

# Environmental Assessment

For

## Five Wildlife Guzzlers

Environmental Assessment

Number CA-670-2007-97

Bureau of Land Management  
California State Office  
California Desert District  
El Centro Field Office

March 2008

**El Centro Field Office, California Desert District, Bureau of Land Management**

**PROPOSED ACTION TITLE/ TYPE:** Five Wildlife Guzzlers to be built in Imperial County to support the large wildlife in that area.

**APPLICANT / PROPONENT:** California Department of Fish and Game and Desert Wildlife Unlimited.

**LOCATION OF PROPOSED ACTION:**

E.T. Tank	T 13S R 20E Sec 5 SBM
Broken Arm Tank	T 13S R 20E Sec 24 SBM
Dietz Tank	T 10S R 18E Sec 24 SBM
B.P. Tank	T 12S R 20E Sec 7 SBM
Vinegar Tank	T 12S R 20E Sec 2 SBM

**NEED FOR THE PROPOSED ACTION:**

**Background:**

Like many other species of desert wildlife, mule deer are attracted to water during drier, hotter periods of the year (Hervert and Krausman 1986, Elder 1956). Research indicates that water benefits animals in several ways during these times. Water helps animals maintain a more stable body temperature through evaporative cooling, assists in maintaining appropriate electrolyte balance for metabolism, and allows more efficient digestion of food.

**Purpose and Need:**

The purpose of the proposed action is to provide permanent, reliable water sources to deer and other wildlife at five locations in eastern Imperial County. Development of these water sources would help satisfy the objectives of the California Department of Fish and Game (CDFG) D12 Deer Herd Management Plan (1995), specifically Prescription D 3 of the Habitat Element which prescribes the installation of permanent water sources.

Completion of the proposed project (with associated burro fencing as needed) would have positive affects upon such limiting factors as:

- Limited available water,
- Competition with burros for water and forage,
- Reduced access to Coachella Canal water,
- Reduced access to foraging habitat,

- Reduced access to Colorado River water caused by invasive weeds (Arundo and salt cedar),
- Reduced access to Colorado River water resulting from upstream diversions (LCR MSCP),
- Global environmental change (demonstrated increases in temperature and decrease in precipitation)

The need for the water development is:

1. To provide additional permanent and dependable water sources for deer and other wildlife as provided for in Chapters 2 and 6 of the Northern and Eastern Colorado Desert Coordinated Management Plan (NECO).
2. To fulfill the statutory requirement of Fish and Game Code Section 1801 which states that it is “the policy of the state to encourage the preservation, conservation and maintenance of wildlife resources under the jurisdiction and influence of the state”. This policy shall include the following objectives:
  - (a) To maintain sufficient populations of all species of wildlife and the habitat necessary to achieve the objectives stated in subsections (b), (c) and (d).
  - (b) To provide for the beneficial use and enjoyment of wildlife by all citizens of the state.
  - (c) To perpetuate all species of wildlife for their intrinsic and ecological values, as well as for their direct benefits to all persons.
  - (d) To provide for aesthetic, educational, and nonappropriative uses of the various wildlife species.
  - (e) To maintain diversified recreational uses of wildlife, including the sport of hunting, as proper uses of certain species of wildlife, subject to regulations consistent with maintenance of healthy, viable wildlife resources, the public safety, and a quality outdoor experience.
  - (f) To provide for economic contributions to the citizens of the state, through the recognition that wildlife is a renewable resource of the land by which economic return can accrue to the citizens of the state, individually and collectively, through regulated management. Such management shall be consistent with the maintenance of healthy and thriving wildlife resources and the public ownership status of the wildlife resources.”
3. To mitigate the historical effects of habitat fragmentation by highways, canals, mining, past and present military use, and railways (Epps *et al.* 2005).

#### **LAND USE PLAN CONFORMANCE:**

The proposed action and alternatives are in conformance with the following approved land use plans, as required by 43 CFR 1610.5.

California Desert Conservation Area Plan of 1980 (CDCA Plan), as amended.

*Objective #1* of the Wildlife Element of the CDCA Plan is to “Avoid, mitigate or compensate for impacts of conflicting uses on wildlife populations and habitats and to

promote wildlife populations through habitat enhancement projects so that balanced ecosystems are maintained and wildlife abundance provides for human enjoyment.”

*Objective #2* of the Wildlife Element of the CDCA Plan, in part, is to “Develop and implement detailed plans to provide special management for: “b) areas with habitat which is sensitive to conflicting uses...”

Northern and Eastern Colorado Desert Coordinated Management Plan and Final Environmental Impact Statement, 2002. Chapter 2, Section 2.3.2, pages 2-50 and 2-51.

### **Desert Mule Deer Management--Goals and Objectives**

Desert mule deer is a native species, but not a special status species. Deer are included in this section primarily because they are managed as a game species and because artificial waters are proposed to support their population. Deer would potentially benefit from prescriptions related to protecting and enhancing habitat for both bighorn sheep and other special status animal and plant species. Nevertheless, management of mule deer is not dependent on designation of DWMA's or WHMA's.

The objective of this effort is to:

a. provide for the aesthetic, educational, and recreational uses of desert mule deer, to be accomplished by maintaining genetic variation in, and viability of, individual demes and by improving or increasing usable habitat and by augmenting populations.

### **Desert Mule Deer Strategy**

The desert mule deer populations within the Northern and Eastern Colorado Desert planning area would be managed as two populations identified by their current CDFG hunting zone designation: D-12 and D-17. Desert mule deer would continue to be conserved as a native species and would continue to be managed as a game species. CDFG is currently rewriting the deer conservation and management plan for both of these herds in a document known as the Deer Management Plan for Deer Assessment Unit 11. When completed the CDFG plan will contain considerably more detail and site-specific proposals. While deer is a native species found in Joshua Tree National Park (JTNP) and Chocolate Mountains Serial Gunnery Range (CMAGR), hunting is not allowed on those lands. In addition, in JTNP there would be no game management consideration for deer, including artificial waters, but there is in CMAGR in support of hunting that occurs outside CMAGR. Therefore, the bulk of this strategy will be limited to BLM and CMAGR lands.

### **Decisions and Policy Common to all Alternatives**

1. Manage deer in deer habitat throughout its range as currently delineated in the state's D-12 Deer Action Unit and manage harvesting through hunting. CDFG would provide regulations, permitting systems, law enforcement, and other action to support a hunting program where sustainable and consistent with metapopulation management goals.

2. CDFG would continue to construct, improve, and maintain existing natural and artificial water sources and exclosures around them where required and coordinate such work through other agencies and volunteer groups according to CDFG standards and Memoranda of Understanding (MOUs) with BLM and CMAGR.
3. Artificial waters proposed for construction would be considered as a grouped proposal as noted for waters proposed for bighorn sheep (see section 2.3) and addressed in a NEPA review on a yearly basis for administrative efficiency. A monitoring summary (population trends, and effects of waters) would be included to help support the annual proposal and the full strategic number and pattern for the metapopulation as outlined in the Plan. Since about half of the proposed artificial waters for bighorn sheep and desert mule deer are mutually beneficial, they would also be considered simultaneously. In this plan new artificial waters are proposed only for the Sonoran Desert Bighorn Sheep Metapopulation. Proposals for the Southern Mojave Desert Bighorn Sheep Metapopulation, including JTNP, would be considered at a later date.

