Gilbert Fire Department – 1280 West Guadalupe Road, Gilbert. (T1S, R15E)(33°21.8585'N, -111°49.0756'W);

City of Mesa Fire Department – 3361 South Signal Butte Road, Mesa (T1S,R7E, Sec 12)(33°21'13"N, -111°36'3"W);

City of Mesa Fire Department – SW corner of South 58th Street and East Main Street, Mesa (T1N, R6E, Sec 23)(33°24'55"N, -111°42'10"W).

Each of the new fire stations would occupy between 1.3 and 3 acres in size. The new fire stations would fulfill a critical fire protection need due to increased service demand and would decrease current response times.

Because potential direct and indirect impacts of the Grantee's proposal may have an effect on historic properties we respectfully request your interest regarding the proposals, any comments regarding historic properties, advise us on the identification and evaluation of any historic properties, including those of traditional religious and cultural importance, articulate your views on the Grantees proposals and FEMA's undertaking on such historic properties, and to participate in the resolution of any adverse effects.

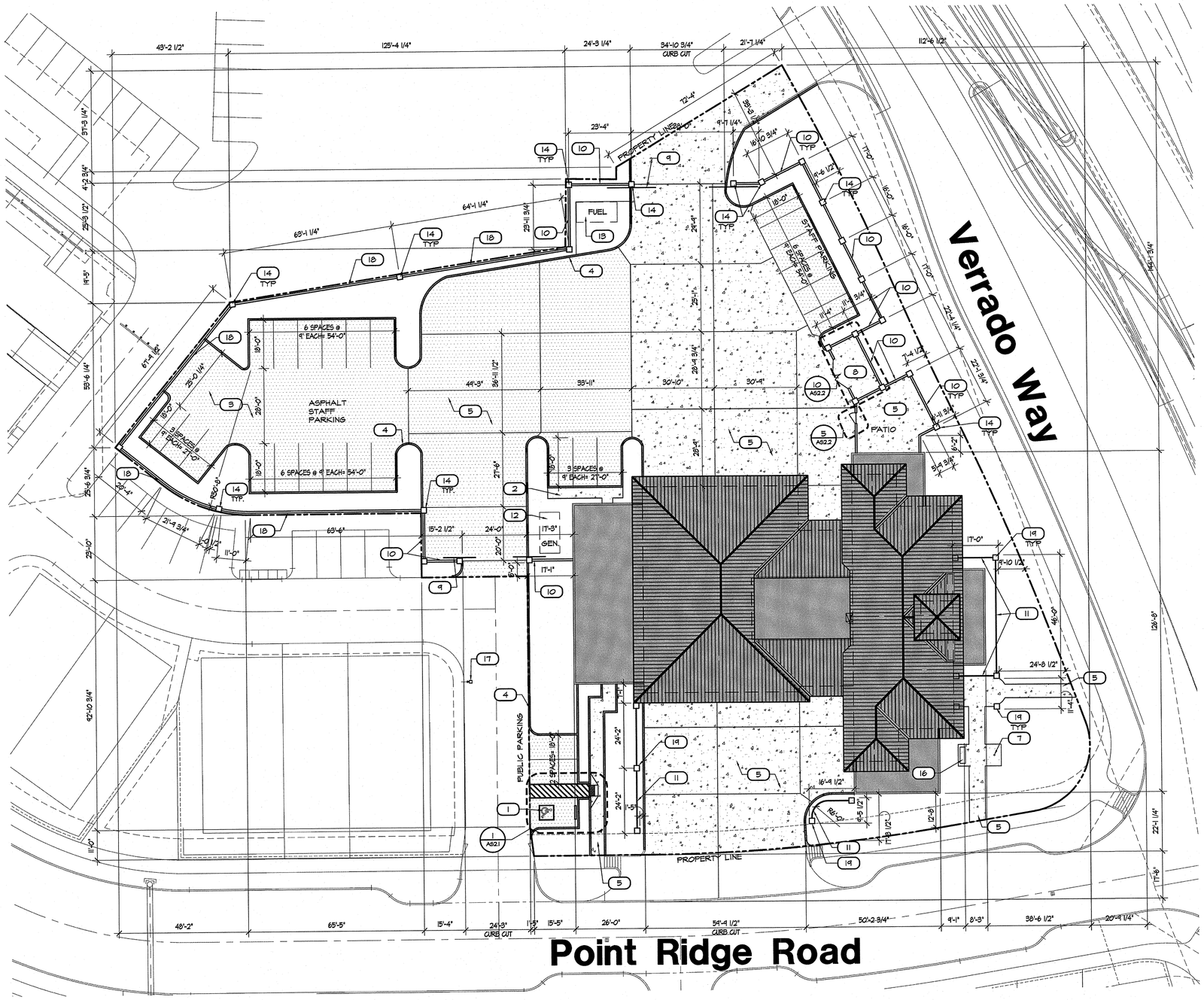
If you have any questions or require additional information please do not hesitate to contact me at (510) 627-7728, the letterhead address above or donna.meyer@dhs.gov.

