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File No. 039610-0001

DOCKET
07-AFC-1
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May 8, 2008

VIA FEDEX

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 07-AFC-1
1516 Ninth Street, MS-4
Sacramento, California 95814-5512

Re: Victorville 2 Hybrid Power Project: Docket No. 07-AFC-1

Dear Sir/Madam:

Pursuant to California Code of Regulations, title 20, sections 1209, 1209.5, and 1210, enclosed herewith for filing please find a document entitled, "Desert Tortoise Translocation Plan."

Please note that the enclosed submittal was filed today via electronic mail to your attention and to all parties on the CEC's current electronic proof of service list.

Very truly yours,

Paul E. Kihm
Senior Paralegal

Enclosure

cc: CEC 07-AFC-1 Proof of Service List (w/encl. via e-mail)
Michael J. Carroll, Esq. (w/encl.)

VICTORVILLE 2 HYBRID POWER PROJECT

DESERT TORTOISE (Gopherus agassizii) TRANSLOCATION PLAN

AMEC Earth & Environmental
3120 Chicago Avenue, Suite 110
Riverside California 92507

May 2008

VICTORVILLE 2 HYBRID POWER PROJECT
DESERT TORTOISE (Gopherus agassizii) TRANSLOCATION PLAN

Prepared for:

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On behalf of:

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May 2008

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1.0 INTRODUCTION

The Victorville 2 Hybrid Power Project (VV2 or Project) has been proposed by the City of Victorville for private land location in the western portion of California's Mojave Desert (Figure 1). This hybrid electrical power-generation facility includes both a power plant and several parabolic solar collector arrays that will be situated north of the Southern California Logistics Airport and west of the Mojave River (Figure 2). Previously analyzed linear utility features (Appendix 1) will connect to a gas pipeline, electrical transmission line, water distribution system and water treatment facility (AMEC 2007, 2008).

Project construction is scheduled to begin August 1, 2008. Associated activities have the potential to adversely affect the desert tortoise (*Gopherus agassizii*), a state and federally listed threatened species. Site fencing following facility installation will preclude post-construction use of some habitat by this species. "Incidental take" permitting under the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA) has been initiated. Translocation of desert tortoises from permanently impacted Project acreage to suitable offsite lands, and temporary removal of all at-risk animals during Project construction, have been identified as key mitigation measures.

Two adult desert tortoises have been observed within the Project's proposed permanent disturbance footprint, with an additional four adult animals observed in the adjacent zone of influence. Hatchling, juvenile or other adult tortoises, and perhaps even viable tortoise eggs (though unlikely), may also be discovered during clearance surveys of the Project site. The translocation of two or more desert tortoises therefore is anticipated from the Project's proposed permanent disturbance area, with the potential removal of four or more animals out of harm's way in temporary disturbance areas.

Specific direction for desert tortoise translocation and removal of at-risk animals is discussed in this document. This direction and a selected translocation destination area will be subject to regulatory agency approvals prior to implementation.

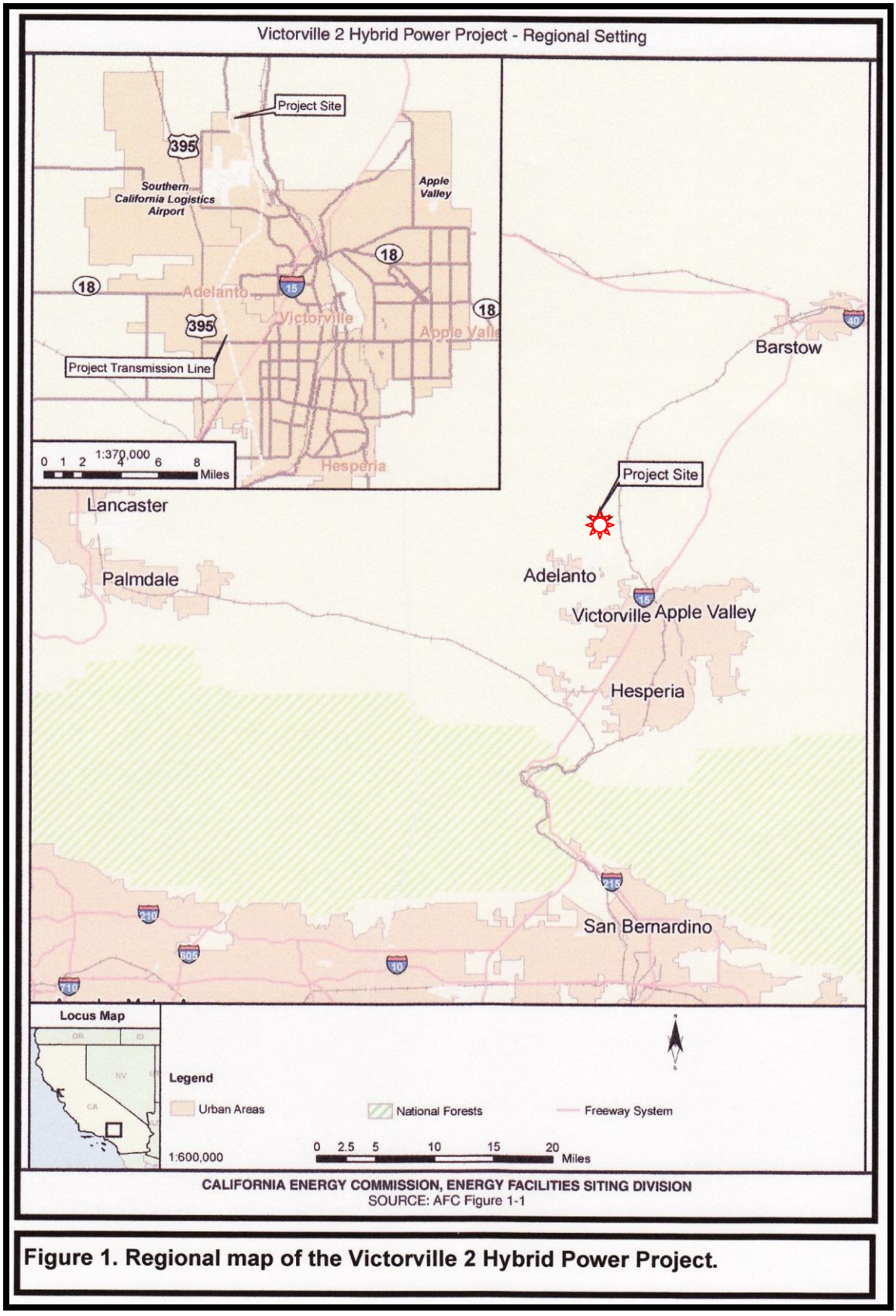


Figure 1. Regional map of the Victorville 2 Hybrid Power Project.

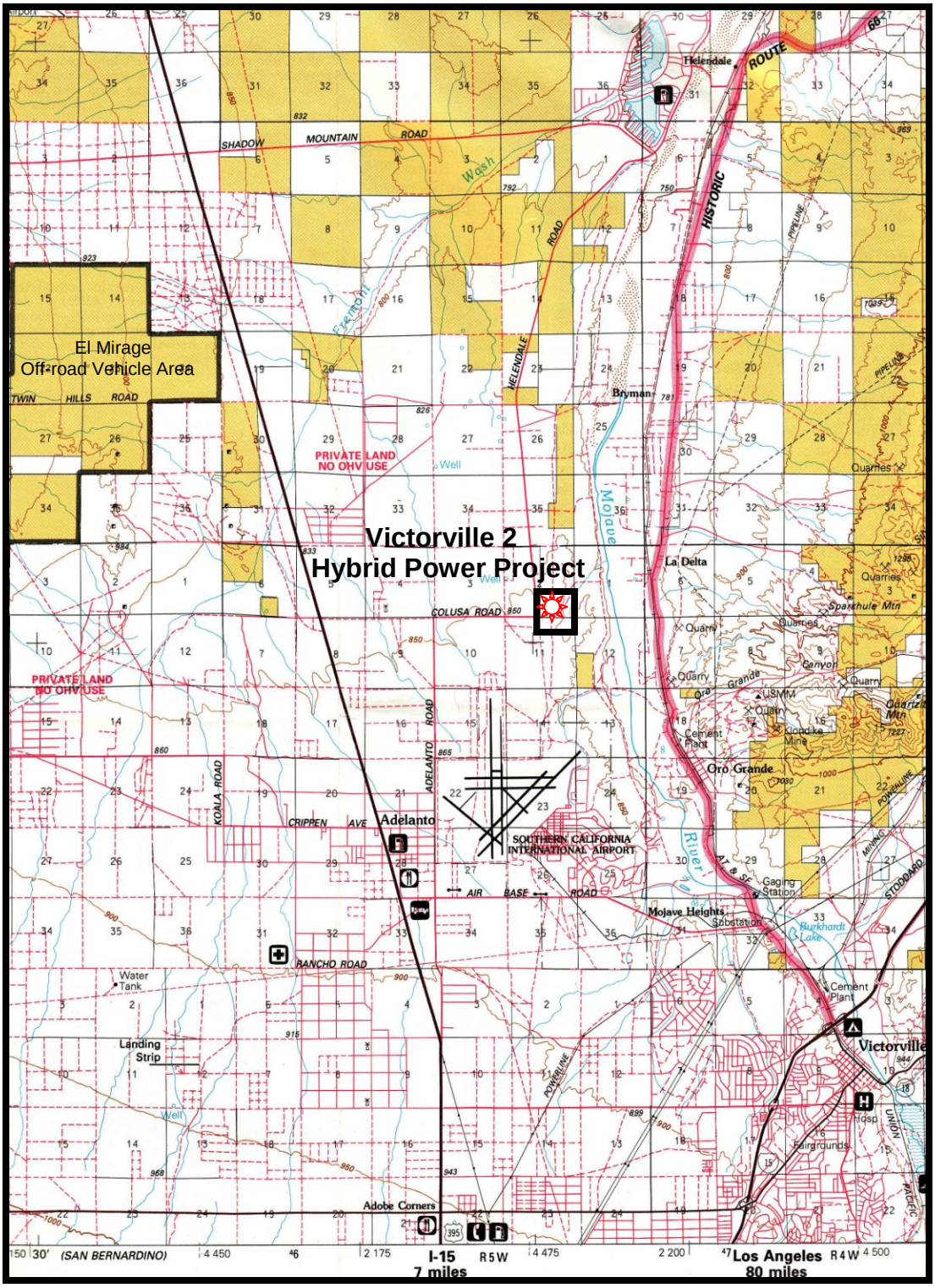


Figure 2. VV2 power plant and primary staging areas ☐ relative to private lands (white) and public lands (yellow) in northern Victorville, Adelanto and Helendale. Map modified from BLM (1998).

2.0 BACKGROUND

Desert tortoise translocation in wildland habitats is a relatively new and incompletely-studied field. This technique is becoming increasingly necessary to mitigate incidental take of this species where urban growth is occurring. Research on desert tortoise translocation and the removal of at-risk animals from urban development areas have been recommended by the U.S. Fish and Wildlife Service (USFWS) in the "*Desert Tortoise (Mojave Population) Recovery Plan*" (1994). Several broad guidelines for translocation also have been recommended (Appendix 2).

Translocation of desert tortoises can have beneficial effects on population growth of the species (FWS 2004). One measure of success for translocated animals is the degree which desert tortoises establish home ranges and enter into existing desert tortoise social structure (Berry 1986). However, a more commonly used measure of translocation success is tortoise survival.

Tortoises are known to have survived for at least 24 months when excluded from a portion of their home range (e.g., Stewart and Baxter 1987, TRW 1998). Tortoises are also well known for their survival when placed into suitable, captive environments (St. Amant and Hoover 1978) and when rehabilitated captive tortoises have been released (Cook 1983). Stewart (1993) observed that survival rates and average movements did not differ between translocated tortoises and resident animals during an 18 month period. Mullen and Ross (1997) similarly observed no difference between resident and relocated tortoise survival, which involved an analysis of late spring animal releases.

Translocation mortality within one year of release has been found in one instance to be substantially correlated with a period of drought (Saethre et al. 2003]. Other stressors and various anthropogenic influences (Lovich and Bainbridge 1999) undoubtedly affect the survival of individual translocated animals.

Although relatively few studies have been conducted, there appears to be no adverse effects on resident tortoise populations into which translocated tortoises are moved (Nussear 2004).

Two large translocation efforts are currently being implemented in the Mojave Desert as part of the Fort Irwin National Training Center Expansion (Esque et al. 2005) and the Hyundai Test Track project in California City (Karl 2003). Data collected from the considerably smaller VV2 Project Translocation Program in an urban interface area could serve to augment knowledge generated by larger translocation efforts.

The studies completed to date suggest that desert tortoise translocation, if conducted appropriately and during periods of forage availability, can result in high survivorship (Nussear et al. 2000, Karl 2007). The season of translocated animal release appears to have a substantial impact on tortoise mortality. Cook's (1983) study illustrated this point, where six of the eight known translocated animal deaths recorded in one such effort occurred when animals were released during the summer. Late winter (Field et al. 2003), fall or early spring months (pers. comm. Dr. Alice Karl, 2007) appear to be conducive to high translocation survival rates.

Additional considerations can factor into long-term survival potentials following even successful translocations. Desert tortoises "*have complex social behaviors and intimate familiarity with their home ranges, which can be quite large*" (USFWS 1994). Those translocation efforts incorporating a portion of a tortoise's original home range or involving similar translocation site habitat may facilitate an animal's ability to locate suitable forage in dry years and/or successfully avoid predation over the long term.

However, translocation of a tortoise into non-impacted portions of a home range is not always an option in rapidly developing areas. For all translocation efforts, whether tortoises are moved only short distances or away from their home range, care must be taken to ensure the translocated animals are not placed into sub-optimal habitat or at-risk areas.

Translocation should be considered as part of a "tool box" for conserving at-risk desert tortoises, according to Management Goal F of the California Statewide Desert Tortoise Management Policy (BLM and CDFG 1992). A carefully implemented translocation program can contribute to conservation of the species and also has the potential to provide useful data for future translocation efforts (Karl 2003, Field et al. 2007).

3.0 GOALS

Three overall goals have been identified for the VV2 Project Translocation Plan. These overall goals include:

(1) Successful translocation of at-risk desert tortoises from the VV2 power plant site to a selected translocation area and careful relocation of at-risk tortoises in the Project's connected linear utility features during construction to suitable habitat located adjacent to the active work area;

(2) Minimization of the impacts of translocation on recipient desert tortoise populations; and

(3) Collection of monitoring data to contribute to the collective knowledge of translocation as a viable conservation technique.

4.0 TRANSLOCATION PLAN

All desert tortoises who reside within the planned surface disturbance areas of the VV2 Project's power plant site and two primary staging areas must be translocated to a suitable offsite habitat prior to the initiation of construction activities. This translocation must be carefully implemented to avoid adverse health impacts to the tortoises to be translocated and to minimize impacts to any receiving tortoise population. In order to maximize translocation success, initial Project work must be closely coordinated with appropriate tortoise clearance surveys, animal health screening and careful translocation scheduling.

Sufficient measures must be implemented concurrent with this translocation to ensure other tortoises do not enter the active power plant work area. Desert tortoises who utilize habitats proximal to the Project's linear utility features must also be excluded from potential impact and/or removed from harm's way should they approach an active construction zone. Additionally, any considered translocation site and/or required compensatory habitat selection designed to fulfill permit conditions must be based on maximizing translocated animal survivorship and long-term conservation planning pertinent to all aspects of the Project.

To facilitate tortoise translocation and exclusion, permanent tortoise exclusion fencing is to be installed around the power plant and solar field perimeter prior to translocation taking place. Temporary fencing will be similarly installed around any initial work startup area, the two primary staging areas and possibly in portions of linear utility work areas.