**Objective A. Provide for the aesthetic, educational, and recreational uses of desert mule deer.**

**Action:** New water developments would be constructed to expand usable habitat for desert mule deer. Map 2-19 Appendix A shows 101 prospective areas for the new water developments in the Sonoran WHMA as identified by CDFG with the assistance of bighorn conservation groups. Of the 101 sites, 53 are common to both deer and bighorn sheep. Design, construction, and maintenance information is provided in Appendix M. Proposed sites have been generally mapped. Nine sites are shown on Map 2-19 to be in wilderness areas, but only two of those nine are authorized at this time and are arrayed by wilderness area as shown in Table M-1 Appendix M. Many more are located near the boundaries of wilderness areas. This location pattern was developed to best meet the objective with the minimum necessary inclusion in wilderness areas. The remaining seven waters in wilderness areas not authorized at this time may be authorized at a later time without further amendment but must be supported with additional biological justification and site-specific NEPA analysis.

NECO CMP/FEIS, July 2002 Appendix B, Standards and Guidelines, Pages B-4 – B-6

**Resource Advisory Council Direction**

At a minimum, State or regional guidelines must address the following:

6. Maintain, restore, or enhance water quality to meet management objectives (e.g., meeting wildlife needs);
9. Maintain or promote the physical and biological conditions to sustain native populations and communities;

## PROJECT ALTERNATIVES

### **Alternative A: Proposed Action**

The CDFG proposes to construct, operate, and maintain five Desert Wildlife Unlimited (DWU) style water sources (Lesicka and Hervert, 1995) to be named ET, Broken Arm, Dietz, BP, and Vinegar Tanks (see Appendix B for a schematic of the proposed guzzlers). The proposed water developments would consist of a small concrete dam, a metal pipeline, a buried 10,000 gallon storage tank, and a 2,500 gallon wildlife accessible subterranean drinker. The total area of permanent surface disturbance for all five construction sites would be 10,280 square feet or approximately ¼ acre. The permanent disturbance at each location would be slightly different based upon unique environmental conditions at each site. Unique to the DWU guzzler system are a number of factors that contribute to the efficiency and reduction of required maintenance. The design simplicity, lack of mechanical parts, and the ability to collect and store large amounts of water from small rain events has reduced costly repairs and/or replacements experienced by different guzzler designs. The number of inspections, monitoring visits and water hauling trips is also minimized. Additional attributes include low visual impact as the system is completely buried except for the drinker and small dam (and occasionally short sections of pipe which are exposed at ground level), increased availability of water for multiple species use, and the drinker is safe for desert tortoises.

#### 1. Site Excavation

A trench would be excavated and backfill materials would be placed to the side of the trench adjacent to the wash. The tank and drinker would be placed in the trench below the dam area but outside the wash and the excavated rock and soil would be replaced and smoothed back to the surrounding gradient, with the installation buried as described below.

The installation site would be excavated for the burial of a 10,000 gallon fiberglass tank and a 2,500 gallon drinker. Both would be completely buried, except for a 1.5 inch diameter screened U-vent pipe on the storage tank, as well as the drinker lip, opening and concrete overflow apron which would be exposed at ground level. The tank would be covered to a depth of two feet while the drinker top would be buried to ground level. All excavated materials from the cavity formed for the installation of the tank and drinker would be placed adjacent to the excavation. The tank would be placed at the rear of the cavity, which would be excavated to a depth low enough to bury the tank two feet below the surface. The drinker would be set up to 10 feet away at or just slightly below the level of the tank. Excavated rock and soil would be replaced, smoothed and contoured to best reflect the surrounding surface contours so that the buried tank and drinker would become part of the landscape.

Individual washes would be partially dammed depending on the site. Construction of this dam would require mixing of cement. The construction material storage site would be located approximately 25 feet away from the wash, on flat ground adjacent to the wash area. A screened intake in the dam face would provide water to a pipe which would then deliver it to both storage tank and drinker. All excess cement would be cleaned up and removed from the site.

## 2. Storage Tank and Drinker

The 10,000 gallon storage tank would be a 30-foot long x 8-foot diameter fiberglass cylinder. The drinker would be comprised of a 2,500-gallon, 16 foot long by 4 foot wide by 8 foot deep fiberglass tank with a ramp. The drinker would be buried underground, adjacent to the tank, and the two would be connected by a 2 inch flexible schedule 40 PVC jacuzzi pipe to allow for naturally occurring soil movement such as settling or earthquakes. Only the walk-in drinker opening would be exposed. The concrete overflow apron is at the entrance of the drinker opening and would be the width of the drinker, 4 feet wide, extending 6 to 8 feet to the front. The entrance to the drinker would be a ramp with steps so that animals having access to the water can escape easily. Steps would descend into the drinker at 1 foot intervals and be 2.5 feet wide. The remaining 0.75 foot on each side of the steps would be roughed, and allow for small animal ingress and egress. The concrete steps would be constructed on-site.

## 3. Dam

Runoff from seasonal rainfall would be detained behind the short dam and flow through a buried 6-inch ABS pipe. The exposed intake at the dam would be covered with wire mesh to prevent entry of debris. Water would be gravity fed through the pipe to the tank and drinker. After the tank and the drinker are filled, excess runoff would flow out of the drinker or over the dam and return to the wash.

The dam would be constructed of reinforced concrete and faced with native stone collected at the site so as to blend into the surrounding landscape. The dam would partially block water flow in the wash and be no more than 3 feet tall from the bottom of the wash. Up to 2 cubic yards of sand would be removed from the wash for mixing concrete. A mobile water tank would be utilized to haul all water for construction purposes and would be towed to the site by vehicle. Concrete would be mixed using a gasoline engine cement mixer and conveyed to the dam and drinker site by wheelbarrow. Approximately 20 gallons of concrete rinse water would be generated and disposed of onsite. Natural forces are expected to fill in the upstream side of the dam with wash materials and replace those removed for construction and for mixing concrete.

## 4. Burro Fencing

After installation of the drinkers, those sites which show sign of consistent use by burros would have exclusion fences added. These fences would consist of 1 1/2 inch diameter steel pipe lashed with wire to braced tee posts. (See Figure 1 photo)



Figure 1: Wildlife Guzzler with burro fencing

#### 5. Vehicles, Construction Equipment and Access

Site access would be along existing routes that have been designated as open routes under the NECO plan. There would be no road construction or grading associated with this project.

Vehicles would be utilized to carry work tools (shovels, picks, rakes) as well as materials, tow one 1,000 water tank, one 10,000 gallon fiberglass tank and one 2,500 gallon drinker (both on trailers), and one portable gas-powered cement mixer.

Excavation equipment would consist of a Case 680 rubber-tired backhoe and a model 270 John Deere flat-tracked excavator (or equivalents). A trailer-mounted 1,000 gallon water tank (gravity-fed or with a gasoline-powered motorized pump if necessary) would be used for the initial charging of the 2,500 gallon drinker. An additional 300 gallons would be used for mixing concrete. Access to all sites would be along designated routes of travel. (See Figure 2)

#### 6. Post Construction Activities

The project areas would be flagged prior to construction activities and flagging would be removed upon project completion. Upon completion of the project, areas disturbed by the project would be restored to as natural condition as possible and re-vegetated with any native plants that were removed during construction. All disturbed soil surfaces would be contoured and raked to match the surrounding terrain. Any rocks that would be removed would be scattered over the disturbed area. Upon completion of construction activities disturbed areas around the

dam, piping, drinker and storage tank would be re-contoured and/or raked to match the surrounding terrain.