Sincerely,

Donna M. Meyer
Deputy Environmental and Historic
Preservation Officer

Enclosure

APPENDIX C
ENGINEERING PLANS



1 **Site Plan**
SCALE: 1" = 20'-0"

KEYNOTES

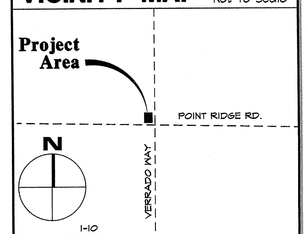
#	DESCRIPTION
1.	ADA ACCESSIBLE PARKING SPACE. PROVIDE SIGNAGE AND STRIPING AS REQUIRED BY COUNTY. REFER TO DETAILS ON SHEET AS2.1 FOR SIGNAGE.
2.	NOT USED
3.	ASPHALT PAVING - SEE CIVIL.
4.	CONCRETE CURBING-SEE CIVIL.
5.	CONCRETE PAVING - SEE CIVIL.
6.	NOT USED
7.	FLAG POLE, REFER TO 5/AS2.1 & SPECIFICATIONS.
8.	TRASH ENCLOSURE W/FABRICATED METAL GATES. SEE 10/AS2.2
9.	STEEL TUBE GATE W/ ROLLER ASSEMBLY. HY-SECURITY 222 SS. GATE OPERATOR, REFER TO 3 & 4/AS2.3
10.	6'-8" HIGH 'JUMBO' BRICK SCREEN FENCE W/24" SQ. JUMBO BRICK POSTS W/STONE OR CONC. TOP. REFER TO 8/AS2.3. REFER TO SITE PLAN FOR LOCATION AND SIZES.
11.	3'-0" HIGH MASTER HALCO STEEL FENCE SYSTEM. MONUMENTAL IRON WORKS-'OLDE TOWNE STYLE'- ST. CHARLES AVE. WITH 1 ROW 4" RINGS. PAINTED FINISH SELECTED FROM MANUFACTURER'S STANDARD OFFERINGS AS SELECTED BY ARCHITECT. REFER TO 11/AS2.3
12.	EMERGENCY GENERATOR. REFER TO ELECTRICAL DRAWINGS.
13.	FUELING STATION W/PREFABRICATED CONCRETE TANK.
14.	24" SQ. 'JUMBO' BRICK POST W/PRECAST OR STONE CAP. TOP OF BRICK MASONRY TO MATCH TOP OF ATTACHED SCREEN FENCE
15.	NOT USED
16.	6'-0"x2'-0"x1'-4" CONCRETE BENCH- SEE DETAIL 6/AS2.3
17.	KEY PAD AND CARD READER. SEE DETAIL 5/AS2.3
18.	PAINTED CONCRETE MASONRY UNIT SCREEN FENCE, 6'-8". MASONRY TO BE 8" X 8" X 16". REFER TO 9/AS2.3
19.	24" SQ. JUMBO BRICK MASONRY FENCE POST, 8'-0" TO TOP OF BRICK MASONRY W/PRECAST OR STONE CAP. REFER TO 10/AS2.3