At-risk tortoises found in temporary surface disturbance areas associated with the linear utility features, and which cannot be avoided, will be moved to an adjacent unrestricted location within the Project right-of-way. Pre-construction clearance surveys will be necessary in all Project site construction areas and material storage/equipment staging areas, as detailed in Section 4.2. Desert tortoise handling and transport, as explained in Section 4.3, will be necessary following biological clearance surveys of the power plant site and primary staging areas.

Animal health considerations to be evaluated in all desert tortoise handling endeavors of the VV2 Project are discussed in Section 4.4 of this plan. Translocation scheduling is discussed in Section 4.5. Desert tortoise translocation site options for this effort are presented in Section 4.6. Translocation site preparation needs and long-term management are briefly outlined in Sections 4.7 and 4.8. Section 4.9 describes the monitoring and reporting tasks believed beneficial for this translocation effort. All translocation techniques to be used per this plan will adhere to terms and conditions specified in an ESA Biological Opinion (USFWS 2008) issued for this Project (Section 4.10) as well as all CEC Conditions of Certification (CEC 2008) finalized for the Project.

4.1 Consistency with Plans and Permits

The techniques and translocation site options recommended herein are intended to be consistent with all pertinent regulatory plans developed for long-term conservation of the desert tortoise and specific permits issued for this Project. In addition, all actions discussed are based upon ecological considerations and information gleaned from previous desert tortoise translocations. Offsite translocation site habitat availability and consistency with established Translocation Guidelines (USFWS 1994, Appendix 2) as modified by current USFWS recommendations (R. Bransfield, USFWS, pers., comm. 2008), have provided primary direction for all translocation plan elements.

4.2 Clearance Surveys and Site Fencing

Clearance surveys of tortoise habitat (USFWS 1992) will be completed according to established protocol (http://www.fws.gov/ventura/sppinfo/protocols/DT) by experienced biological personnel in all sites where surface disturbance is planned for the Project. Transect spacing between monitors will be appropriate for the vegetation present in the clearance area. All tortoise sign encountered during clearance surveys will be recorded on standard forms (USFWS 1992) and studied for its possible indication of tortoise presence. All burrows that could potentially host a tortoise will be excavated with hand tools per the method prescribed by the Desert Tortoise Council's "*Guidelines for Handling Desert Tortoises during Construction Projects*" (1994, rev. 1999).

Initial desert tortoise presence-absence surveys for the Project were completed in 2006 (Figure 3). The first tortoise clearance survey for the Project area was completed in April, 2008 and has provided an update of tortoises and sign previously mapped in the vicinity (Figure 4). Two to three tortoises are believed to reside in the northern portion of the proposed solar array field and adjacent lands. Additional tortoises are known from west and north of the Segment 1 linear utility feature. Two additional clearance surveys (Karl and Resource Design Technology 2006) are scheduled (Figure 5) for the initial construction startup area following temporary fence installation in August 2008, to ensure all tortoises are located prior to surface disturbance. A single clearance survey will also be completed prior to temporary fence installation along the Project's four mile-length Adelanto-Colusa-Helendale Road access route (Appendix 3).

In the September 2008 timeframe, two additional clearance surveys will be completed following temporary fences installation in the remaining unfenced portions of the power plant, solar array field and primary staging areas. Permanent fencing will be preceded by temporary fence installation until such time as necessary site grading is completed. Where exclusion fencing is not installed for construction zones, such as along the linear utility features, surveys will be conducted immediately prior to construction taking place (Figure 6). Tortoises and burrows encountered will be mapped and regularly monitored. Construction in these unfenced areas will also be continually monitored by biologists who will remove tortoises out of harm's way to nearby suitable habitat in the animals' home ranges, should any tortoise approach active work areas.

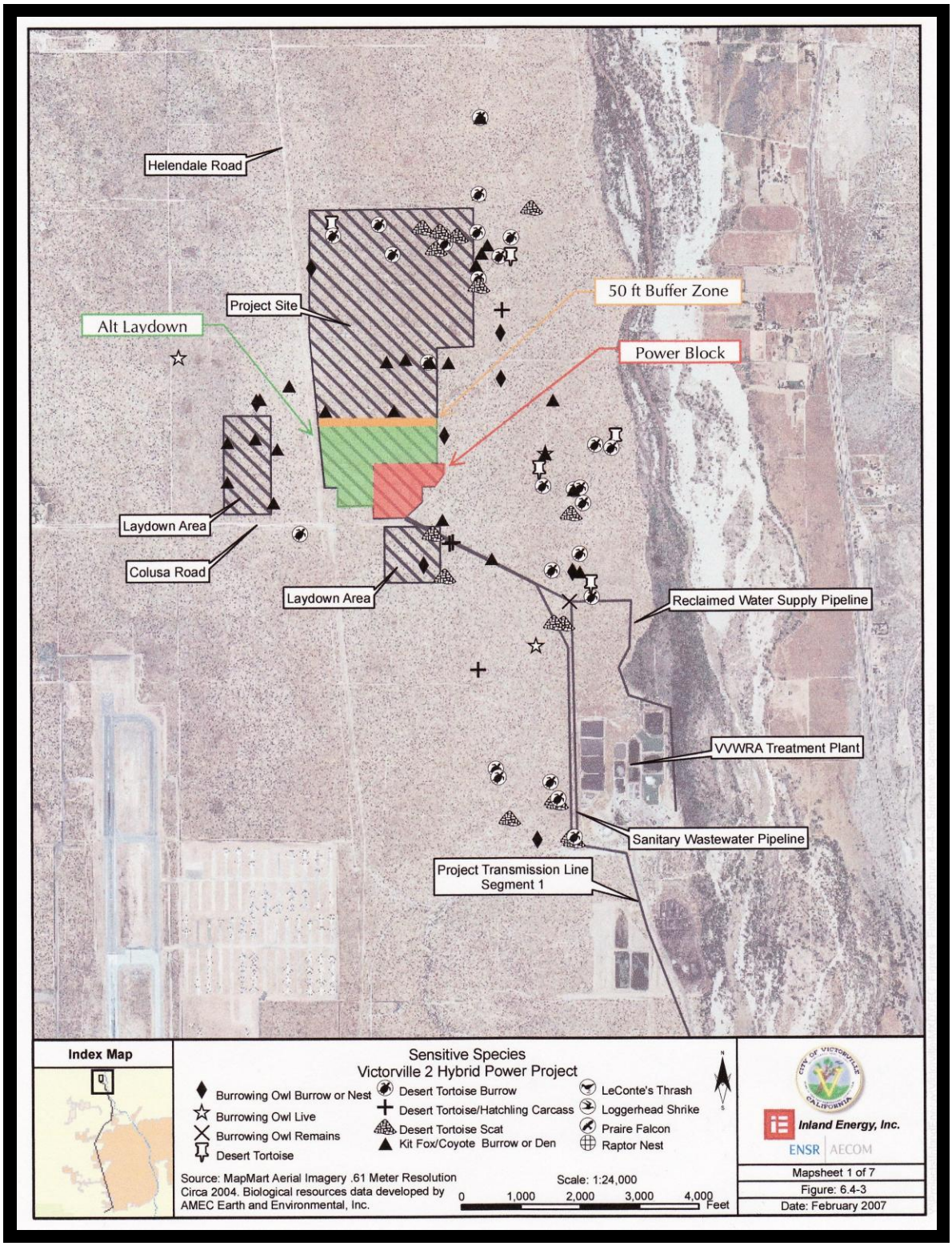


Figure 3. Desert tortoise (*Gopherus agassizii*) and other sensitive species recorded in proximity to the Victorville 2 Hybrid Power Project in 2006.

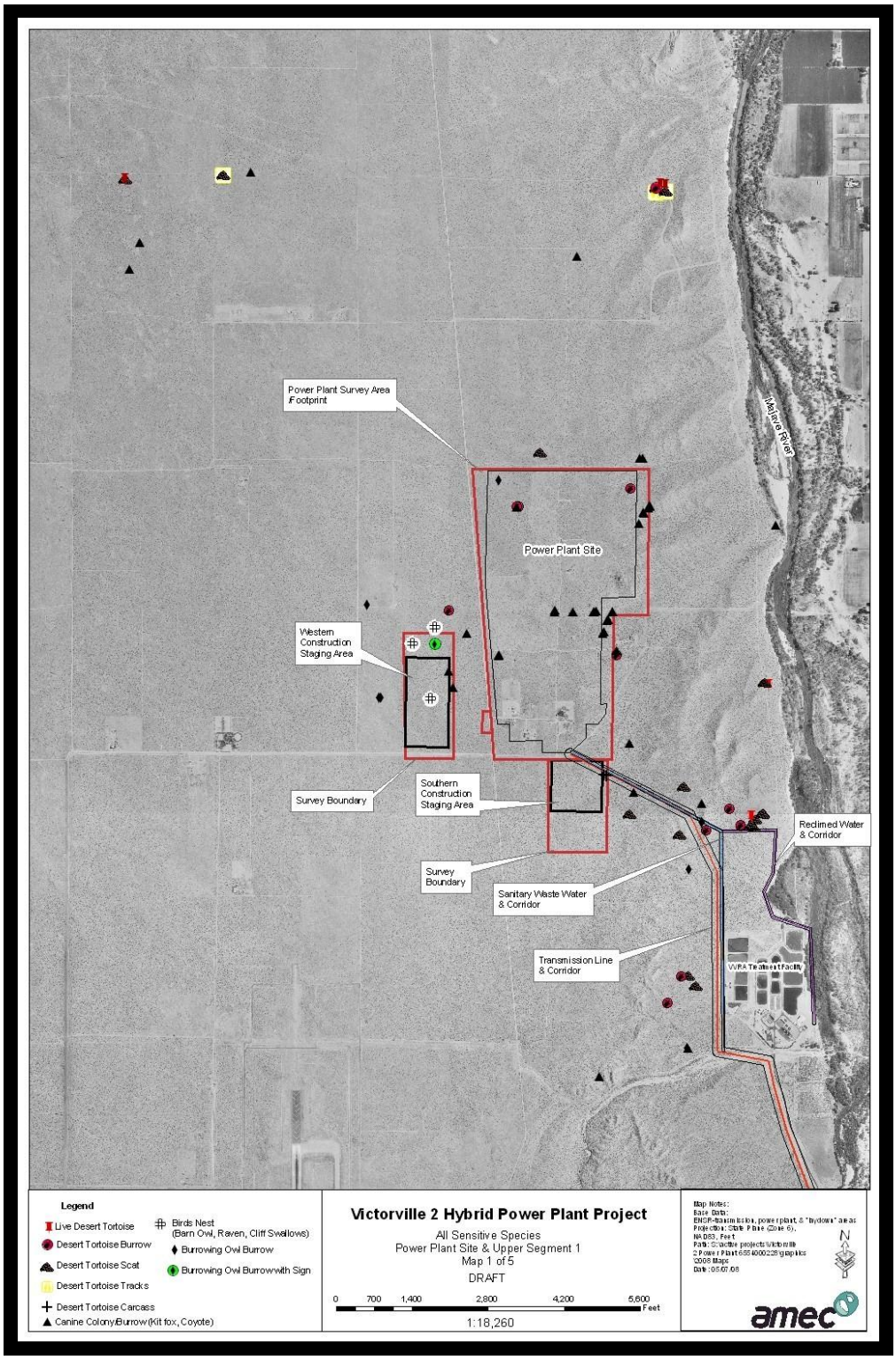


Figure 4. Desert tortoise (*Gopherus agassizii*) and other sensitive species recorded in proximity to the Victorville 2 Hybrid Power Project in 2008.

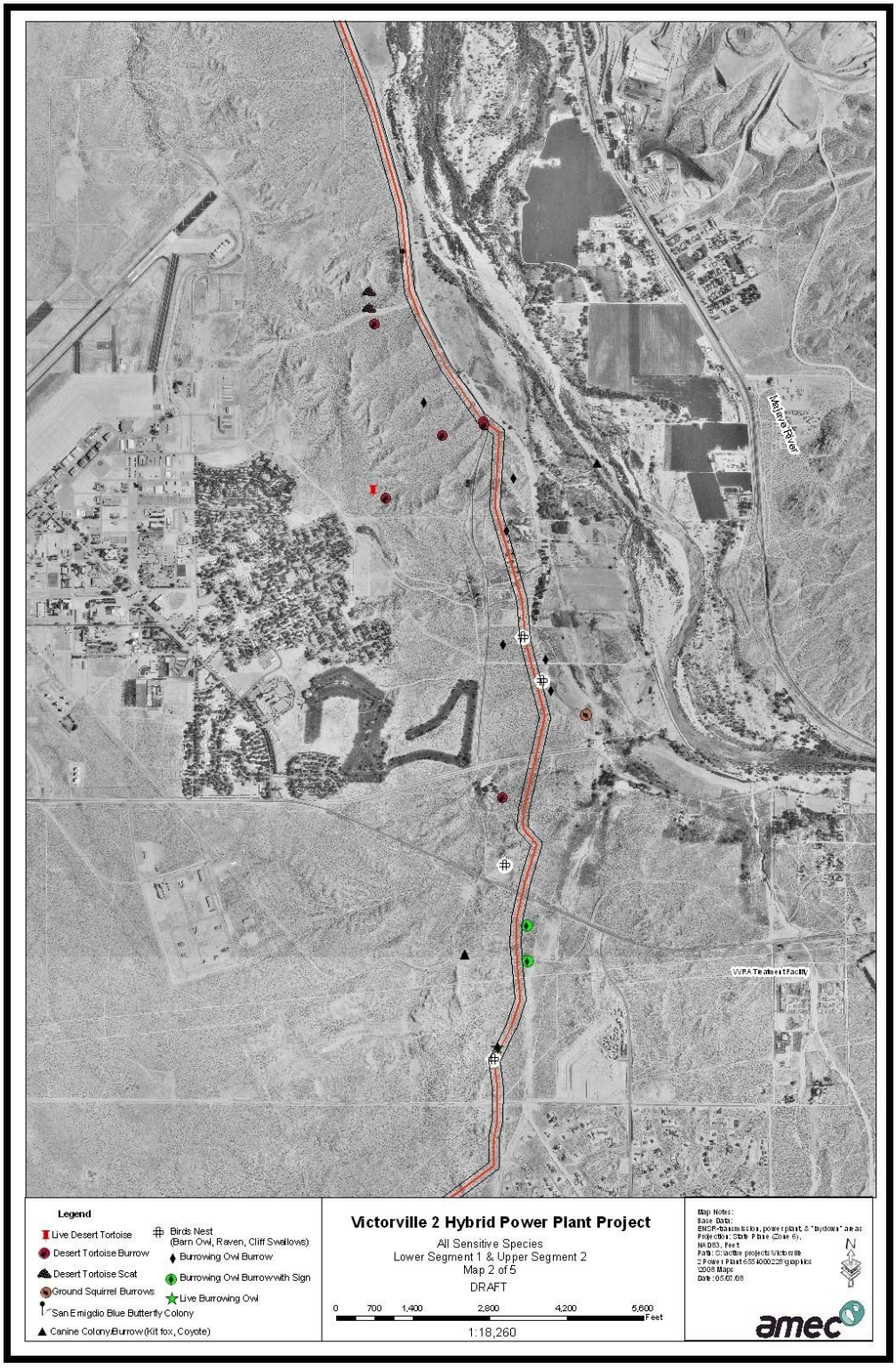


Figure 4 Continued. Desert tortoise (*Gopherus agassizii*) and other sensitive species recorded in proximity to the Victorville 2 Hybrid Power Project in 2008.