## 7. Personnel

Approximately 20 people would be at each work area for a maximum of five days for the installation. Some people may camp near the sites. All personnel would be briefed daily on site stewardship and safety. All trash created on site would be properly disposed in a raven-proof container and removed upon completion of the project. Supplies, tools and materials would be stored, when not in use, at this location and a first-aid/safety area would be established.

## 8. Monitoring

CDFG and/or its agents would drive to the sites to monitor the new artificial water sources as needed for water level and quality. Other monitoring would consist of pellet transects, photographic data, and guzzler operation (water levels, inspection of facility). CDFG/agents would discuss and/or provide to BLM an annual anecdotal summary of observations regarding burrows, scat, or remains of desert tortoises and observations of corvid species that were made near or in the mule deer guzzlers during construction, routine maintenance and periodic visits. If impacts to desert tortoises are evident from the mule deer guzzlers, then additional monitoring of the guzzler sites would be discussed between CDFG/agents and BLM.

## 9. Repair and Refill

The anticipated lifespan of the tank (when buried underground, protected from UV light) is greater than 50 years. Other components of the system (i.e. concrete dam, concrete steps, and ABS pipe) may deteriorate or require repair due to weathering or infrequent environmental events such as earthquakes or severe floods.

Refill activities are anticipated when storm events do not provide sufficient water to the system. When the system is full, the water would be expected to last for approximately two and a half years without needing any natural recharge or refill. CDFG or its agents would fill the guzzlers on an as needed basis. Refill would involve a vehicle with water tank or trailer to fill the guzzler tank.

## 10. Area Description

This project would occur in the Colorado Desert subsection of the Sonoran Desert. The climate is that of the low desert with very hot summers and warm winters. Rainfall averages about 3 inches per year with the bulk occurring in the late summer and winter. Vegetation here is best characterized by Sonoran creosote bush scrub, but many areas are cut by desert washes inhabited by microphyll woodlands. The soils range from very coarse sand and gravel in the washes to rock and desert pavement in the upland areas. Common wildlife species in this area include mule deer, coyotes, bobcats, ringtail, wild burros, and a wide variety of reptiles, birds and insects. The federally threatened desert tortoise is known to inhabit this area. No federally or state listed plants are known from the area.

**E.T. Tank:** The project site is located next to a small wooded wash which drains desert pavement adjacent to the foothills of Black Mountain.

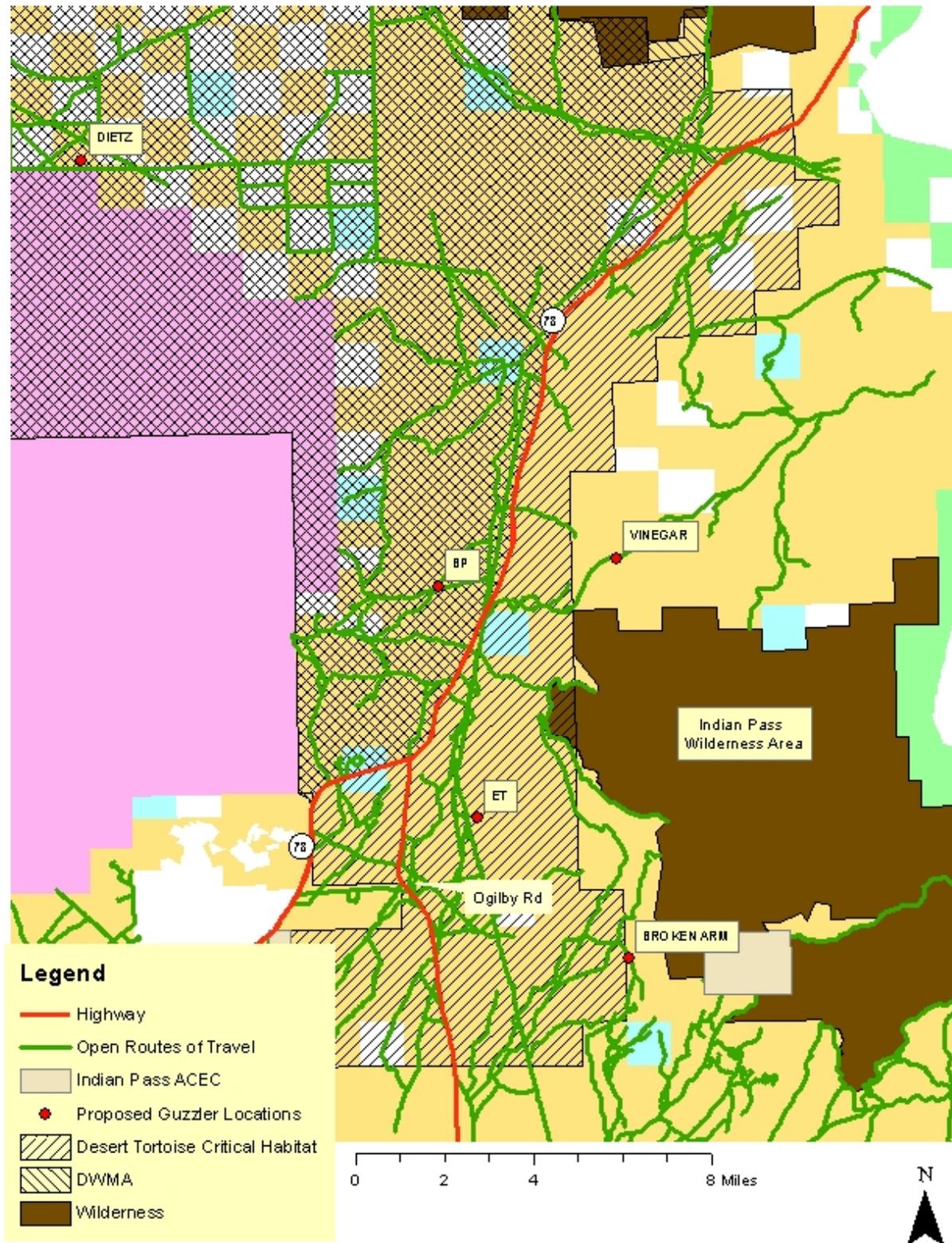
**Broken Arm Tank:** The project site is located next to a small wash which drains desert pavement adjacent to the foothills of Black Mountain. The area is surrounded by desert pavement and is dominated by creosote bush, burro bush and some ironwood.

**Dietz Tank:** The project site is located on the southwest side of Milpitas Wash. The area in and around this wash is best characterized as microphyll woodland dominated by ironwood. Catclaw, palo verde, and smoke tree occur as subdominants. The upland areas are dominated by creosote bush, ocotillo, cacti, and brittlebush.

**B.P. Tank:** The project site is west of Highway 78 next to a wash with coarse sandy and gravelly substrate. The area in and around this wash is best characterized as microphyll woodland, dominated by ironwood, catclaw, and palo verde. The uplands outside the wash are dominated by creosote bush, ocotillo, cacti, and brittlebush. The work area is adjacent to an authorized OHV route that is heavily traveled. There are existing off road vehicle impacts to the work area.

**Vinegar Tank:** The project site is east of Highway 78 near Vinagre Wash. The Vinagre Wash area is a large drainage occupied by extensive microphyll woodlands. Construction would take place along a small peripheral wash adjacent to the main drainage. The work area is located on desert pavement with evidence of OHV disturbance.