GENERAL NOTES

1. ALL ITEMS NOTED AS EXISTING ARE TO REMAIN AS IS. PROTECT AND PRESERVE AS REQUIRED. CONTRACTOR TO BE HELD RESPONSIBLE FOR DAMAGES INCURRED THROUGHOUT CONSTRUCTION PERIOD. RESTRICT ACCESS OVER EXISTING CURBS. MOUND DIRT OVER CURBS TO PREVENT CRACKING. USE ALL MEANS POSSIBLE TO LEAVE EXISTING LANDSCAPING UNDISTURBED.
2. CONTRACTOR TO VERIFY ALL CONTROL JOINT LOCATIONS WITH ARCHITECT PRIOR TO LAYOUT.
3. REFERENCE CIVIL FOR FURTHER INFORMATION.

VICINITY MAP

Not To Scale



306020
Buckeye Fire House No. 3

Perlman
Architects of Arizona
PERLMAN ARCHITECTS OF ARIZONA, INC.
4150 N. DRINKWATER BLVD., SUITE 240
SCOTTSDALE, ARIZONA 85251
480.951.5900 480.951.3045 fax

Seal

ISSUED FOR 100% REVIEW 8.01.07

Buckeye Fire House No. 3

N.W.C. of Verrado Way & Point Ridge Road
Buckeye, Arizona

Drawn/Checked By
NR/WP/GA

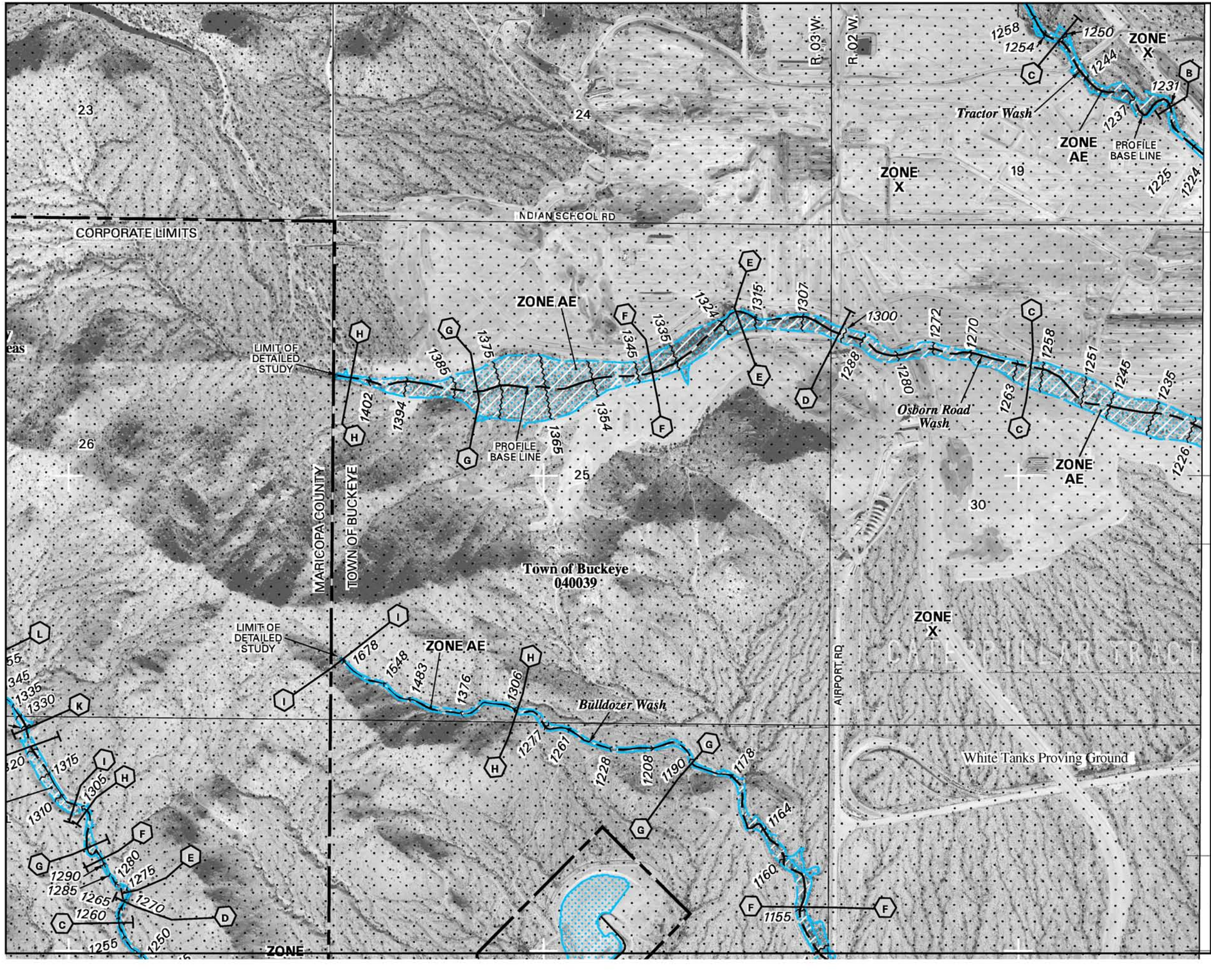
Date
07.20.2007

Project Number
306020

Sheet Number
Site Plan
AS1.0

APPENDIX D

FEMA FLOOD INSURANCE RATE MAPS



MAP SCALE 1" = 1000'

0 1000 2000 FEET

0 300 600 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 2035H

FIRM

FLOOD INSURANCE RATE MAP

MARICOPA COUNTY, ARIZONA

AND INCORPORATED AREAS

PANEL 2035 OF 4350

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BUCKEYE, TOWN OF	040039	2035	H