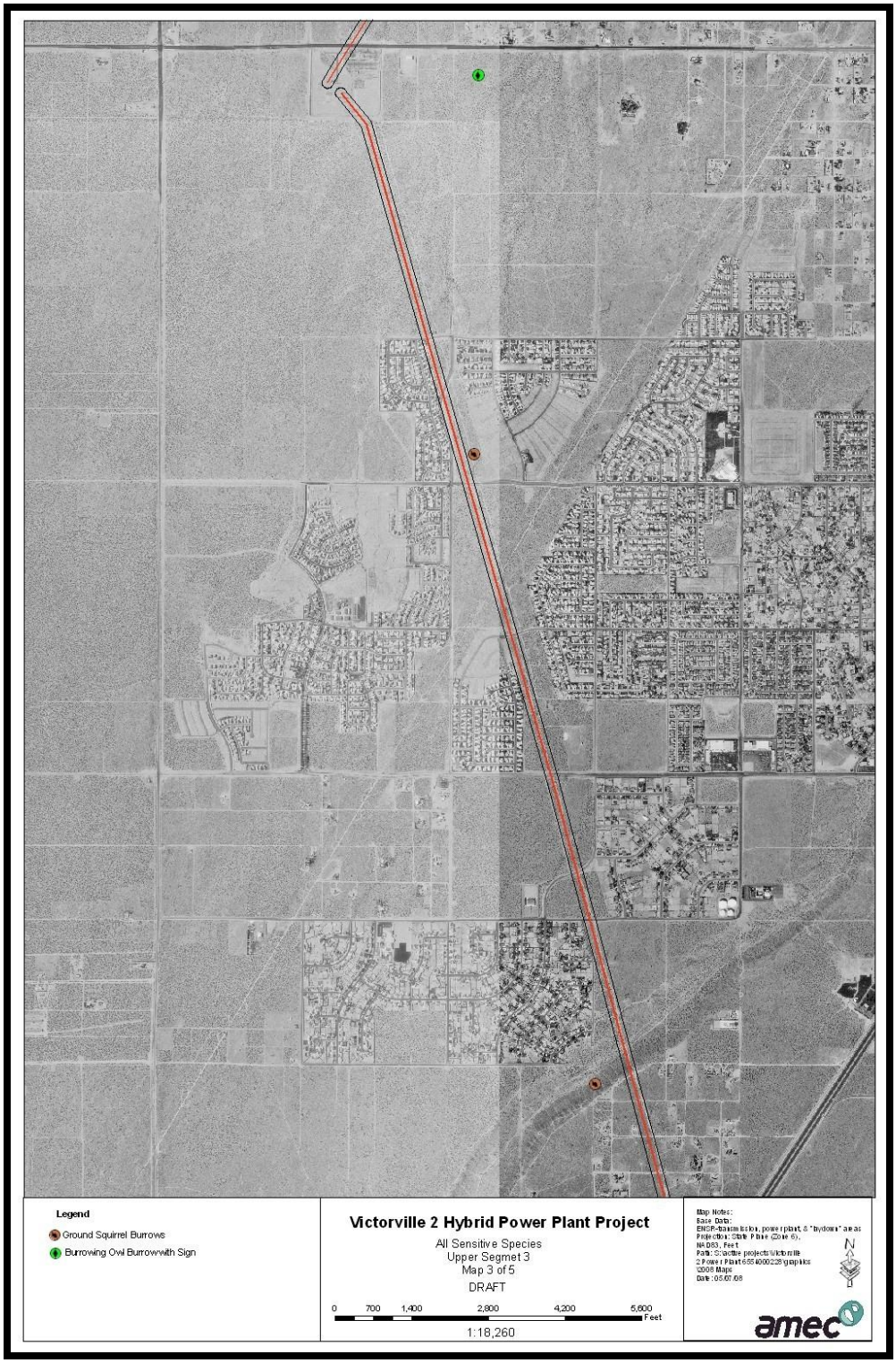


Figure 4 Continued. Desert tortoise (*Gopherus agassizii*) and other sensitive species recorded in proximity to the Victorville 2 Hybrid Power Project in 2008.

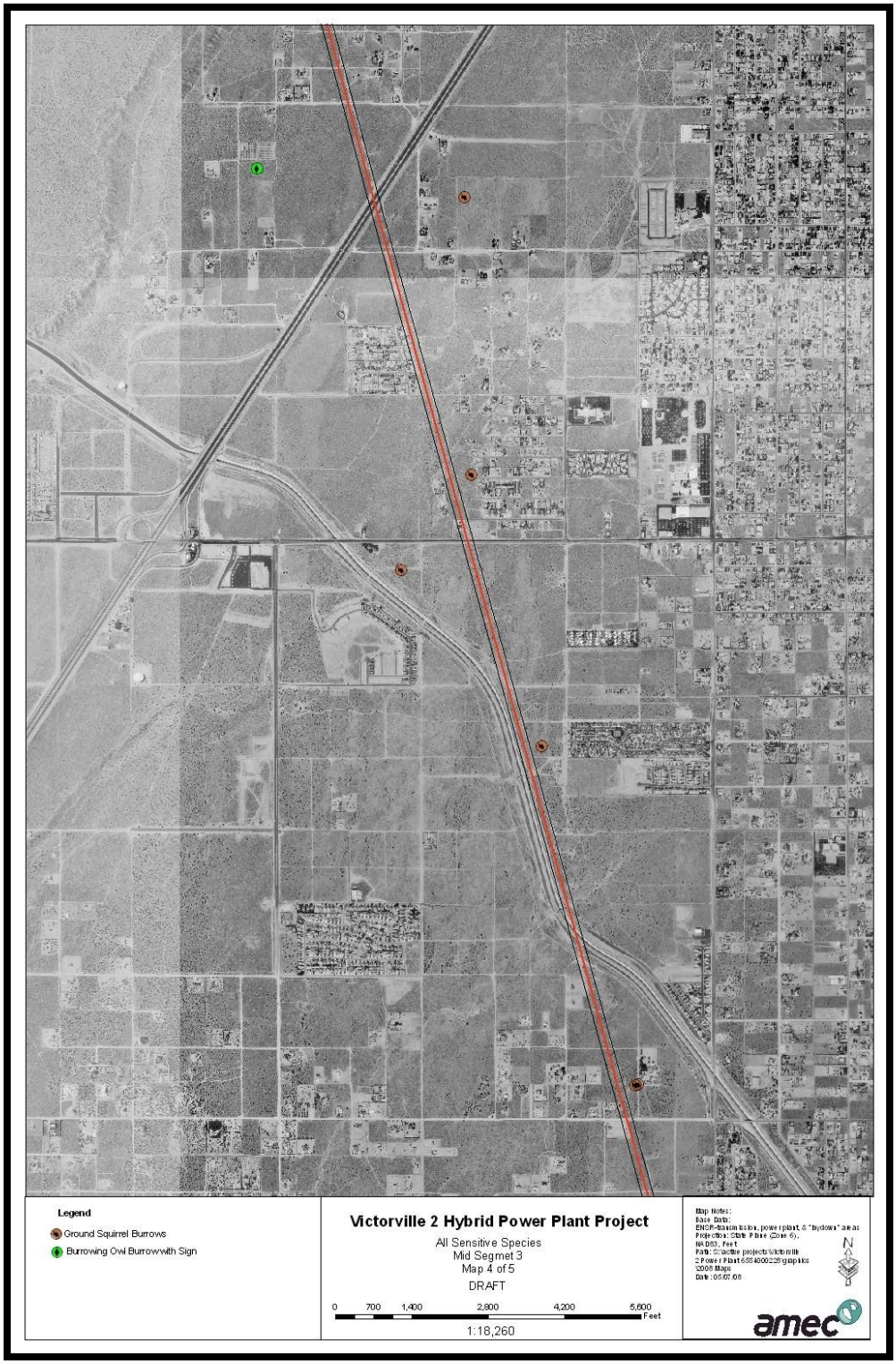


Figure 4 Continued. Desert tortoise (*Gopherus agassizii*) and other sensitive species recorded in proximity to the Victorville 2 Hybrid Power Project in 2008.

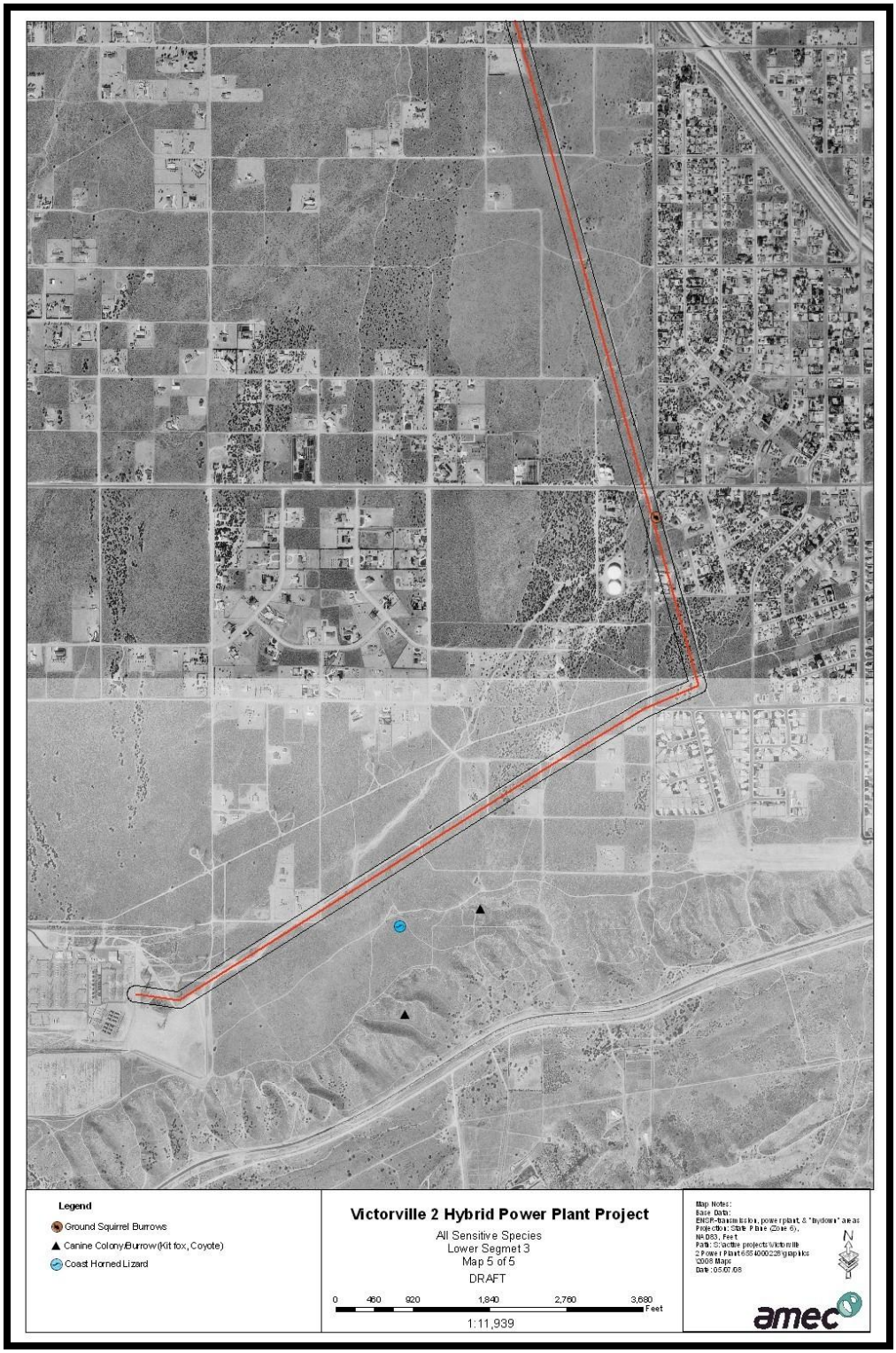


Figure 4 Continued. Desert tortoise (*Gopherus agassizii*) and other sensitive species recorded in proximity to the Victorville 2 Hybrid Power Project in 2008.

Figure 5. Victorville 2 Hybrid Power Project

Desert Tortoise Clearance Survey Scheduling for the Power Plant Site, Solar Array Field & Primary Staging Areas