Figure 2. Location of the 5 Proposed Wildlife Water Developments



## **Alternative B: No Action**

The wildlife water developments would not be built.

### **AFFECTED ENVIRONMENT:**

#### **Air Quality:**

The Imperial County Air Quality Control District has air quality jurisdiction over the project area and has developed guidelines for dust control suppression during construction activities. Air quality throughout the project area is generally good. At times, the area does not meet air quality standards due to locally generated and/or wind transported pollutants.

#### **ACEC:**

The BP and Deitz guzzlers are located within the Chuckwalla Bench Desert Wildlife Management Area (DWMA). This (DWMA) was established as an ACEC under the Northern and Eastern Colorado Desert Coordinated Management Plan and Final Environmental Impact Statement in order to protect the desert tortoise.

#### **Cultural Resources:**

A cultural resources records and literature search of documents and maps on file at the BLM El Centro Field Office (ECFO) was conducted by the ECFO Archaeologist in August 2006. Current site and project information available in the CHRIS Geographical Information System inventory was also examined for known and recorded sites and surveyed areas located within the vicinity of the area of potential effect (APE). An archaeological pedestrian survey was conducted by the ECFO Archaeologist for each of the five proposed project site areas on August 13, 2006. No cultural resources were identified within the APE; however one prehistoric resource, a lithic reduction site, was identified outside of the boundaries of the project area for the proposed Vinegar guzzler.

#### **Native American Religious Concerns:**

The Native American Heritage Commission was requested to perform a record search of its Sacred Lands File for the proposed project areas. The Commission's review revealed no sacred or traditional cultural resources within the proposed project area. In addition, the BLM has invited Native American tribes with traditional ties to the project areas into consultation and requested their assistance in identifying any issues or concerns regarding the construction of the wildlife guzzlers.

#### **Environmental Justice:**

This project would not affect environmental justice issues; therefore this element will not be considered further.

#### **Prime & Unique Farmlands:**

There are no prime and unique farmlands in the project area; therefore this element will not be considered further.

**Floodplains:**

While there are numerous washes within the project area that are prone to flash flooding, there are no floodplains near the project areas. The guzzlers are designed to capture surface flow from small peripheral washes during rain events. Excess water would continue to flow downstream. The natural flooding of major wash systems would not be interrupted, therefore this element will not be considered further.

**Botany:**

Vegetation in the project area reflects the arid conditions, limited rainfall and generally poor soils of the Sonoran Desert. The project area is a mixture of microphyll woodland areas within the washes and creosote scrub/desert pavement between the washes. Dominant species found within the microphyll woodland areas include blue palo verde (*Cercidium floridum*), ironwood (*Olneya tesota*), and smoke tree (*Psoralea arguta*). Dominant species found within the creosote scrub areas include creosote bush (*Larrea tridentata*) and brittle bush (*Encelia farinosa*).

Microphyll woodland habitats in the project area tend to be fairly tall in height, with trees dispersed and spaced fairly far apart. Many of the washes within this region are inhabited by microphyll woodlands which are of special importance to wildlife and yield a high diversity. Microphyll woodlands are defined as subtropical leguminous forest. This habitat is naturally fragmented due to the xeric nature of the desert and the natural drainage patterns. These woodlands occur in areas subject to increased moisture due to the presence of washes, shallow water tables, or other unique hydrologic features. This habitat provides shelter and forage for all types of desert wildlife.

Microphyll woodlands are an extremely important habitat feature to wintering, breeding and transient migratory birds, as well as all other wildlife in the Sonoran desert. BLM is responsible for management of over 90 percent of the microphyll woodlands in the U.S.

Creosote bush scrub habitats in the project area, on the other hand, tend to be low level vegetation, spaced evenly apart, with other small shrubs dispersed throughout. Usually, in this type of habitat, more dense vegetation can be found near washes.

Special status plants that occur in or near the project area include fairy duster (*Calliandra eriophylla*), Munz's cholla (*Opuntia munzii*) and saguaro (*Carnegiea gigantea*). There is one fairy duster located near the proposed Broken Arm Tank. No Munz cholla or Saguaro were detected during field surveys, but may exist nearby.

**Invasive/Non-native Species:**

Invasive/non-native species in this area include Sahara mustard (*Brassica tournefortii*), Mediterranean grass (*Schismus sp.*) and tamarisk (*Tamarix sp.*). Sahara mustard and Mediterranean grass are present throughout the project areas. These species are annuals that die each year and their seeds lie dormant for long periods of time in the soil. During wet periods

these species erupt and cover much of this portion of the desert. These annuals pose a threat to the native community by increasing risk of wildfire by providing light transmission fuels. These species can also compete with native plants. Tamarisk is usually found in association with moisture, either in washes or riparian areas. It can pose a major threat to native plant life by depleting subsurface water and increasing soil salinity. With enough water available, tamarisk would grow in dense monoculture stands and provide little benefit to most wildlife.

**Threatened or Endangered Species:**

Mojave populations of the desert tortoise (*Gopherus agassizii*) were listed as threatened on April 2, 1990, and the U. S. Fish and Wildlife Service (USFWS) designated critical habitat for the species on February 8, 1994. Three of the guzzlers are located within designated critical habitat for the desert tortoise, two of which are within the Chuckwalla Bench DWMA. A qualified biologist surveyed the proposed project sites. Although no tortoises or tortoise sign were observed, the primary constituent elements of critical habitat, (i.e. cover shrubs, forage, and adequate burrowing substrate) were present at or near the project locations for all five guzzlers.

Results of the USFWS rangewide monitoring of desert tortoises showed a density of 6.38 tortoises/km<sup>2</sup> (95% CI = 4.60-8.86) in 2005. Most of their sampling effort was farther north within this recovery area where there is higher quality habitat for desert tortoises.

**Sensitive Wildlife species identified in the project area:**

Table 1 compiles information special status species of wildlife known from the general region of the project sites.

Table 1. Sensitive wildlife in the vicinity of the five guzzler project sites.

Species	Status	Presence at project location
Prairie Falcon ( <i>Falco mexicanus</i> )	SSC	Species was not observed, but is likely present. Foraging habitat.
Le Conte's thrasher ( <i>Toxostoma leconteii</i> )	SSC, BLM Sensitive	Species was not observed, habitat is present but not optimal.
Gila Woodpecker ( <i>Melanerpes uropygialis</i> )	CE	Species was not observed, but is likely present in microphyll woodland
Chuckwalla ( <i>Sauromalus obesus</i> )	SSC	Species was not observed, there are no steep rocky slopes in the affected area.
Rosy Boa ( <i>Lichanura trivirgata</i> )	SSC	The project site is within the species range, but habitat is not optimal.
Colorado Desert Fringe-toed Lizard ( <i>Uma notata</i> )	SSC, BLM Sensitive	The project site is within the species range, but habitat is not optimal, there are no windblown sands in the affected area.