MARICOPA COUNTY	040037	2035	H

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER

04013C2035H

MAP REVISED

SEPTEMBER 30, 2005

Federal Emergency Management Agency

JOINS PANEL 1590

MAP SCALE 1" = 1000'
0 1000 2000 FEET
0 300 600 METERS

ZONE X
ZONE AE
PROFILE BASE LINE
1% ANNUAL CHANCE FLOOD DISCHARGE CONTAINED IN CULVERT
Tuthill Dike Wash
Town of Buckeye 040039
Beardsley Canal
191st Avenue Wash
Jackrabbit Trail Wash
TOWN OF BUCKEYE
MARICOPA COUNTY
Maricopa County Unincorporated Areas 040037
INDIAN SCHOOL RD
AMELIA AVE
CLARENDON AVE
WHITTON AVE
OSBORN RD
ELM DR
EARLL DR
FLOWER ST
THOMAS RD
VERDE LN
WINDSOR AVE
VIRGINIA AVE
LEWIS AVE
CLARENDON AVE
BRINDLEY AVE
INDIANOLA AVE
LACONIA DR.
MANSFIELD DR
KATIE LN
TUTHILL RD
JACKRABBIT TRL
193RD AVE
189TH AVE
197TH AVE
195TH AVE
196TH LN
192ND AVE
190TH DR
188TH AVE
198TH AVE
DV0113
DV0548
DV0549
DV0550
DV0551
19
20
21
28
29
30

NFIP NATIONAL FLOOD INSURANCE PROGRAM

PANEL 2055G

FIRM
FLOOD INSURANCE RATE MAP
MARICOPA COUNTY, ARIZONA
AND INCORPORATED AREAS

PANEL 2055 OF 4350

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BUCKEYE, TOWN OF	040039	2055	G
GOODYEAR, CITY OF	040046	2055	G
MARICOPA COUNTY	040037	2055	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
04013C2055G
MAP REVISED
SEPTEMBER 30, 2005

Federal Emergency Management Agency