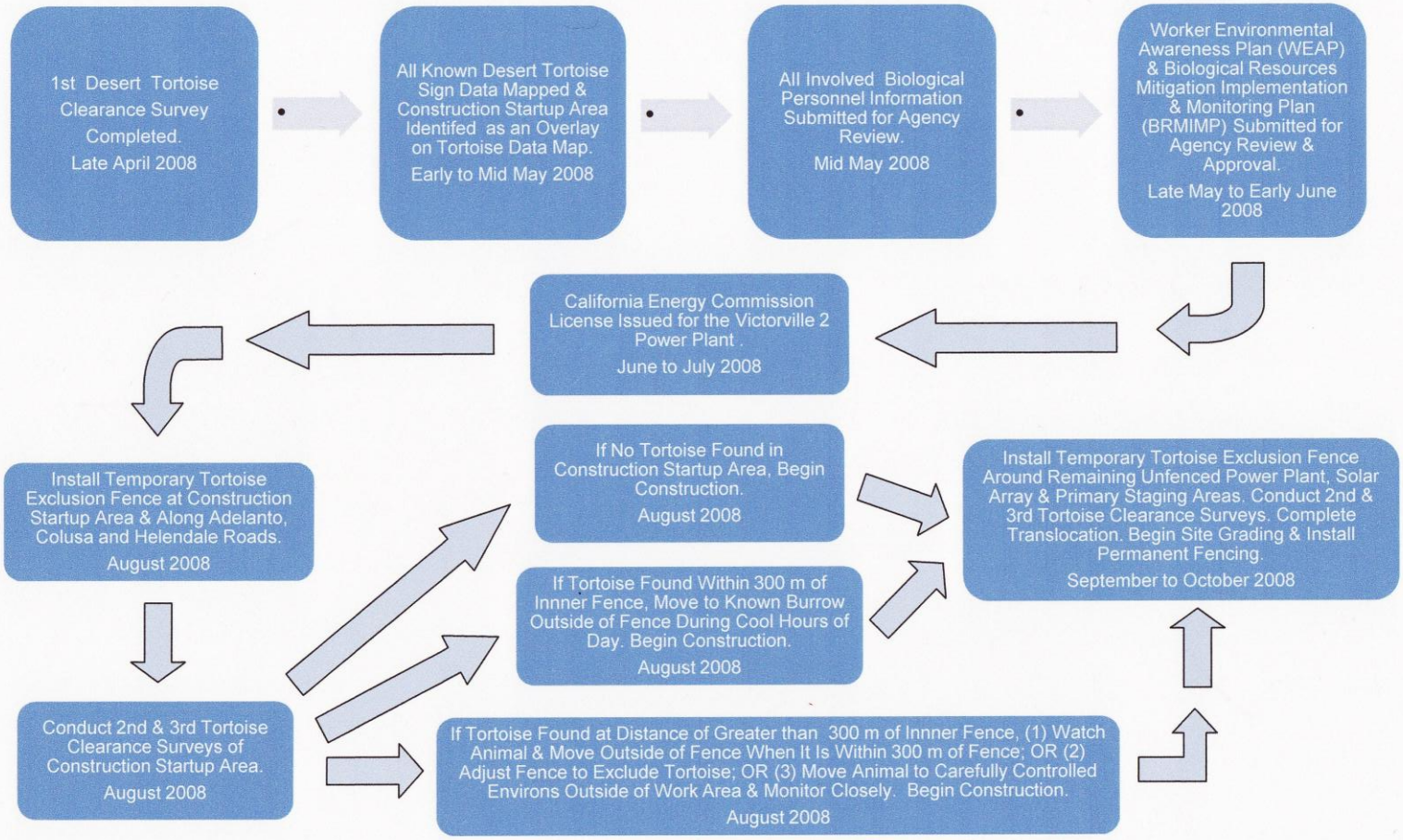
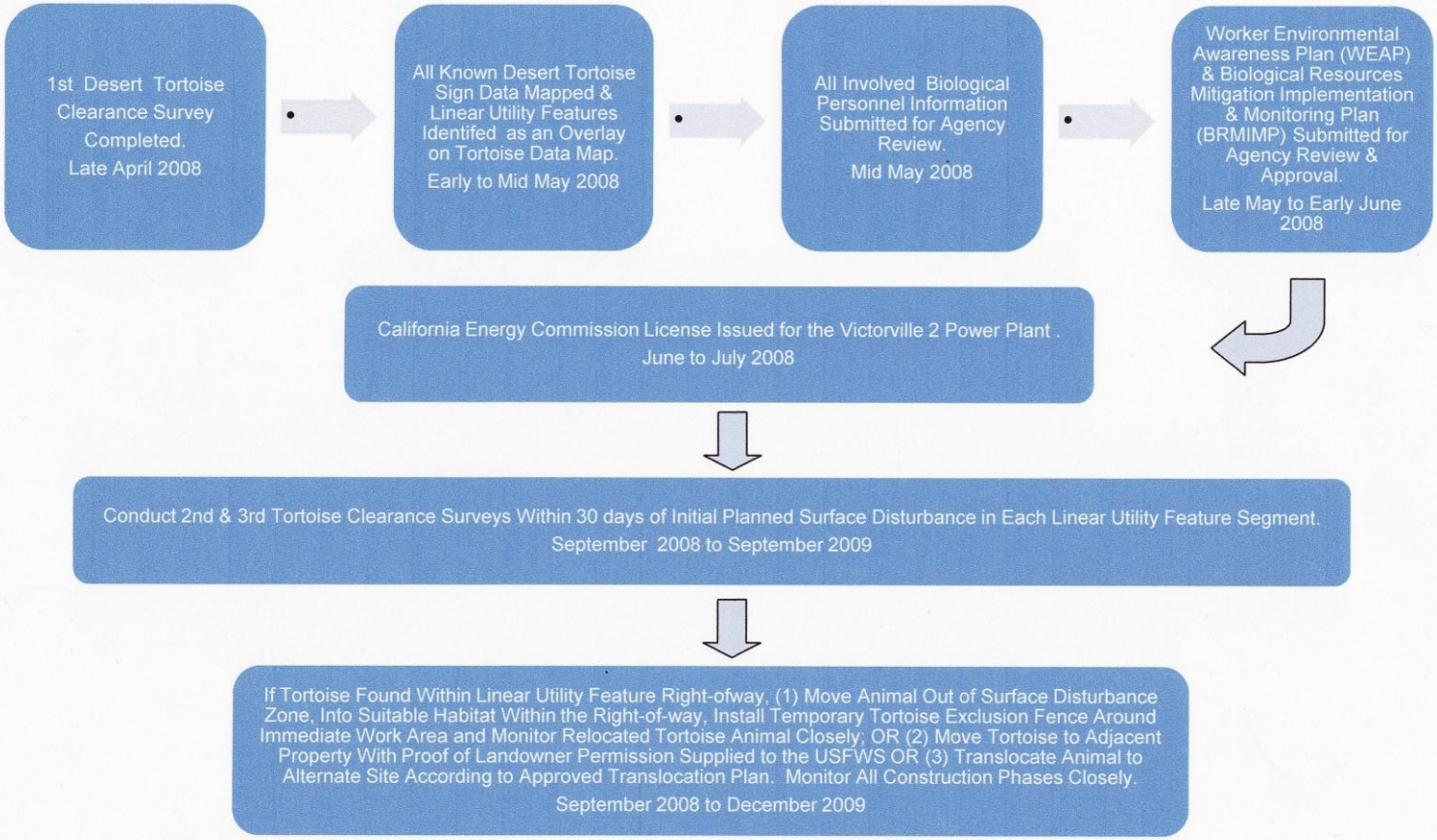


Figure 6. Victorville 2 Hybrid Power Project

Desert Tortoise Clearance Survey Scheduling for Linear Utility Features



For permanent perimeter fence installation in the power plant area and associated solar array field, hardware cloth-mesh material (Figure 7) will be attached to chain-link fencing. Similar hardware cloth is used in temporary fencing, which will be installed prior to clearance surveys around the initial construction startup/primary staging areas, and potentially in portions of linear utilities. Both designs involve the installation of three-foot-wide, 1 by 2 inch mesh hardware cloth, situated at 24" above ground, with 12"of material buried (http://www.fws.gov/ventura/sppinfo/protocols/DT Exclusion-Fence 2005.pdf.).

Rebar is used to secure hardware cloth material every 4-5 feet and T-stakes are placed every 8-10 feet along this fencing, or there will be a comparable design to ensure fence integrity. All fencing is to be overseen by qualified biological monitors and will be monitored at least monthly, as well as during storms and after high wind events. Sand and debris will be removed as necessary. Repairs will be made immediately; or weekly if fence-cutting by recreational vehicle users becomes a problem.

4.3 Desert Tortoise Handling and Transport

A biologist experienced with desert tortoise ecology and the principles of conservation biology will direct the VV2 construction monitoring and translocation efforts. Only persons permitted by USFWS and CDFG through the auspices of ESA Biological Opinion and CESA incidental take permit will handle desert tortoises. Handling will only be done using approved techniques (e.g., Desert Tortoise Council, 1994) that incorporate the most recent, pertinent research data (e.g., Brown 2003).

Animal gender, carapace length, mass, overall condition, capture site location and description will be recorded for all animals handled. All tortoises handled will also be photographed and closely examined for clinical signs of animal disease (discussed further in Section 4.4) at the time of capture.

While no tortoises are currently known to occur within the linear utility feature construction zones, clearance surveys will be conducted in these areas prior to surface disturbance to ensure no animals would be placed at-risk by Project work. Potential animal handling and minimal distance transport may consequently be found necessary.

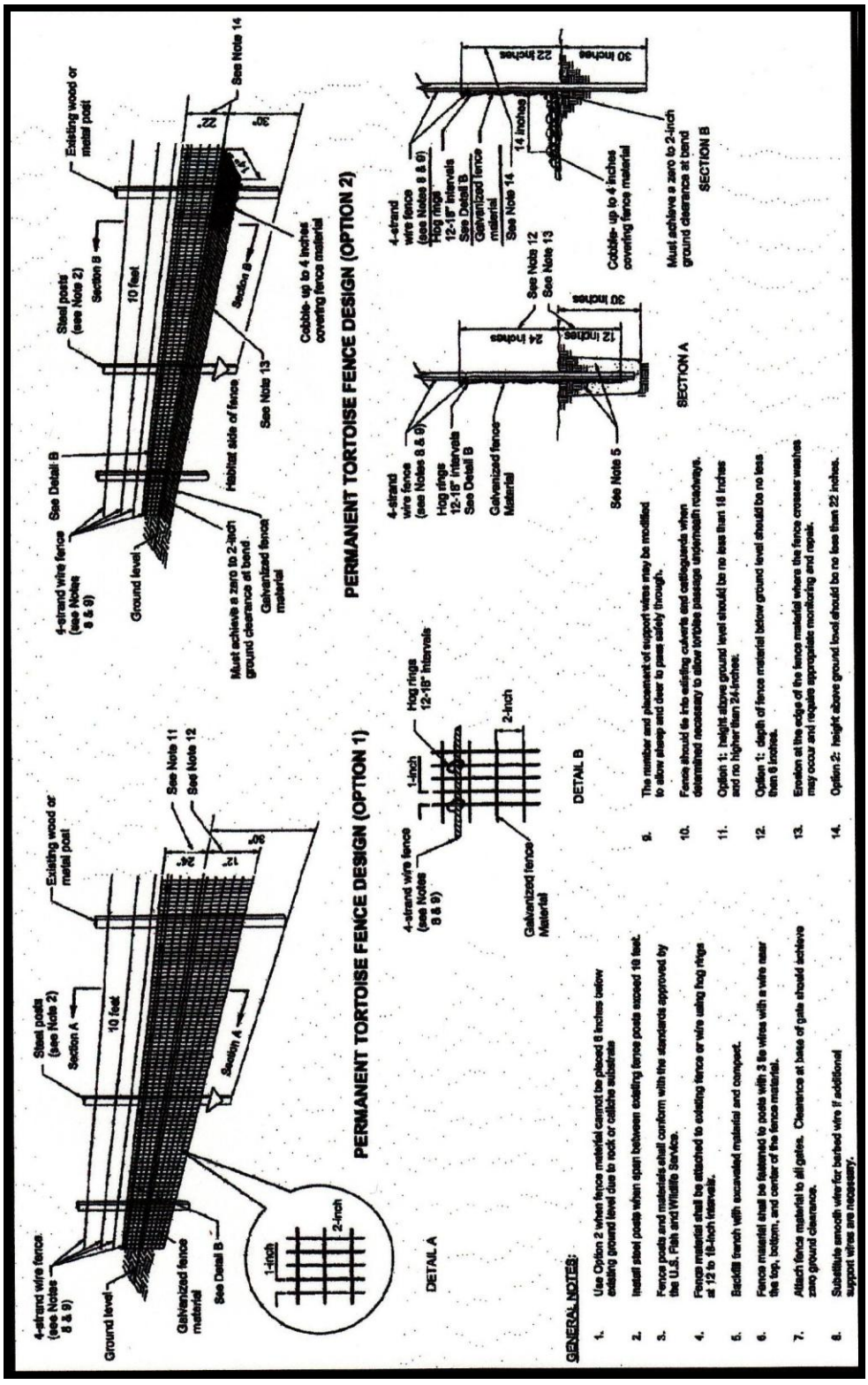


Figure 7. Permanent desert tortoise exclusion fence design (Esque et al. 2005).

Any tortoises discovered in proximity to linear utility areas during construction work will be closely monitored to ensure these animals do not enter into harm's way. These animals will not be moved unless found to be at-risk. If impacts to tortoises are thought at all possible, the affected animal(s) will be carefully moved to an unrestricted location within the Project right-of-way, or to adjacent lands where approved by the respective landowner; thereby allowing these animals to remain within their established home range. The use of temporary exclusion fence installation will be considered where necessary in linear utility areas to prevent tortoise entry into active construction areas.

Each tortoise to be moved will be transported via an individual, sterilized tub with a taped, sterilized lid. Containers may be reused only after being disinfected with a 10% bleach solution and dried. Every effort will be made while handling tortoises to release each animal within 30 minutes of its capture. Except during brief 1-minute periods when plastron measurements, weighing and photographs are taken, animals will be kept in an upright position.

When live desert tortoises are transported by vehicle, a means of cushioning the desert tortoise will be used to minimize jarring, bumping, and sliding. Tortoises will not be placed in automobile trunks, on floorboards in an unconfined manner, in the bed of a truck over the exhaust system, or left unattended in vehicles. Transport by vehicle will involve only designated open routes, with speeds limited to 25 miles per hour.

During all handling procedures, tortoises will be treated in a manner to ensure they do not overheat, exhibit signs of overheating (e.g., gaping, foaming at the mouth, hyperactivity, etc.), or are placed in a situation where they cannot maintain temperatures necessary to their well-being. Tortoises will be kept shaded at all times until it is safe to release them, with ambient air temperatures measured in the shade, protected from wind, and at a height of 2 inches above the ground surface. Tortoises will not be captured, moved, transported, released, or purposefully caused to leave a burrow for whatever reason when the ambient air temperature is above 95 degrees Fahrenheit (35 degrees Celsius). No tortoise will be handled where the ambient air temperature is anticipated to exceed 95 degrees Fahrenheit prior to completing all anticipated handling and processing tasks.

If the ambient air temperature exceeds 95 degrees Fahrenheit during handling or processing, desert tortoises will be kept shaded in a controlled environment which does not exceed 95 degrees Fahrenheit. These animals will not be released until ambient air temperature declines to below 95 degrees Fahrenheit.

If a tortoise voids its bladder as a result of being handled, the animal will be rehydrated. The process of rehydrating a desert tortoise will take place at the location where the animal was captured (or to be released, for translocated tortoises), and consist of placing an individual tortoise in a tub with a clean plastic disposable liner for a minimum of 10 to 20 minutes. The amount of water that is placed in the lined tub will not exceed the lower jaw height of the tortoise.

Tortoises identified during clearance surveys that are to be translocated, i.e., those residing within the main VV2 power plant site and associated staging areas, will be examined, measured and assigned a unique number upon capture (USFWS 2008). Tortoises will be marked using small epoxy number placement on the animal's carapace.

Blood samples of each tortoise to be translocated will also be acquired for use in animal health assessment. Blood samples will be submitted to Dr. Mary Brown at the University of Florida Mycoplasma Research Lab (1600 SW Archer Rd., BSB 350, Gainesville FL 32610) for testing. Those tortoises found to be health-compromised or seropositive would be translocated to captive locations associated with conservation, educational or research endeavors, or made available for adoption by approved entities. A 10-acre fenced "head-starting" natural area currently under construction at Edwards Air Force Base (Mark Hagan, pers. comm. 2008) could be considered for any seropositive tortoise placement. Alternatively, tortoise care pens established at the Lewis Center Academy for Academic Excellence in Apple Valley could be considered for any seropositive tortoise placement, following appropriate approvals.

Each adult tortoise to be translocated will also be fitted with a light-weight radio transmitter having a battery life of at least one year. Transmitter attachment will allow tortoises to be kept in place at the point of capture during blood testing and facilitate animal relocation following acquisition of blood testing results.

Radio transmitters will be attached to tortoises similar to the manner described in Boarman *et al*. (1998). Radio transmitters and antennae must be mounted so as not to impede growth or the daily activities of the tortoise such as burrow construction, righting of overturned desert tortoises, and mating. Tortoises fitted with transmitters will be monitored at least monthly. Following translocation and a planned telemetry monitoring period of approximately one year, transmitters would be removed.

Every effort will be made to ensure that the well-being of the desert tortoise is not compromised by either the process of attaching radio transmitters or the location and operation of these devices. Placement and installation of radio antennae on desert tortoises shall be done in a manner that eliminates voids between the carapace and the antennae (i.e., the antennae attachment shall be flush with the carapace). Antennae may be left trailing unattached behind the tortoise.

The total mass of the instrumentation that is attached to each desert tortoise including antenna, epoxy, etc., shall not exceed 10 percent of the animal's body mass. Radio transmitters that contain weak batteries shall be removed or replaced before the batteries are likely to fail. For translocation purposes, captured tortoises may be held overnight and moved the following morning within the previously outlined temperature constraints.

Additional radio transmitter use direction pertinent to the VV2 Translocation Plan and tortoises is detailed below:

A. Radio transmitters may temporarily (up to 48 hours) be attached to tortoises with duct tape, in situations in which full processing cannot be completed to comply with temperature guidelines, or when light levels do not allow for formal and final transmitter attachment.

B. Any shell damage from attachment or removal of radio transmitters will be reported in writing within 3 working days to the USFWS and CDFG.

C. Where transmitters are affixed to tortoises, these animals will be monitored at approved intervals year-round to ensure that animals are not lost due to long-range movements beyond the area capable of being detected by telemetry equipment. If a desert tortoise has a malfunctioning transmitter it will be replaced before the animal becomes active.

D. Transmitters and other equipment will be removed from all tortoises that can be located prior to end of monitoring timeframes. Every effort to locate and remove non-functioning transmitters and other equipment from tortoises thus handled in the VV2 Translocation Program will be made.