Desert Tortoise ( <i>Gopherus agassizii</i> )	FT	Species was not observed, but is likely present. On or near the sites.
Pallid Bat ( <i>Antrozous pallidus</i> )	SSC, BLM Sensitive	The proposed project is within the range of this species. Suitable seasonal foraging and roosting habitat are present near the project area. No known hibernacula or maternity roosts are present in the area.
Townsend's Western Big-eared Bat ( <i>Plecotus townsendii</i> )	SSC, BLM Sensitive	The proposed project is within the range of this species. Suitable seasonal foraging and roosting habitat are present near the project area. No known hibernacula or maternity roosts are present in the area.
Pocketed Free-tailed Bat ( <i>Tadarida femorosaccus</i> )	SSC	The proposed project is within the range of these species. Suitable seasonal foraging and roosting habitat are present near the project area. No known hibernacula or maternity roosts are present in the area.
California Leaf-nosed bat ( <i>Macrotus californicus</i> )	SSC, BLM Sensitive	There are known populations in this area. Suitable seasonal foraging and roosting habitat are present near the project area.
Fringed Myotis ( <i>Myotis thysanodes</i> )	BLM Sensitive	The proposed project is within the range of this species. Suitable seasonal foraging and roosting habitat are present near the project area. No known hibernacula or maternity roosts are present in the area.
Desert Bighorn Sheep ( <i>Ovis canadensis</i> )	BLM Sensitive	While no bighorn sheep were observed, they are known to inhabit this area.

**Wildlife including Migratory Birds:**

The project area is inhabited by an abundance of wildlife species, including but not limited to mule deer, bobcat, black-tailed jackrabbit, red-tailed hawk, Gambel's quail, desert iguana, and zebra-tailed lizard. This region typically supports a higher diversity of wildlife than many other parts of the Colorado Desert. The hydrology in this area promotes development of microphyll woodlands within the extensive wash systems throughout the region. These woodlands are the major reason for the abundance and diversity of wildlife in this area. They provide cover, forage and nesting areas for multitudes of species.

This area is particularly important to migratory birds. Many species of birds migrate through this area and utilize these woodlands as stopover habitat. This is especially important for these species crossing hundreds of miles of harsh desert. The abundant palo verde, ironwood and catclaw in the washes provide excellent cover and foraging habitat for neotropical migrants. In 2001 microphyll woodlands were designated as an important bird area by the National Audubon Society.

**Wild Horses and Burros:**

The ET, Vinegar and Broken Arm sites lie within the Chocolate /Mule Mountains Herd Management Area (HMA) as delineated in the 2002 NECO Plan. Dietz and BP tanks are outside of this HMA. NECO estimated a burro population of 26 animals within the HMA's 386,091 acres. This exceeds NECO's recommended Appropriate Management Level (AML) of 22. Although this would appear to be an extremely small population density, the distribution is, in all likelihood, clumped within close proximity of permanent water sources. As a result, burro impacts upon vegetation and other wildlife competing for water could be locally significant. BLM staff responsible for herd management activities within the region have reviewed the sites selected for this project and have recommended that fencing be undertaken at the Vinagre Wash (1) and Black Mountain (2) sites, but until consistent burro use has been demonstrated, none were recommended for the proposed drinkers west of Highway 78. Within the nearby Picacho Herd Management Area burros have severely impacted already sparse native vegetation. Wild burros are abundant in the project area. These animals depend on surface water sources for survival and will only range in areas with permanent water sources.

**Wastes (hazardous/solids):**

There are no known hazardous wastes at the five proposed guzzler locations, and no hazardous waste would be generated by construction of water developments, therefore this element will not be considered further.

**Water Quality:**

There are no waterways, natural or manmade, within the project area. This region receives an average of less than 3 inches of rainfall per year. What rainfall that does occur runs off the ground and into the washes very quickly resulting in flash flooding. These floods naturally carry large quantities of soil and rock.

**Wetlands/Riparian Zones:**

There are no wetlands or riparian zones in the project area, therefore this element will not be considered further.

**Wild & Scenic Rivers:**

There are no rivers in the project area, therefore this element will not be considered further.

**Wilderness:**

The proposed Broken Arm and Vinegar tanks are located about one mile from the edge of the Indian Pass Wilderness. None of the project locations are located within wilderness areas therefore this element will not be considered further.

**Recreation:**

The recreation in this area consists of dispersed uses such as hunting, hiking, 4x4 trail riding, camping, and wildlife viewing.

**Visual Resource Management:**

Lands in the project area are managed according the California Desert Conservation Area Plan as Multiple-Use Class L and Class M which are generally consistent with Visual Resource Management (VRM) Classes II and III respectively. Wildlife guzzlers Vinegar and Broken Arm both fall into Multiple-Use Class L, which according to VRM Class II, may be seen, but should not attract attention of the casual observer. The level of change to the landscape should be low. Changes should repeat the basic elements found in the natural features of the landscape in form, line, color and texture. Wildlife guzzlers BP, ET and Dietz all fall within Multiple-Use Class M lands and may attract attention, but should not dominate the view of the casual observer. The level of change to the immediate area will be noticeable, but the characteristic landscape will remain unchanged.

**ENVIRONMENTAL IMPACTS**

The following table summarizes potential impacts to various elements of the human environment, including the “critical elements” (\*) listed in BLM Manual H-1790-1, Appendix 5, as amended. BLM considers critical elements of the human environment to fall into 3 categories.

1. Uses of or resources that are not affected by the proposed action (NA);
2. Uses of or resources that are present and that may or may not be affected by the proposed action (PA);
3. Uses or resources not present and not affected by the proposed action (NP).

**Table 1. Table of Critical Elements.**

<b>Critical Element</b>	<b>Not Present</b>	<b>Not Affected</b>	<b>Possibly Affected</b>
Air Quality*		<b>x</b>	
Areas of Environmental Concern *	<b>x</b>		
Cultural Resources*		<b>x</b>	
Native American Religious Concerns*		<b>x</b>	
Environmental Justice		<b>x</b>	
Prime or Unique Farmlands*	<b>x</b>		
Floodplains*		<b>x</b>	
Botany			<b>x</b>
Invasive, non-native species			<b>x</b>
Threatened or Endangered Species*			<b>x</b>
Wildlife including Migratory Birds			<b>x</b>
Wild Horses and Burros			<b>x</b>
Waste, Hazardous or Solid*	<b>x</b>		
Water Quality (Surface and Ground)*		<b>x</b>	
Wetlands and Riparian Zones*			<b>x</b>
Wild and Scenic Rivers*	<b>x</b>		
Wilderness*	<b>x</b>		
Recreation			<b>x</b>
Visual Resource Management			<b>x</b>

***Environmental Impacts***

**Air Quality:**

There would be negligible air quality disturbance by dust and vehicle emissions during initial construction of the proposed action.

**Cultural Resources:**

No impacts to cultural resources are foreseen as a consequence of this proposed action. Pursuant to the State Protocol Agreement Between The California State Director of The Bureau of Land Management And The California State Historic Preservation Officer (2004) (Section V.A and V.B), and in accordance with 36 CFR Part 800, the BLM has reviewed this undertaking, has made a reasonable effort to identify historic properties that may be located within the area of

potential effect and has assessed the effect of this undertaking on historic properties. The BLM makes the finding that there would be no historic properties affected by this undertaking.

**Botany:**

In Africa, where there are thousands of herding ungulates, some investigators recorded high levels of vegetation impacts near water sources. This is not so in California. Past studies have addressed foraging questions and have found that sheep (Wehausen and Hansen 1986) and deer (Marshal *et al.* 2004 and 2005a), both exist at low densities, have little impact on vegetation used as browse and forage. Marshal *et al.* (2005b) specifically looked at vegetation near water sources in the Sonoran Desert in California and failed to measure any impact to vegetation by native ungulates attracted to water sources. There could be an increase in consumption of forage by deer as their populations increase in size and distribution with the addition of new guzzlers. Consumption will be greatest nearest the water source. Because these native ungulates, in even greater numbers in the past, have coexisted with the native plant community, effects, if any, on community structure or composition would be sustainable.