   This effort shall include thorough searches of each affected tortoise's home range and all known shelter sites. All efforts to locate tortoises will also be documented within monitoring reports submitted to the involved regulatory agencies, along with an estimate of the number of hours spent or areas covered while searching for tortoises with non-functioning transmitters and other equipment.

Juvenile tortoises found during September 2008 clearance surveys that are too small for transmitter attachment, i.e., less than 110 mm, will be placed in an onsite, protective enclosure within a designated contingency holding area (see Section 4.6 below) to await blood sampling results. If determined healthy, juvenile tortoises will be carefully transported to the selected translocation site and placed in a similar protective fenced enclosure. After a two-week acclimation period in the final translocation area, this protective enclosure will be modified (Morafka et al. 1997) to allow for animal departure. Following translocated animal departure, enclosure materials would be removed.

Adult tortoises found healthy and disease-free would also be moved to the selected translocation site. Tortoises assessed as clinically ill or diseased (see Section 4.4) will be transported separately from healthy tortoises to an approved adoption entity or research facility, according to regulatory agency direction.

Transport of desert tortoises to the selected translocation site should only occur when ground temperatures consistently do not exceed 42°C, so that animals can safely find refuge in potentially unfamiliar areas without the added constraints of warmer temperatures.

Tortoises moved to the selected translocation destination area will be transported via individual, sterilized tubs with taped, sterilized lids. Upon arrival at the selected translocation destination site, transported animals should be placed at artificial burrow entrances. However, as artificial burrows are infrequently used by a tortoise readily, animals should only be moved when there is sufficient time and at an ambient temperature for the tortoise to either accept an artificial burrow or create/find another initial shelter site. All tortoises moved to the translocation destination site will be monitored to ensure shelter is acquired by the animal before being left on their own.

Desert tortoise nests identified during clearance survey burrow excavation will be moved to a microsite (e.g., shrub cover, soil type, substrate cover, etc.) as similar to the locality found as possible (e.g., same degree of vegetative cover, plant species, soil substrate, aspect) in the selected translocation area, using standard techniques (e.g., Desert Tortoise Council, 1994). Any desert tortoise nests found between November and April are unlikely to be viable (Karl and Resource Design Technology 2006) and will not be moved during clearance surveys. Desert tortoise nests translocated, if any, will be protected according to the standard techniques cited above for facilitating optimum hatching success and carefully monitored.

If any tortoise mortality is suspected as a result of burrow excavation, animal handling or radio transmitter use methodology, CDFG will be notified immediately. Monitoring reports (Section 4.7) will be prepared by a designated biologist monthly for the duration of Project construction work. Project progress and mitigation measure implementation [see Table 1: Implementation Schedule] will be recorded. This recordation will include the capture and release locations of all tortoises found, animal measurements, and other relevant data. A final mitigation report will also be prepared following translocation program completion summarizing all findings.

4.4 Animal Health Considerations

Several diseases have been documented in wild desert tortoise populations in the Mojave Desert. These include an upper respiratory tract disease (URTD) commonly associated with *Mycoplasma agassizii* (Rostal and Lance 2003); as well as a similar disease complex connected to *Mycoplasma testudinium* and proliferative pneumonia (Jacobson and Berry 2004); a cutaneous dyskeratosis shell disease (Christopher et al. 2002, 2003), and a herpes virus (Origgi et al. 2002).

Upper respiratory tract disease and similar complexes are likely exacerbated by stress (M. Brown, pers. comm. to Tracy et al. 2004), which can be imposed on desert tortoises by drought, habitat degradation, poor nutrition and/or animal density (Saethre et al. 2003). It is also likely that certain levels of stress predispose desert tortoises to acquiring one or more of these diseases.

It is conceivable that the stress of translocation may either exacerbate existing disease or immunocompromise an animal to contract disease more easily. Other diseased animals must, however, be in the translocation area for healthy translocated tortoises to become infected. The current rate of infection in wild tortoise populations throughout the western Mojave Desert is unknown, but has been observed to be approximately 3-5 % in three sites located several miles northwest of the site (A. Karl, field notes).

M. agassizii transmission involves direct contact with an infected tortoise (Brown *et al.* 2003). Desert tortoises are believed to be contagious during periods of acute phases, when they have clinical signs (Brown *et al.* 2003). Such signs include a mucous nasal discharge, wheezing, conjunctivitis, and lethargy.

According to Schumacher et al. (1997) positive clinical signs statistically correlate with positive serology (i.e., exposure to *M. agassizii*). A mucous nasal discharge was the clinical sign that was the most reliable predictor (93% of tortoises with a mucous nasal discharge were seropositive), although it could be caused by other pathogens. Positive serology [i.e., *M. agassizii*-specific antibodies detectable by an enzyme-linked immunosorbent assay (ELISA)] is indicative that a tortoise has been exposed to *M. agassizii* (Schumacher *et al*. 1993).

While positive serology does not necessarily indicate an active infection by *M. agassizii,* it has generally been observed that seropositive tortoises are infected with *M. agassizii* (Drs. Lori Wendland and Mary Brown, University of Florida Mycoplasma Research Lab, pers. comm. Dr. Alice Karl, 2004).

All tortoises handled as part of this Translocation Plan will be examined for clinical signs of URTD symptoms, visible signs of herpes lesions and cutaneous dyskeratosis (Berry and Christopher 2001), with data recorded for each animal. Blood samples (no more than 2 cc) will be collected via standardized techniques of brachial or subcarapacial venipuncture (University of Florida, Department of Pathobiology, no date) to test for the presence of antibodies to *M. agassizii*. Nasal samples will be taken using standardized flushing techniques (Wendland 2001) to culture for *M. agassizii* and potentially other pathogens (e.g. herpesvirus, *M. testudinum*, iridovirus, *Pasturella testudinis*).

Only experienced persons who have been previously permitted to conduct this work on desert tortoises will collect blood samples. Whole blood will be centrifuged and both the plasma and nasal samples will be packaged on ice and sent overnight express freight to the University of Florida Mycoplasma Research Lab for testing. Following initial blood sampling, tortoises will be fitted with transmitters and not moved until ELISA test results have been acquired, as described in Section 4.3 above. Verified ill tortoises will not be placed in situations where contagion can spread to healthy tortoises. Seropositive tortoises can survive in controlled environments where care is provided (Rostal and Lance 2003), and any such animals identified as part of this Translocation Plan will be placed in appropriate adoption or research facilities.

4.5 Translocation Scheduling

Project permits and approvals are currently anticipated to be finalized in June-July 2008. After careful consideration of planned Project work timetables and tortoise translocation temperature constraints, a complete translocation schedule (Table 1) has been identified that would allow for an August 1, 2008 surface disturbance initiation date. The flowcharts previously depicted in Figures 4 and 5 describe specific aspects of tortoise clearance survey scheduling for the April 2008 through September 2009 time period.

Table 1. Implementation Schedule (2008-09) for the Victorville 2 Hybrid Power Project Translocation Program.

Task	Year 2008 Month											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Select translocation site option. Finalize private land transfer or secure public land use approvals.												
Delineate initial work zones (power plant/staging areas) & 50 foot buffer areas with wood lath, avoiding burrows.												
Install temporary tortoise exclusion fencing around initial work zones/access road. Survey for tortoises prior to construction work.												
Soil disturbance in initial work zones.												
Install permanent tortoise exclusion fencing at power plant and temporary fencing at staging areas.												
Conduct clearance surveys of power plant/staging area. Mark tortoises, affix transmitters, sample blood & complete ELISA testing. Healthy tortoises translocated & seropositive tortoises adopted.												
Monitor translocated tortoises.												
Construction work throughout entire Project area.												

Table 1 Continued. Implementation Schedule (2008-09) for the Victorville 2 Hybrid Power Project Translocation Program.

Task	Year 2008 Month											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Closely monitor work in linear utility areas. Move at-risk tortoises to approved location.												
Monitor and maintain exclusion fences.												
Monthly reporting.												

Task	Year 2009 Month											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Construction work[1].												
Closely monitor work in linear utility areas. Move at-risk tortoises to approved location.												
Monitor and maintain exclusion fences.												
Remove temporary fencing & revegetate temporary impacts.												
Monitor translocated tortoises.												
Assess translocated tortoise health & remove transmitters.												
Monthly reporting.												

[1] Power plant construction work limited to permanently fenced Project area and linear utilities.

All startup construction surface disturbance activities have been phased to avoid tortoise burrows and the need for translocation during the heat of summer months, with final tortoise translocation to be completed in the cooler temperatures of late September or early October, 2008. Tortoise surveys of the Project area involving a single clearance pass have been conducted (April 2008) and used to identify a startup construction area where no tortoises currently reside.

Temporary tortoise exclusion fencing around the perimeter of the startup construction area is to be installed following issuance of all Project permits, in the August, 2008 timeframe. Similar fencing would be installed along the access route at this time, in a manner not requiring tortoise handling/burrow excavation.

The temporary fence-enclosed startup construction area would be re-surveyed with two clearance passes prior to ensuing work activities, to ensure that no tortoises were present in planned surface disturbance areas. Fencing of the remaining portion of the power plant site and two primary staging areas would occur in late September or early October 2008, when ambient temperatures would be suitable for tortoise translocation. This fencing would be followed by two tortoise clearance survey passes and subsequent tortoise translocation.

4.6 Translocation Site Considerations and Options

An anticipated two to five desert tortoises are to be moved from the VV2 Project to an approved translocation site within the western Mojave Desert range (Figure 8; modified from BLM 2005), preferably into a Desert Wildlife Management Area (DWMA).

Several interlinking factors must be considered in selecting an appropriate translocation area for healthy tortoises. Primary considerations include habitat suitability for translocated tortoises, land availability/cost and relative land acquisition ease/timeliness. Secondarily, protection of translocated tortoises and long-term habitat manageability must be assured; such that location of large habitat blocks situated away from recreational and residential impact zones (Figure 9; modified from BLM 2005) offer the highest degree of translocation site manageability.

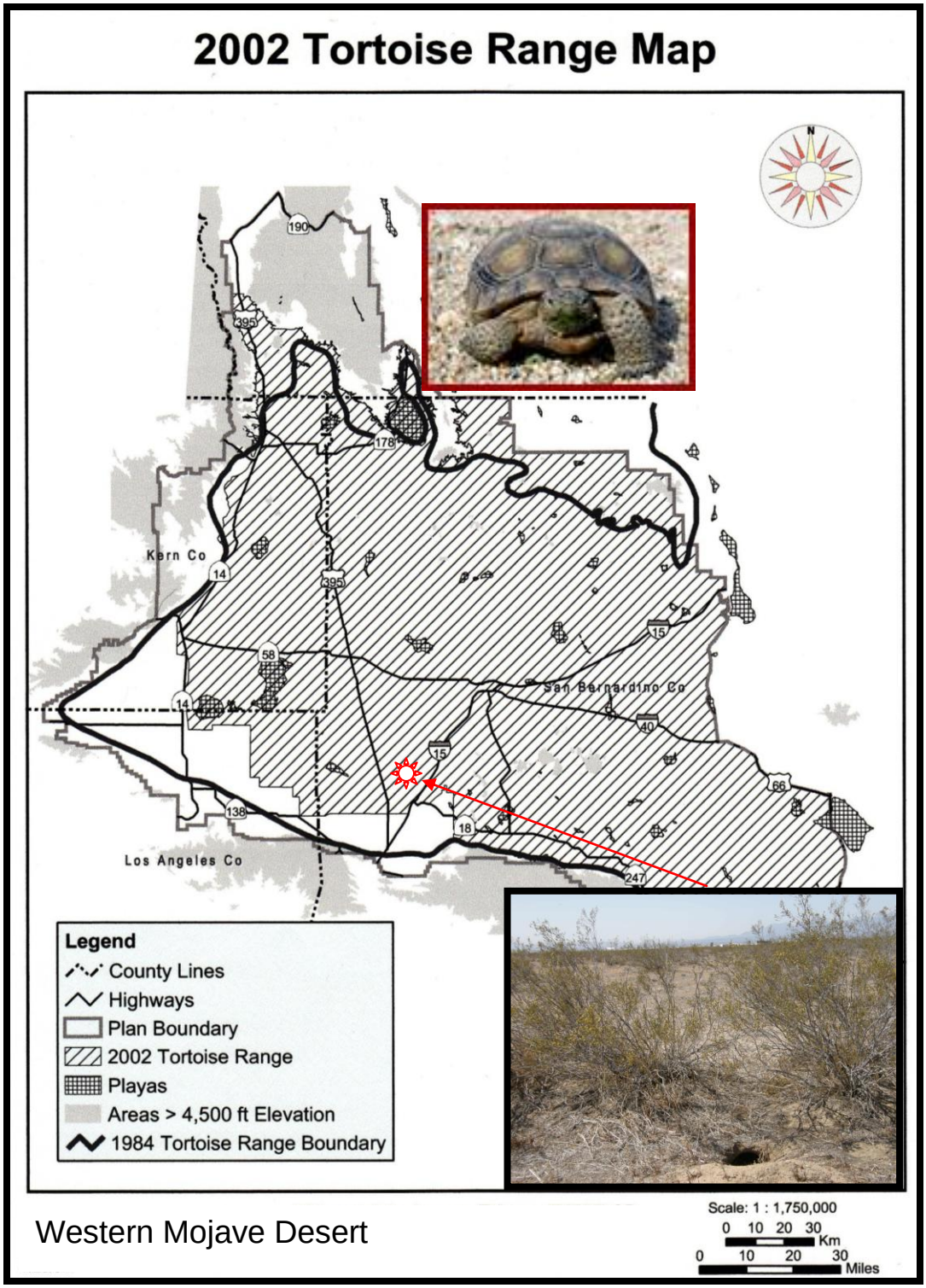


Figure 8. VV2 Project area (approximate) and the western Mojave Desert range of desert tortoise (*Gopherus agassizii*) in 2002. Map modified from BLM (2005); photo courtesy Bureau of Land Management.

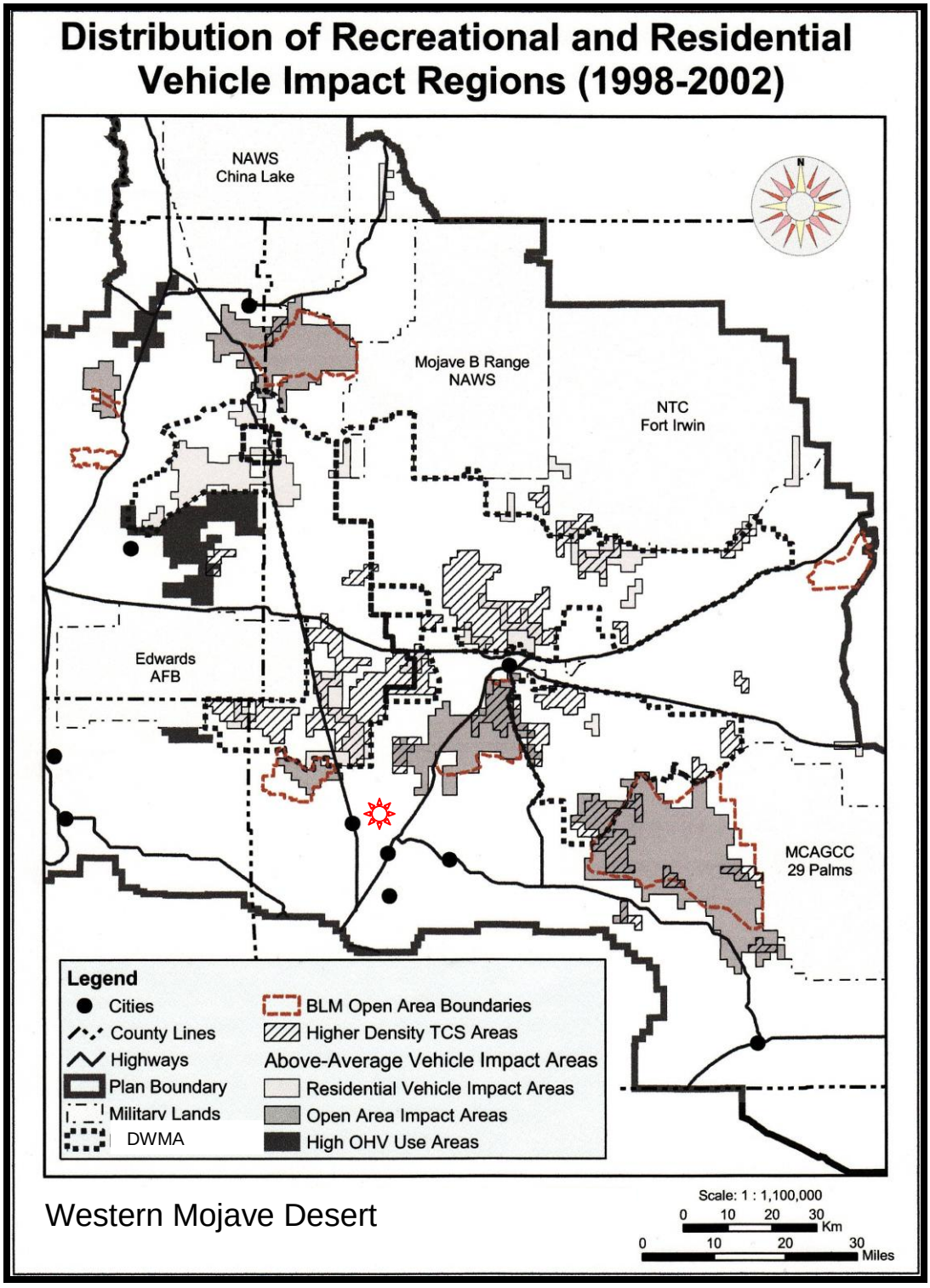


Figure 9. VV2 Project ☼ (approximate), vehicle impact areas recorded for 1998-2002 and higher density total corrected sign (TCS) areas of desert tortoise (*Gopherus agassizii*) habitat. Map modified from BLM (2005).

Inclusion of translocation site acreage as a subset of the 1,315.5 acres of compensation lands to be acquired for the Project may be beneficial in terms of minimizing additional agency approvals and quickly finalizing translocation acreage needs. However, securing public land use approvals for translocation apart from compensatory habitat requirement fulfillment; or acquiring a small property specific for translocation site separate from other compensation lands, allows greater flexibility with regard to lands available for purchase.

If private lands are acquired for translocation purposes, selected lands ideally would be located within Mohave ground squirrel (*Spermophilus mohavensis*) historic range (Figure 10; modified from BLM 2005), as compensatory habitat for this species is required for the VV2 Project. Acquisition of lands supporting high "total corrected sign" or "TCS", i.e., high use, tortoise habitat within or adjacent to known Mohave ground squirrel populations (Figure 11; modified from Leitner 2008) would maximize conservation benefits of compensation land acquisition for both species.

Ideal translocation lands would include suitable habitat as described above that encompasses the home range of tortoises affected by the Project. However, private lands situated in proximity face considerable future development pressure (Figure 12) and the few public lands situated proximal to the Project are subject to disposal under a Land Tenure Adjustment (LTA) program (Figure 13; modified from BLM 2005).

A translocation site outside of tortoise critical habitat (Figure 14; modified from CDFG 2007) is recommended per desert tortoise recovery plan (USFWS 1994) guidelines (Appendix 2). However, this guideline should not be considered an absolute constraint where a small number of tortoises is involved (pers. comm. R. Bransfield, USFWS, 2008); particularly if such a land acquisition acts to consolidate large blocks of habitat. Translocation into lands within the county of Project impact is recommended (pers. comm. T. Moore, CDFG, 2008) as is placement within a nearby DWMA (BLM 2005).

Translocation into a habitat similar in quality to the animal's original home range may maximize survivorship. Translocation into a population comprised of perceived similar genetics (Murphy et al. 2007), i.e. southwest of a Rand Mountains-Fremont Peak-Harper Lake meridian, is also advisable (pers. comm. Dr. K.H. Berry, USGS 2008).

Figure 10. VV2 Project ☼ (approximate) in relation to the historic range of the Mohave ground squirrel (*Spermophilus mohavensis)*. Map modified from Leitner (2008); photo courtesy Desert Tortoise Preserve Committee.

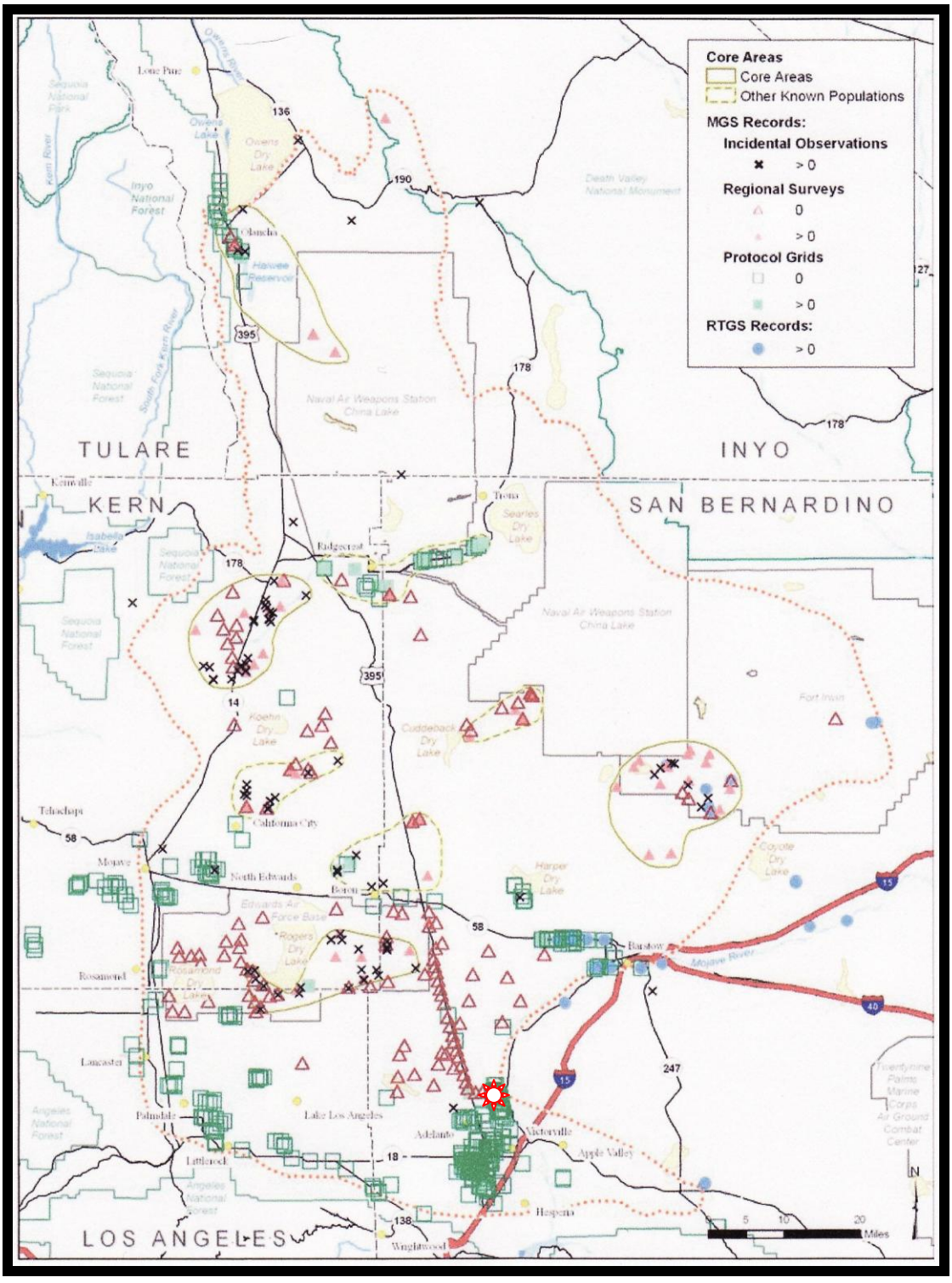


Figure 11. VV2 Project area (approximate) in relation to populations of the Mohave ground squirrel (*Spermophilus mohavensis)*. Map modified from Leitner (2008).

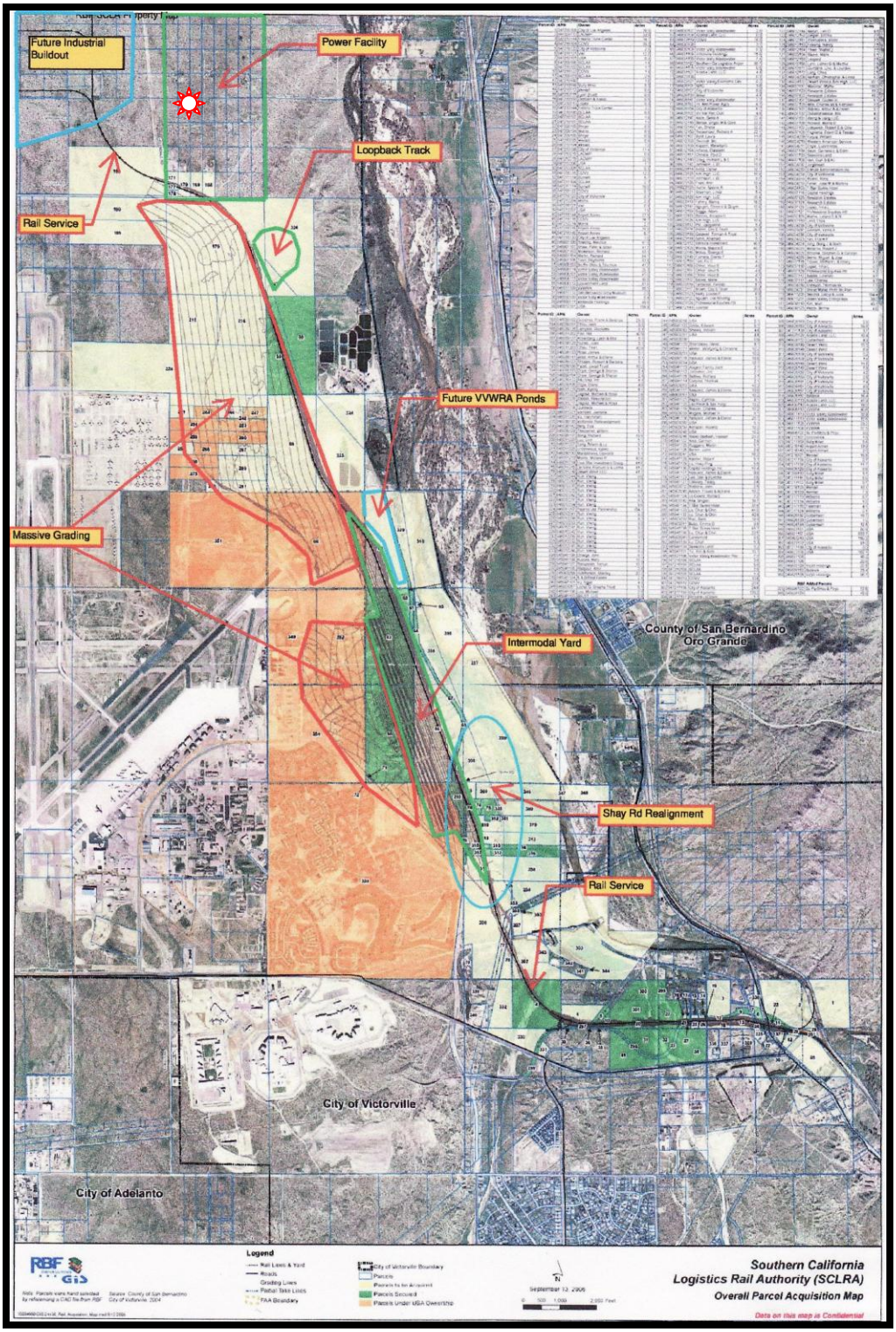


Figure 12. VV2 Project area (approximate) in relation to anticipated proximal development. Map modified from RBF Consulting (2004).

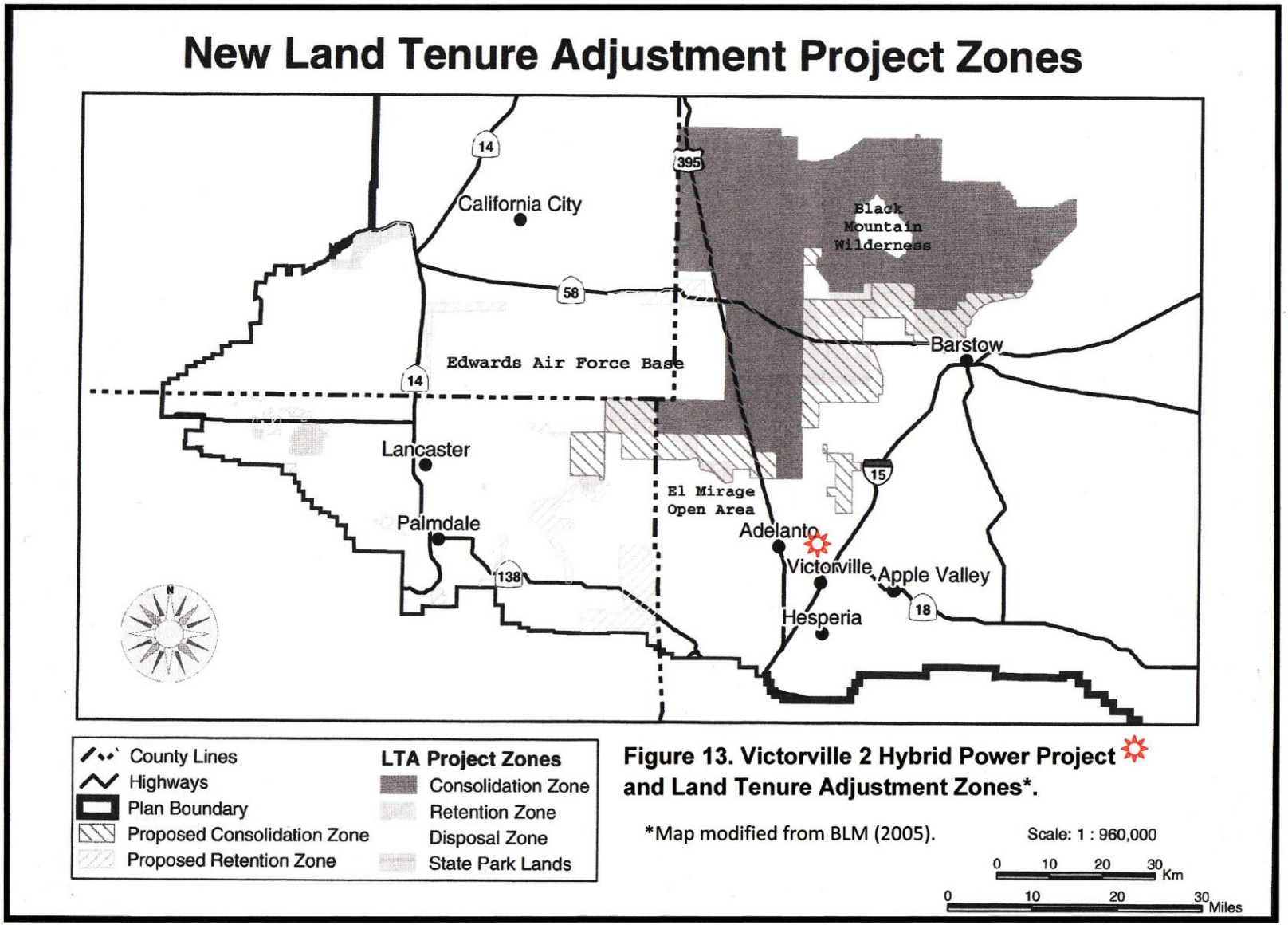


Figure 13. Victorville 2 Hybrid Power Project and Land Tenure Adjustment Zones*.