The no action alternative would result in no impacts to plant life as animal movement and foraging habits would not be altered.

**Invasive/Nonnative Species:**

The primary impact of guzzlers on invasive species is the spreading of seeds for these species. As animals move to and from the drinkers, seeds for invasive species could be picked up and transported. Sahara mustard and Mediterranean grass are already prevalent throughout the project area. It is not anticipated that construction and maintenance of the guzzlers would result in an appreciable increase in these species. There is currently no tamarisk in the vicinity of the proposed guzzlers. It is possible that if water is spilled from the drinkers or if the tank leaks there could be enough water to support tamarisk to grow. However, during routine checks of the guzzlers, any tamarisk found would be removed thus there would be no additional infestations resulting from this development.

**Threatened or Endangered Species:**

The installation of the guzzlers would directly impact about 0.12 acres of desert tortoise habitat. Construction of the Dietz and BP tanks would be within the Chuckwalla DWMA which is considered Class 1 habitat for tortoise and is also designated critical habitat. The ET tank is located within designated critical habitat but is outside the DWMA. The Broken Arm and Vinegar tanks are both located outside desert tortoise critical habitat.

Construction of the guzzlers would result in temporary disturbance to the sites from construction related activities; noise, dust, etc. Once the guzzlers are in place the sites would be restored to their natural condition. Further impacts to habitat would be limited to wildlife entering and leaving the guzzler locations to drink, and routine visits by CDFG personnel to inspect the guzzler.

Andrew *et al.* (2001) examined 13 guzzlers in this region for signs of drowned tortoises. Her study found no tortoise remains. Hoover (1996) in a similar study of 86 small game drinkers found the remains of 17 tortoises. It is impossible to determine whether the remains were washed in the guzzlers from routine filling or if tortoises fell in and became trapped. Hoover recommended installation of a roughened matt or abraded surface for tortoises to be able to have traction to escape the drinker. Although the proposed large animal drinkers are of a different design than the small game drinkers examined by Hoover, the proposed drinkers would be equipped with a roughened ramp as well as steps to allow tortoises to climb out. Because of the escape ramp and mitigation measures used for construction and maintenance this project is not likely to adversely affect desert tortoises or adversely modify critical habitat.

Ravens and crows can be attracted to unnatural water sources, such as mule deer guzzlers. The common raven is a subsidized predator of the desert tortoise (McIntyre 2004). Raven predation on juvenile tortoises is believed to be one of the most important threats to the desert tortoise (McIntyre 2004). There is a potential for predation by ravens on immature desert tortoises. Therefore, a monitoring program would be implemented by CDFG and/or its agents. The Colorado Desert does not support the high abundances of ravens seen in parts of the Mojave Desert. A study conducted by Fauna West Wildlife Consultants (1989) found low densities of ravens in this region (approximately 2 per 100 transect miles compared to 40 per 100 transect miles in the West Mojave Desert). In 1995 during weekly raven surveys, McKernan saw a range from 14 ravens per month to 0 ravens per month. The average number of ravens per month was 1.1 (SD 0.39). Daily average totals ranged from 0 to 3. Much of this raven activity was centered near roads or at campsites in Glamis. (McKernan 1995)

The no action alternative would result in no disturbance to desert tortoise habitat.

#### **Wildlife including Migratory Birds:**

Some temporary disturbance to wildlife would occur during installation of the guzzlers. After guzzler installation increased movement of wildlife to the immediate area would occur as animals access the water. Species typically seen using these facilities include deer, coyote, bobcat, many types of migratory birds, Gambel's quail and others including the state-listed Gila woodpecker. Amphibians such as red-spotted toads are often found near guzzlers. Insects, particularly honeybees, are abundant near these water sources as well. Some increase in the population of these species is possible if water was previously limiting their numbers. Some small animals and insects could become trapped and drown in the drinker, however construction of an appropriate ramp would minimize this risk. Comparing an artificial water site to a dry site, Cutler and Morrison (1998) found that rodent and reptile populations were affected little, but bird and amphibian abundance and species richness were higher at watered sites.

The drinkers would be especially beneficial to bats and migratory birds. The guzzlers would serve as a permanent water sources for these animals as well as breeding grounds and water resources for forage species (insects). These drinkers would provide excellent resources for stopover habitat for migrating birds. Bats would also benefit from the increased prey abundance and permanent water.

The no action alternative would result in a continued lack of permanent waters in this area which would provide fewer resources for wildlife and would prevent some wildlife from utilizing greater portions of the available habitat. It would also result in fewer stopovers and lower-quality foraging habitat for migratory birds and bats.

**Wild Horses and Burros:**

No wild horses are known from the project area. Water would potentially benefit wild burros by providing them with the means to more efficiently digest food and assist with maintenance of body temperature and salt balance. However, if use of the newly developed water sources by burros negatively affects native wildlife or their habitat, burros would be excluded by fencing. Two will be fenced anyway, correct?

The no action alternative would result in a continued lack of permanent waters in this area which would provide fewer resources for burros and would prevent burros from utilizing this area of the Colorado Desert.

**Wetlands/Riparian Zones:**

The earlier section said that this topic would not be considered further. There are no wetlands or riparian zones in the project area; however these guzzlers would be located within desert washes. This desert wash habitat hosts a relatively lush vegetative environment compared to the surrounding desert lands. Infrequent flooding of these washes during rain events support a greater abundance of trees and shrubs. Initial construction could result in some damage to vegetation in the construction area. The guzzler locations would be adjusted to minimize vegetation damage. Vegetation disturbance would be limited to the minimum amount possible. No removal of trees would be necessary.

The no action alternative would have no impact on wetlands or riparian zones.

**Recreation:**

The recreation in this area consists of dispersed uses such as OHV recreation, hunting, hiking, camping, and wildlife viewing. Construction of the guzzlers would not limit public access or otherwise detract from the recreational opportunities in the area. The guzzlers would provide an important resource for wildlife and could increase the populations of some wildlife, which would create better opportunities for hunters and other wildlife enthusiasts.

The no action alternative would result in a continued lack of permanent waters in this area which would provide fewer resources for wildlife and would prevent wildlife from moving into other areas which could limit the areas in which hunters or wildlife viewers could observe animals.

**Visual Resource Management:**

Very limited visual impacts would occur to the line and texture of the natural landscape due to the proposed action. The project locations are well hidden from view, being in small washes and

obscured by natural topography. Most of each guzzler is located underground and the above ground portion would blend in with the surrounding environment. The project locations would fall within the guidelines for Multiple-Use Class L and Class M. The only visible portion of the drinker is the dam and the opening to the drinker. The concrete dam would be lined with natural rock from the local region so it would blend in with the landscape. Once construction of the drinker is complete, the area would be restored using vegetation and rock and soil from the site to match the natural contours of the area. In the event that burros damage the vegetation or drinkers, fencing may be installed which would be much more visible. The fencing would be disguised to meet the line, color and texture of the surrounding natural landscape and vegetation to reduce the visibility from the highway or routes in the area to the casual observer. How to disguise a fence, given the photo earlier, may take some explanation.

Visual impacts would be slightly greater under the Proposed Action Alternative compared to the No Action Alternative.