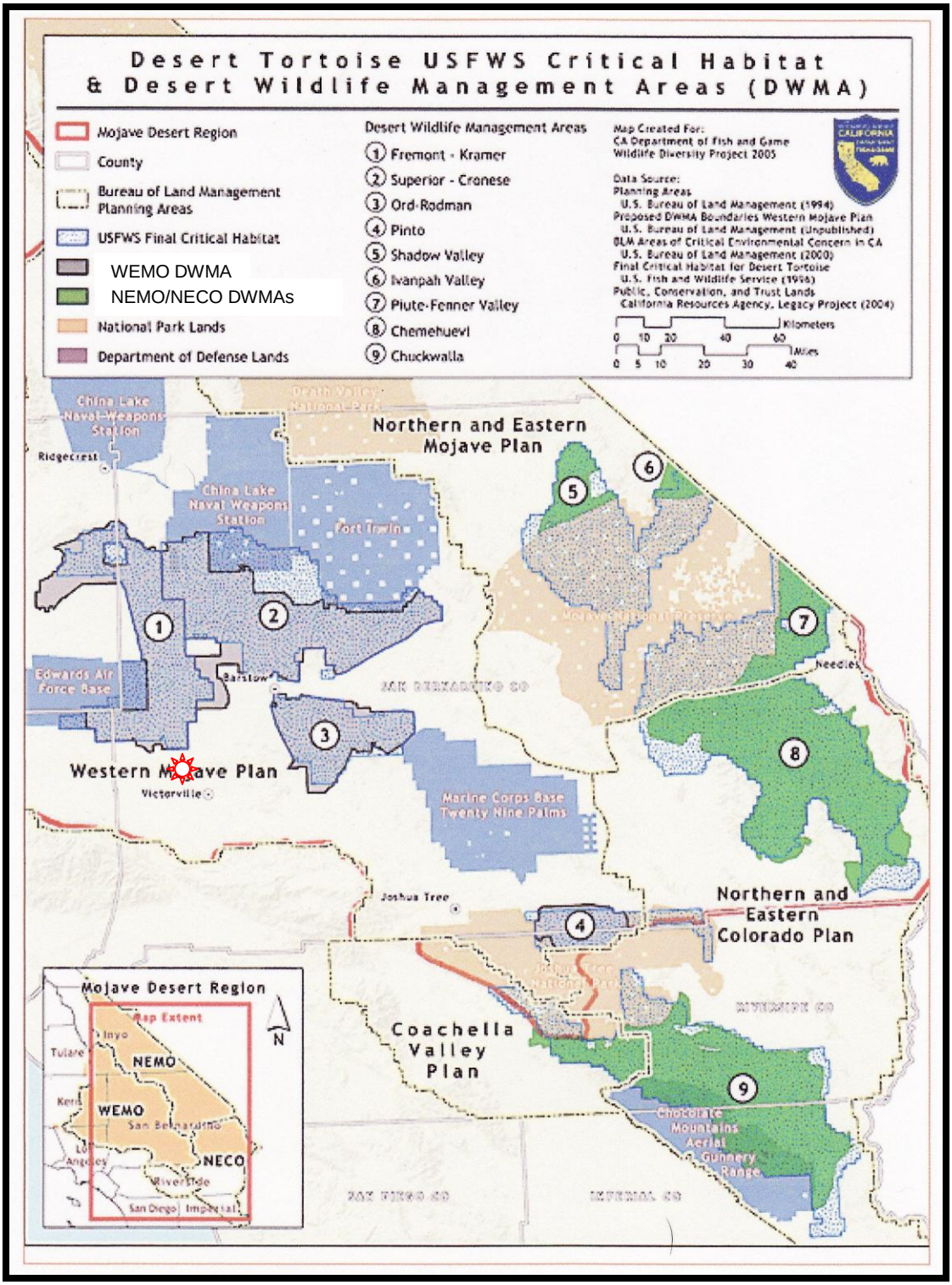


Figure 14. VV2 Project ☼ (approximate) in relation to desert tortoise (*Gopherus agassizii*) critical habitat and the West Mojave (WEMO) Desert Wildlife Management Area (DWMA). Map modified from CDFG (2007).

In light of the above considerations, several translocation site locality options of varying habitat characteristics and conservation planning status have been identified for placement of healthy tortoises to be translocated from the VV2 Project (Figure 15, modified from BLM 2005; Table 2; and Appendix 3):

1. Proximal private lands south of Shadow Mountain Road, east of U.S. Highway 395, and outside (south of) desert tortoise critical habitat;
2. Proximal private lands north of Shadow Mountain Road, east of State Highway 395 and within desert tortoise critical habitat;
3. Proximal private lands south of State Highway 58, east of U.S. Highway 395, in the Kramer Hills region and within desert tortoise critical habitat;
4. Proximal private lands north and south of Shadow Mountain Road, west of U.S. Highway 395, and within desert tortoise critical habitat;
5. Proximal private lands in the northern El Mirage Valley area, west of Shadow Mountain Road and outside (west of) desert tortoise critical habitat;
6. Private lands north of State Highway 58, west of U.S. Highway 395 and within Kern County, and outside (west of) desert tortoise critical habitat;
7. Private lands north of State Highway 58 and Kramer Junction, east of U.S. Highway 395, and within desert tortoise critical habitat;
8. Certain approved CDFG-managed reserve lands situated southwest of a Rand Mountains-Fremont Peak-Harper Lake meridian, within or outside of desert tortoise critical habitat; and
9. Certain approved BLM-managed public lands within the LTA retention or consolidation zones (Figure 13), southwest of a Rand Mountains-Harper Lake meridian and within or outside desert tortoise critical habitat.

Two additional tortoise habitat localities are also depicted in Figure 15 as compensatory habitat options, which together with any private translocation acreage selected, could be used to fulfill Project requirements:

A. Private lands in the Desert Tortoise Natural Area, within Kern County; and
B. Private lands situated northeast of Black Mountain and southwest of Fort Irwin National Training Center, within San Bernardino County.

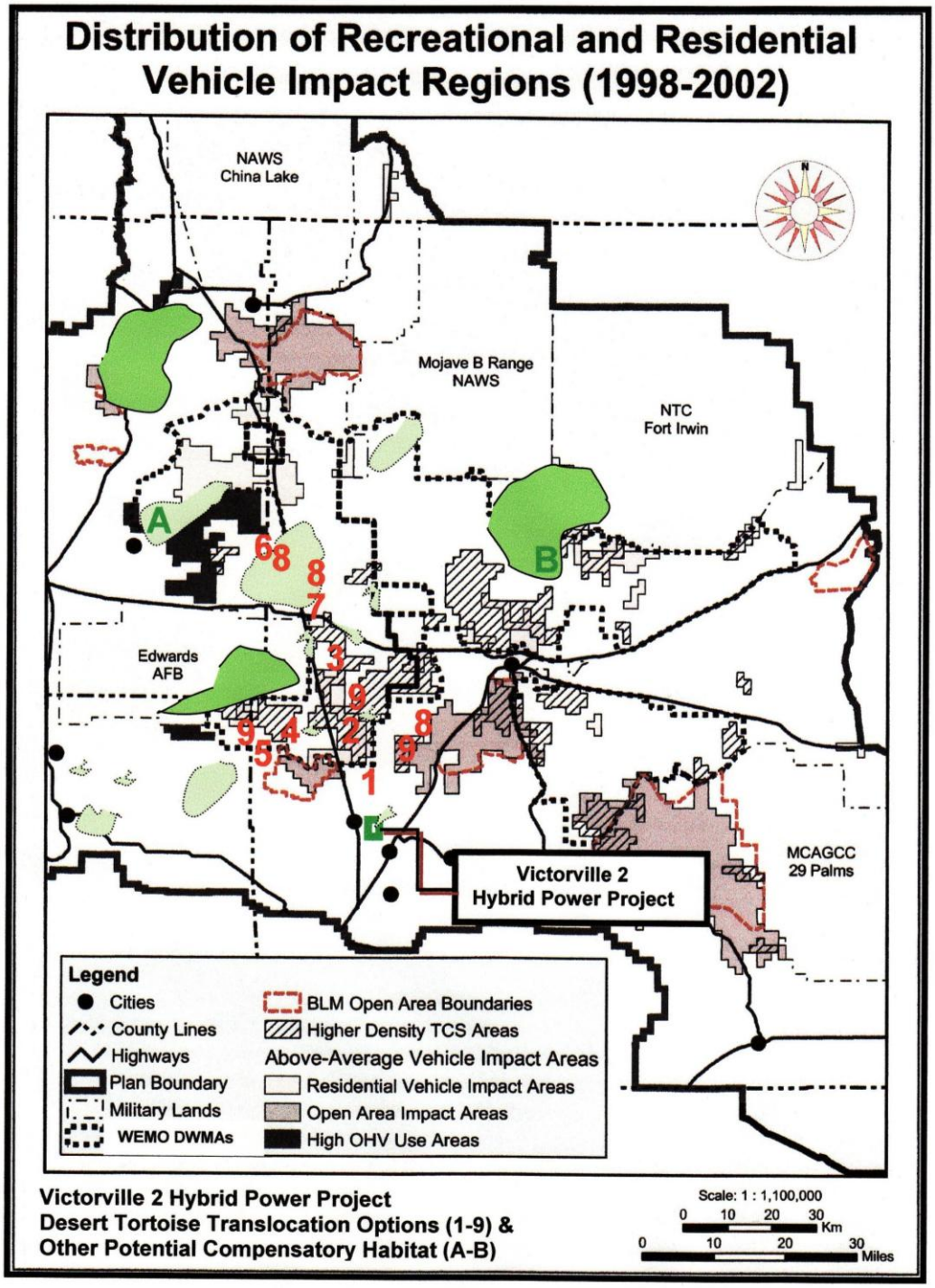


Figure 15. Map of proposed desert tortoise (*Gopherus agassizii*) translocation site options and other potential compensatory habitat relative to Desert Wildlife Management Areas, as well as suggested Mohave ground squirrel (*Spermophilus mohavensis*) "core" and other population areas. Map modified from BLM (2005) with map data from LaRue (2002) and Leitner (2008).

Table 2. Victorville 2 Hybrid Power Project
Desert Tortoise (DT) Translocation Options (1-9) and Other Potential Compensatory Habitat (A-B)

Resource Considerations	VV2 Project Site	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6	Option 7	Option 8	Option 9	A	B
DT Critical Habitat	No	No	Yes	Yes	Yes	No	No	Yes	Varies	Yes	No	Yes
High DT Sign Area	No	No	Yes	Yes	Yes	No	No	No	Varies	Yes	No	Yes
DT Genetics Likely Similar to VV2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Desert Wildlife Management Area	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Varies	Yes	Yes	Yes
Mohave Ground Squirrel (MGS) "Core" Population	No	No	No	No	No	No	No	No	No	No	No	Yes
Recorded MGS Population	Yes	No	No	No	No	No	Yes	Yes	Varies	Varies	Yes	No
Relative Shrub Diversity	Low-Moderate	Low-Moderate	Moderate	High	High	Low	Moderate	Low	Varies	Varies	Moderate-High	High
Relative Soil Friability	High	Moderate	Moderate	High	Moderate	High	Moderate	Low	Varies	Varies	High	High
Potentially Available Property	-	Yes (160 acres)	Yes (160 acres)	Yes (1,280 acres)	Yes (640 acres)	Yes (170 acres)	Yes (640 acres)	Yes (300 acres)	Unknown	Unknown	Yes (1,280 acres)	Unknown
Wash on Property	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Varies	Varies	Yes	-
Acreage & Total Property Cost ($)	-	$25,000/acre ($4,000,000)	$8,000/acre ($1,280,000)	$5,000/acre ($6,400,000)	$5,500/acre ($3,520,000)	$3,500/acre ($595,000)	$3,000/acre ($1,920,000)	$12,000/acre ($3,600.000)	Translocation Only (CDFG)	Translocation Only (BLM)	$4,000/acre ($5,120,000)	-

Considerations in selecting a private land translocation site involve the time necessary to secure title to lands and the relative complexity of this task. Similarly, the time needed to fulfill BLM permitting requirements associated with the potential use of public land for translocation purposes or coordination tasks necessary for use of military lands are factors to be considered in selecting one of the translocation site options. The time and complexity of acquiring title to private lands, completing management agreements, and coordinating with various agencies can be considerable. Lands selected for translocation purposes must also be acquired and prepared prior to September, 2008.

Most importantly, the selected translocation area must support sufficient habitat to support the number of translocated tortoises that will use it. This consideration is dependent on the characteristics of the recipient tortoise population, the number and sex of animals to be translocated and the habitat quality of the translocation area. Recent two-year telemetry studies in the western Mojave Desert (Harless et al. 2007) using the minimum convex polygon and fixed kernel (i.e., a statistical approach to measuring home range size) home range estimators have estimated the average home range for males at 45 ha (111 acres) and at 16 ha (39 acres) for females [N = 35; 20 males and 15 females].

Another similar telemetry study (Berry et al. 2007) using a kernel estimator (95% mean size) estimated the average home range for males at 39.8 ha (98 acres) [SD=28.3 ha (70 acres)] and at 9.4 ha (23 acres) [SD=6.6 ha (16 acres)] for females [N = 27; 16 males and 11 females]. Only small portions of home ranges for some alpha males overlapped and core portions of their ranges were found to be isolated from each other. This study also found female tortoise core areas to be separated from each other; and core areas for both sexes to vary by season (Berry et al. 2007).

As the translocation of two or more desert tortoises is anticipated from the VV2 Project's permanent disturbance area, access to 100 acres or more may be preferable in providing an optimum home range habitat base for one male tortoise and perhaps a secondary female or male tortoise. A smaller acreage base however, may very well provide adequate habitat for a small number of translocated tortoises, especially if these lands contain high quality habitat and are situated adjacent to other suitable habitat.

An onsite contingency holding area (Figure 16) has been identified for the VV2 Project's translocation program. This block of occupied tortoise habitat would be used as a short-term holding area for healthy tortoises found in the remainder of the Project's power plant and primary staging (laydown) areas, should securing the final translocation area not be completed by September, 2008. This contingency area would encompass no more than 100 acres of suitable habitat and would be enclosed with temporary fencing to maximize tortoise protection capability. A 15 by 15 foot protective enclosure would be constructed in a portion of this area to protect any juvenile tortoises found during clearance surveys, while blood samples are analyzed, prior to translocation.

4.7 Translocation Site Management

Private lands acquired for translocation purposes would be managed over the long-term for the explicit purpose of tortoise and other special status species survival and benefit, per a site-specific management plan to be approved by the CDFG. An appropriate monetary endowment for translocation site management will also be secured to ensure management plan components are implemented. A property title transfer to CDFG may also be required where private lands are acquired for translocation purposes.

Completion of a public land lease per BLM realty provisions and/or development of a Memorandum of Understanding with a local BLM field office would be necessary to utilize public lands managed by BLM for translocation purposes. Public land status under the recently adopted LTA program (BLM 2005), i.e., lands identified or retention or disposal, as well as their Multiple Use Classification (Limited, Moderate or Unclassified), would be primary considerations in such an endeavor. Approval by BLM's California State Office is also required for any public land wildlife translocation.