### **Mitigation Measures:**

The following terms based on the Biological Opinion for Small Disturbances in Desert Tortoise Habitat (August 22, 1997 1-8-97-F-17) and FWS review shall be applied:

- a. The project proponent shall designate a qualified biologist (QB) who would be responsible for overseeing compliance with protective stipulations for the desert tortoise and for coordination on compliance with the BLM. The QB must be on-site during all project activities. The QB shall have the authority to halt all project activities that are in violation of the stipulations. The QB shall have a copy of all stipulations when work is being conducted on the site. The QB may be a biologist with desert tortoise experience and approved by BLM.
- b. All employees/volunteers of the project proponent who work on-site shall participate in a tortoise education program prior to initiation of field activities. The project proponent is responsible for ensuring that the education program is developed and presented prior to conducting activities. New employees/volunteers shall receive formal, approved training prior to working on-site. The employee education program must be received, reviewed and approved by the BLM Field Office at least 15 days prior to the presentation of the program. The program may consist of a class presented by a qualified biologist (BLM or contracted) or a video. Wallet sized cards or a one page handout with important information for workers to carry are recommended. The program shall cover the following topics at a minimum:
  - \_ Distribution of the desert tortoise,
  - \_ General behavior and ecology of the tortoise,
  - \_ Sensitivity to human activities,
  - \_ Legal protection,
  - \_ Penalties for violations of State or Federal laws,
  - \_ Reporting requirements, and

\_ Project protective mitigation measures.

- c. The area of disturbance shall be confined to the smallest practical area, considering topography, placement of facilities, location of burrows, public health and safety, and other limiting factors. Work area boundaries shall be delineated with flagging or other marking to minimize surface disturbance associated with vehicle straying. Special habitat features, such as burrows, identified by the qualified biologist shall be avoided.

To the extent possible, previously disturbed areas within the project site shall be utilized for the stockpiling of excavated materials, storage of equipment, and location of office trailers and parking of vehicles. The qualified biologist, in consultation with the project proponent shall ensure compliance with this measure. Staging areas for this project shall be surveyed for desert tortoise and their burrows and if present, shall be moved and avoided as appropriately determined by BLM.

- d. Cross-country access shall be the standard for temporary activities. There will be no construction of new roads. To the extent possible, access to the project site shall be restricted to designated "open" routes of travel. A qualified biologist shall select and flag the access route, to avoid burrows and to minimize disturbance of vegetation. All access is to be considered temporary. After the project is completed, the temporary access routes shall be rehabilitated using ripping, raking, and other accepted techniques.

As explicitly stated in the project permit, cross-country vehicle use by employees/volunteers is prohibited during work and nonworking hours. No new permanent road, two-track or otherwise, shall be created from a main road to any of the guzzlers. Driving off route is not permitted for routine inspection of the guzzlers. Subsequent maintenance may require vehicle use and thus will require restoration of temporary impacts.

- e. Desert tortoises shall be allowed to move through a project area and shall not be disturbed under any circumstances. All construction activities shall cease until the desert tortoise has moved through the area. No handling of the desert tortoise is allowed.
- f. The qualified biologist shall maintain a record of all desert tortoises observed during the project monitoring. This information would be provided to the BLM/Service with the annual report from CDFG. This information shall include for each tortoise:
1. The GPS location (narrative and maps) and dates of observations;
  2. General condition and health, including injuries and state of healing and whether animals voided their bladders;
  3. Diagnostic markings (i.e., identification numbers or marked lateral scutes);
  4. Photograph of each observed desert tortoise.
- g. No later than 90 days after completion of construction or termination of activities, the QB shall prepare a report for the BLM. The report shall provide an estimate of the actual

acreage disturbed by various aspects of the operation. This information shall be reported to the Service by BLM with the assigned file number #FWS-IMP-5425 and may be included with the first annual CDFG/agent report/discussion to BLM.

- h. Upon locating a dead or injured tortoise, the project proponent or agent is to notify the BLM Field Office. The BLM must then notify the appropriate field office (Carlsbad) of the USFWS by telephone immediately for care. Written notification must be made within five days of the finding, both to the appropriate USFWS field office and to the USFWS Division of Law Enforcement in Torrance. The information provided must include the date and time of the finding or incident (if known), location of the carcass or injured animal, a photograph, cause of death, if known, and other pertinent information. An injured animal shall be transported to a qualified veterinarian for treatment at the expense of the project proponent. If an injured animal recovers, the appropriate field office of FWS should be contacted for final disposition of the animal.
- i. Except on county maintained roads, vehicle speeds shall not exceed 10 miles per hour through desert tortoise habitat.
- j. Workers shall inspect for tortoises under a vehicle prior to moving it. If a tortoise is present, the worker shall not move the vehicle until the tortoise has moved out from under the vehicle on its own volition. Only after it has moved, may the vehicle be moved.
- k. No dogs shall be allowed at a work site.
- l. All trash and food items shall be promptly contained within closed, raven proof containers. These shall be removed from the project site the same day to reduce the attractiveness of the area to ravens and other tortoise predators.
- m. Project proponents shall stockpile any vegetation grubbed or bladed from the project site. The access road is temporary and not graded. Following completion of the project, the access road and project site (a temporary disturbance) shall be re-contoured to approximate pre-project condition and the stockpiled vegetation randomly spread across the re-contoured area.
- n. A qualified biologist with experience conducting surveys for desert tortoise shall be approved by BLM for this project.

Because of the conservation activities undertaken by the Department of Fish and Game for the desert tortoise (habitat acquisition, education, protection), no compensation payment shall be required. In lieu of fencing, the Department shall ensure that no desert tortoises are harmed through the use of a biological monitor during guzzler installation. The drinker would also be equipped with an approved ramp to allow small wildlife, including desert tortoises, to climb out.

**Residual Impacts:**

After mitigation, less than 1 acre of habitat would remain impacted. It would slowly recover over time; however a portion of it would remain impacted by occasional inspection vehicles. Direct impacts to the desert tortoise would be avoided and indirect impacts would be minimized by the application of provisions of the mitigation measures biological opinion.

**Cumulative Impacts:**

Thirty-seven big game guzzlers have been constructed in eastern Imperial County as of July 2003. These supplement 9 natural springs and 22 tenajas, most of which do not hold water continuously. An additional 44 guzzlers (including the five covered by this EA) are planned for installation in Eastern Imperial County under the terms of NECO (BLM 2002). Cumulatively, these 37 guzzlers have directly impacted about 1 acre of land, most of which is suitable for the desert tortoise. The desert landscape has recovered from the temporary disturbance associated with their construction. If all 81 guzzlers authorized under NECO are installed these would directly impact about 2 acres. Indirectly, these guzzlers would alter the existing distribution and abundance of plants and wildlife throughout the area in ways that are difficult to predict. Areas previously unsuitable for summer use by deer would become occupied during those periods. Improved fawn survival may occur as result of improved water access for does during lactation. This in turn could lead to a larger deer population when water is the limiting factor. Increased browse pressure could occur in areas in close proximity to the guzzlers; however, recent studies have been unable to quantify forage biomass reductions as a result of existing guzzlers (Marshall 2006). At some point free water may cease to be the limiting factor and available forage or thermal cover may prevent increases in the deer population.

Additional cumulative impacts related to guzzler installation could include changes in the insect and plant community pollinated by them. For example, European honeybees often drink from these guzzlers. These bees then pollinate plants in the surrounding area. Potentially those plants pollinated by the bees could increase in relative abundance over the years; however recent research such as that conducted by Rosenstock *et al.* (2004) dispels that notion. The potential effect of displacement of native bees by increased populations of honeybees is unknown.

Other potential effects could include changes in the abundance and distribution of ravens or burros, which are often found in close association with water. Some ravens are known to prey upon juvenile tortoises and a potential for elevation of raven populations from guzzler installation exists because ravens may be drawn to the water. Raven densities are low in this part of Imperial County and the guzzlers will have minimal impact on raven and crow densities in adjacent parts of the desert because water is not recognized as one of the top factors leading to corvid distribution in the desert (Boarman 2002). A study conducted by Fauna West Wildlife Consultants (1989) found low densities of ravens in this region (approximately 2 per 100 transect miles compared to 40 per 100 transect miles in the West Mojave Desert). Most ravens in the area are found near Highway 78 and near Glamis where they can feed on human refuse. The observed low density of ravens in this portion of the desert is also supported by CDFG water source photography data from eastern Riverside and Imperial Counties. Photographs collected from 1995 to 2005 show the presence of ravens in only 19 of 11,187 wildlife photos (N. Andrew,

CDFG, in preparation). Neither is there evidence that raven densities have increased around artificial water sources for wildlife similar to those installed and proposed, nor that the construction of this water source would result in greater raven numbers.

Coyotes and other predators may increase in number near guzzlers and prey on desert tortoises. Such questions about predator densities and distribution relative to water sources have been addressed and answered by researchers, such as Rosenstock *et al.* (1999 and 2004). Coyotes are the most likely predators to be found in this portion of the desert in Imperial County. Rosenstock *et al.* (2004) found that radio collared coyotes were no more likely to be found at water sources than other random points in coyote habitat. This holds true for other wildlife species known to access guzzlers including birds of prey, bobcats, foxes, and ringtails.

The impact of new water sources relative to predation is expected to be minimal.

Burros have been seen using existing water sources including guzzlers and the potential exists for an expansion of their numbers and range due to the extensive guzzler network planned. However, as discussed in Proposed Action section, if more than an occasional burro is detected using any new water source(s) a burro exclusion fence would be installed. It would be the same type of fence as approved in the NECO Plan (BLM 2002) Therefore the guzzlers are not anticipated to affect burro distribution and/or numbers.

The proposed dams associated with the water collection system affect water flow downstream by blocking water passage until the impounded water overflows the barrier. These dams are only designed to impound a couple hundred gallons of water (depending on the size and shape of the wash) before it will overflow and water can continue downstream. It is possible that very small rain events may not generate enough water to overflow the dam; however, the amount of water blocked by such an event would only impact a short distance downstream along the wash. These dams would have a positive benefit to nearby vegetation by impounding water and allowing more water percolation into the soil near the dam. This increased moisture will improve water resources for native vegetation in and around the dam sight.

Cumulative impacts associated with the construction and maintenance of these water sources will have little impact on the abundance and distribution of plants and wildlife in eastern Imperial County.

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Peggy Bartels, USFWS  
Dave Singleton, Native American Heritage Commission

### **Native American Consultation**

To comply with Executive Orders regarding Government-to-Government relations with Native Americans, BLM invited the Native American tribes into consultation with respect to the proposed project through letters sent out in September, 2007. A letter was sent to the chairman of each band or tribe with cultural ties to the project area as well as to staff, and/or individuals who might have an interest in the project. These entities would continue to be contacted and comments requested. The tribal entities contacted are listed below.

Campo Band of Mission Indians  
La Posta Band of Mission Indians  
Manzanita Band of Mission Indians  
Ewiiapaayp Band of Mission Indians  
Kwaaymii Laguna Band of Mission Indians  
Fort Yuma Indian Reservation Quechan Indian Tribe  
Cocopah Indian Tribe  
Torres-Martinez Desert Band of Cahuilla Indians

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**BUREAU OF LAND MANAGEMENT  
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**ENVIRONMENTAL ASSESSMENT (EA) FORM**

CA-670-2007-97

**PROJECT NAME:** Five Wildlife Guzzlers

**TECHNICAL REVIEW:**

(x)	Program	Reviewer	Signature	Date
<input checked="" type="checkbox"/>	Air Quality	ERIN DREYFUSS	<i>[Signature]</i>	11/30/07
<input checked="" type="checkbox"/>	ACEC	Daniel Steward	<i>[Signature]</i>	
<input checked="" type="checkbox"/>	Botanical including T&E Spp.	ERIN DREYFUSS	<i>[Signature]</i>	11/30/07
<input type="checkbox"/>	Communications (Dispatch)			
<input checked="" type="checkbox"/>	Cultural/Paleontology	Carrie Simmons <del>Carrie Simmons</del> (Cultural)	<i>[Signature]</i>	12/5/07
<input type="checkbox"/>	Energy Policy			
<input checked="" type="checkbox"/>	Environmental Justice	Daniel Steward	<i>[Signature]</i>	11/30
<input checked="" type="checkbox"/>	Farmlands (Prime & Unique)	Daniel Steward	<i>[Signature]</i>	11/30
<input type="checkbox"/>	Fire Management			
<input checked="" type="checkbox"/>	Floodplain	Daniel Steward	<i>[Signature]</i>	11/30
<input checked="" type="checkbox"/>	Hazardous Material	Buzz Todd	<i>[Signature]</i>	11/30/07
<input checked="" type="checkbox"/>	Invasive & Non-Native Spp.	ERIN DREYFUSS	<i>[Signature]</i>	11/30/07
<input type="checkbox"/>	Lands/Realty			
<input type="checkbox"/>	Land Law Examiner			
<input type="checkbox"/>	Law Enforcement			
<input type="checkbox"/>	Minerals	Buzz Todd	<i>[Signature]</i>	11/30/07
<input checked="" type="checkbox"/>	Native American Religious Concerns	Carrie Simmons	<i>[Signature]</i>	12/5/07
<input type="checkbox"/>	Operations			
<input type="checkbox"/>	Range Management			
<input type="checkbox"/>	Recreation	Dallas Meeks	<i>[Signature]</i>	12/5/07
<input type="checkbox"/>	Soils			
<input type="checkbox"/>	Surface Protection			
<input checked="" type="checkbox"/>	Visual Resources	John Johnson	<i>[Signature]</i>	12/5/07
<input type="checkbox"/>	Water Rights			
<input checked="" type="checkbox"/>	Water Quality (Surface & Ground)	ERIN DREYFUSS	<i>[Signature]</i>	11/30/07
<input checked="" type="checkbox"/>	Wetlands/Riparian Zones	ERIN DREYFUSS	<i>[Signature]</i>	11/30/07
<input checked="" type="checkbox"/>	Wild & Scenic Rivers	Daniel Steward	<i>[Signature]</i>	12/5/07
<input checked="" type="checkbox"/>	Wilderness	John Johnson	<i>[Signature]</i>	12/5/07
<input checked="" type="checkbox"/>	Wild Horse & Burro	ERIN DREYFUSS	<i>[Signature]</i>	11/30/07
<input checked="" type="checkbox"/>	Wildlife including T&E Spp, Migratory Birds.	Daniel Steward	<i>[Signature]</i>	11/30/07

Prepared by:

*[Signature]*  
Daniel Steward, Resources Branch Chief

Date:

11/30/07

Reviewed by:

*[Signature]*  
Erin Dreyfuss, NEPA Coordinator

Date:

11/30/07