Site-specific National Environmental Policy Act (NEPA) documentation would likely be required for any considered translocation action involving public lands. The BLM's multiple-use mandate would be applicable and potential translocation site management needs would need to be considered and implemented in this context. BLM's West Mojave Plan (2005) has outlined long-term conservation objectives for desert tortoise and MGS, which would be applicable to translocation site management.

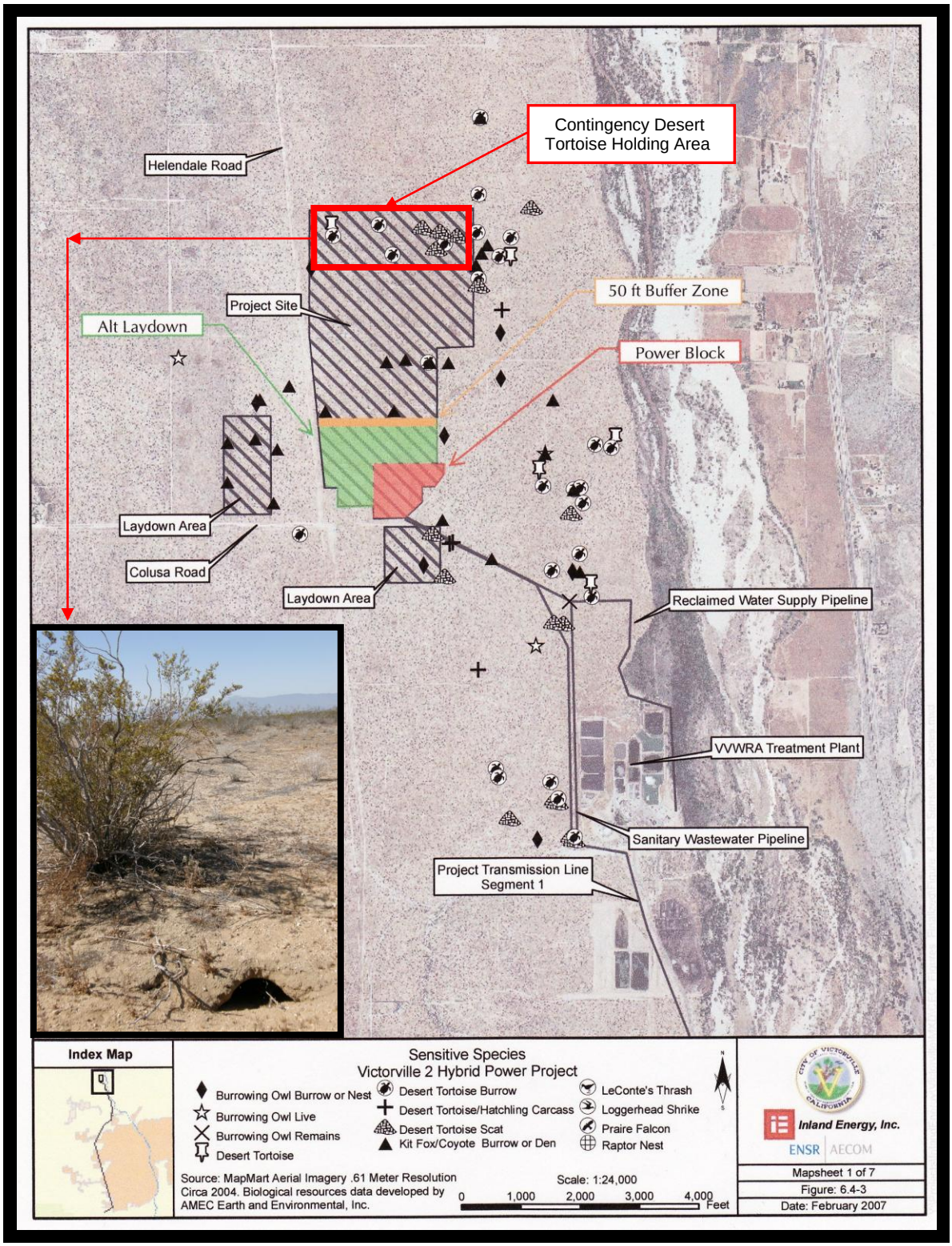


Figure 16. Onsite contingency holding area identified for the VV2 Project's Desert Tortoise Translocation Program.

4.8 Translocation Site Preparation

Once the translocation area is approved and acquired, a site characterization should be completed prior to moving tortoises onto the property. All tortoise sign occurring onsite and in the immediate (0.25 mile) zone of influence should be mapped and fully described. Fencing needs and other potential anthropogenic impact considerations should also be assessed at this time.

At least two artificially-created burrows of approximately four to six feet-length should be prepared at the selected translocation site for each desert tortoise to be moved, using a gas-powered auger, prior to animal relocation. Concurrent with tortoise capture at the VV2 clearance area, surface soil and scat from each individual tortoise's capture burrow should be placed in the artificial burrow to which a tortoise will be introduced, to assist with acclimation (Karl and Resource Design Technology 2006).

Juvenile tortoises are more subject to depredation than are adults and should be provided with extended protection from predators if any are moved as part of the VV2 Project. Optimal protection can be facilitated through installation of a predator-proof enclosure.

The size of the enclosure will depend on the number of tortoises found, but could start at 20 feet in diameter and be extended to approximately 50 feet if more than three juvenile tortoises are contained. After these juvenile tortoises, if any, have become familiar with the site's odors and landmarks for two weeks, escape holes in the lower edge of the enclosure can be constructed (Morafka et al. 1997). Following juvenile tortoise departure, all enclosure material would be removed from the translocation site.

Closely monitoring tortoise movements immediately after translocation may facilitate the identification of potential problems at the selected site. Any management issues identified through this initial monitoring should be addressed in a timely fashion. Once tortoises have acclimated and established a home range at the translocation site, movement away from this use area is anticipated to be minimal. At the Hyundai Desert Tortoise Translocation Study Site, two of 14 translocated tortoises moved 400 meters away from the fenced translocation site within 16 months of fence removal (Karl 2007).

4.9 Animal Monitoring and Reporting

Monitoring of translocated tortoises will provide useful information for future translocation actions. This monitoring will be conducted by qualified personnel using telemetry and casual observation. Translocated animals will be monitored for one day/month between September 2008 and September 2009, after which transmitters will be removed.

The focus of this monitoring effort would be to observe how translocated tortoises respond to their new habitat, as well as to record survivorship. Another primary emphasis of monitoring would be to ensure translocation site management issues are identified and rectified quickly. Monitoring observations would be reported to state and federal regulatory agencies on a monthly basis; or more frequently if warranted.

Information on animal movements, habitat use, behavioral interactions and survival would be recorded throughout the course of this monitoring effort. Overall health and movements of translocated tortoises would be tracked over the identified year-length telemetry period, based on health indices assessed at the point of capture. While collected monitoring information may be largely anecdotal in nature without a rigorous study design and replication, such data can be analyzed in a manner designed to formulate prescriptions for future translocations involving small numbers of tortoises.

Monthly reports would include an analysis of all pertinent desert tortoise health and habitat use observations, data on animal movements recorded from telemetry study, as well as any issues encountered in translocation property management. The Project's final translocation monitoring report would include recommendations on how to improve techniques and conservation property management to enhance translocation success.

4.10 Biological Opinion Terms and Conditions

To be exempt from the prohibitions of ESA Section 9, the City of Victorville must comply with the following terms and conditions, which implement the reasonable and prudent measures described in the "*Biological Opinion for the Victorville 2 Hybrid Power Project, San Bernardino County, California*" (USFWS 2008):

1. The city of Victorville must ensure that only biologists authorized by the Service [USFWS] under the auspices of this biological opinion conduct surveys for and translocate desert tortoises. We request that you provide us with the credentials of authorized biologists or biological monitors who you wish to conduct these duties at least 30 days prior to the time they must be in the field.

2. (a)To ensure that the measures proposed by the City of Victorville are effective and are being properly implemented, the City of Victorville or its agent must contact the Service immediately if it becomes aware that a desert tortoise has been killed or injured by project activities.

   At that time, the Service and the Environmental Protection Agency and its agent must review the circumstances surrounding the incident to determine whether additional protective measures are required. Project activities may continue pending the outcome of the review, provided that the proposed protective measures and any appropriate terms and conditions of this biological pinion have been and continue to be fully implemented.

   (b) The Environmental Protection Agency must immediately re-initiate formal consultation with the Service, pursuant to section 7(a)(2) of the Endangered Species Act, if 3 desert tortoises are killed or injured by project activities within the action area.

3. The Environmental Protection Agency must ensure that the City of Victorville does not commence ground-disturbing activities until the Service has provided written approval of the translocation plan. The translocation plan must thoroughly address the following elements:

   i. The survey methods that will be used to find and remove desert tortoises from the power plant site and staging areas;

   ii. A protocol for holding and transporting desert tortoises from the project site to the translocation area;

iii. A description of the translocation area and proof that the land owner has agreed to receive the translocated desert tortoises;

iv. A protocol for monitoring the status of the translocated desert tortoises, including the frequency with which they will be checked, the length of time they will be monitored after translocation, and a method of marking them so they can be identified permanently;

v. A protocol for testing for disease and a strategy for dealing with clinically ill and seropositive animals; and

vi. A contingency plan and list of contacts in the event unforeseen circumstances arise.

5.0 ENVIRONMENTAL CONSEQUENCES OF THE TRANSLOCATION PROGRAM

Little environmental impact is anticipated as a consequence of the VV2 Translocation Program. The selected translocation site would support suitable tortoise habitat, including appropriate cover-site locations and forage. All considered translocation sites are also within the same perceived genetic unit (Murphy et al. 2007) as tortoises residing in the VV2 Project area. Existing roads would be used to transport tortoises to the selected translocation site. No special resources, sensitive habitats or unique vegetation types would be disturbed in any aspect of translocation site preparation, including artificial/nest burrow installation and juvenile tortoise release pen construction.

Current desert tortoise densities throughout the western Mojave Desert are considered lower than historic numbers (USFWS1994). The addition of two to five tortoises at an appropriately suitable translocation site in this region is unlikely to adversely affect the ecological “carrying capacity” of the selected translocation site. Tortoises are known to disperse and expand their home ranges in the wild, such that any disruption of existing tortoise social hierarchies at the selected translocation site also would likely be minimal with the small number of introduced tortoises.

Further, translocated tortoises in the VV2 Translocation Program are anticipated to contribute to the breeding population of tortoises occurring at the selected translocation site, thus implementing a recovery plan (USFWS 1994) action.

As indicated in Section 4.4 above, all tortoises to be translocated per this Program will be tested for disease prior to translocation. No clinically ill or seropositive tortoises will be translocated. Therefore, there will be no potential for the introduction of diseased tortoises into the selected translocation site.

Every effort will be made to coordinate closely with identified agency representatives on all aspects of translocation, should use of BLM-managed public land, or wildlife reserves managed by the CDFG, be approved. Strict adherence to all agency-issued site use stipulations would also be required with use of either of these translocation options.

6.0 CONTINGENCY PLANNING AND PROGRAM CONTACTS

In the event unforeseen circumstances arise relative to the VV2 Translocation Program, the BRMIMP, or any CEC Condition of Certification, the CEC's Compliance Project Manager (CPM) for the VV2 Project, the CEC's Project Manager or the CEC Siting Office Manager will be notified by the VV2 Project's Designated Biologist to resolve the issue or determine a subsequent course of action.

Where these circumstances may involve specific reporting details, clarifications or questions related to complying with Biological Opinion Terms and Conditions, the EPA's San Francisco Office and the USFWS Ventura Field Office will be contacted by either the CPM or the VV2 Designated Biologist.

Similarly, where CESA Section 2081 incidental take permit condition issues, clarifications or reporting may be involved, CDFG Region 6 representatives and/or staff in the CDFG's Los Alamitos Administrative Office should be contacted by either the CPM or the VV2 Designated Biologist.

Peter Soderquist, Airport Director, should also be contacted in the event of unforeseen circumstances associated with the Southern California Logistics Airport. General Manager Logan Olds should be contacted for issues associated with the Victor Valley Wastewater Reclamation Authority's treatment plant at 20111 Shay Road.

In the case of public land use conflicts and/or biological issues, Dr. Larry LaPre, California Desert District Biologist, should be contacted. For issues pertaining specifically to the City of Victorville or area road projects, City Manager Jon Roberts should be notified.

For information about VV2 facility design, Tom Barnett, Executive Vice President and/or Tony Penna, Vice President Development, of Inland Energy Inc. should be contacted. For information regarding preparation of this Translocation Plan, Senior Ecologist Tom Egan of AMEC Earth and Environmental, Inc. and/or Dr. Alice Karl should be contacted.

City of Victorville

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7.0 LITERATURE CITED

AMEC. 2007. Victorville 2 hybrid power project biological assessment. Document prepared for the City of Victorville and the Environmental Protection Agency in support of state and federal Endangered Species Act consultation requirements. AMEC Job # 6554000228.

AMEC. 2008. Victorville 2 hybrid power project biological assessment addendum. Document prepared for the City of Victorville and the Environmental Protection Agency in support of state and federal Endangered Species Act consultation requirements. AMEC Job # 6554000228.

Berry, K.H. 1986. Desert tortoise (*Gopherus agassizii*) relocation: implications of social behavior and movements. Herpetologica 42:113-125.

Berry, K.H. and M.M. Christopher. 2001. Guidelines for the field valuation of desert tortoise health and disease. Journal of Wildlife Diseases 37:427-450.

Berry, K.H., K. Anderson, and J. Mack. 2007. Dominance, gender, cover-sites and season: important factors in desert tortoise home range shape and size. Abstract. Page 4 *in* Proceedings of the 2007 (32nd Annual) Desert Tortoise Council Symposium, Las Vegas, Nevada.

Boarman, W.I., T. Goodlett, and P. Hamilton. 1998. Review of radio transmitter attachment techniques for turtle research and recommendations for improvement. Herpetological Review 29:26-33.

Brown, D.R., I.M. Schumacher, G.S. McLaughlin, L.D. Wendland, M.B. Brown, P.A. Klein, and E.R. Jacobson. 2003. Application of diagnostic tests for mycoplasmal infections of desert and gopher tortoises with management recommendations. Chelonian Conservation Biology 4(2):497-507.

Brown, M.B. 2003. Disinfection protocol. Unpublished report prepared for use at the University of Florida Mycoplasma research laboratory.

Bureau of Land Management (BLM). 1997. California Desert District Cuddeback Lake. Special Edition Surface Management Status Desert Access Guide. U.S. Department of the Interior, Bureau of Land Management, Sacramento, California.

Bureau of Land Management (BLM). 1998. California Desert District Victorville. Special Edition Surface Management Status Desert Access Guide. U.S. Department of the Interior, Bureau of Land Management, Sacramento, California.

Bureau of Land Management (BLM). 2005. Final environmental impact report and statement for the West Mojave plan, a habitat conservation plan and California Desert Conservation Area plan amendment. Volume 1A. U.S. Department of the Interior, Bureau of Land Management, California Desert District, Moreno Valley, California.

California Department of Fish and Game (CDFG). 2007. Desert tortoise USFWS critical habitat & desert wildlife management areas (DWMA). Page 104 in California wildlife: conservation challenges. California wildlife action plan prepared by the University of California Davis Wildlife Health Center and CDFG. 1416 Ninth Street, Sacramento, California. 597 pp.

California Energy Commission (CEC). 2008. Final staff assessment Victorville 2 hybrid power project application for certification (07-AFC-1) San Bernardino County. Staff report prepared March 19, 2008. CEC, Sacramento, CA.

Cook, J.C. 1983. Rehabilitation of the desert tortoise *Gopherus agassizii*. M.S. Thesis, California State Polytechnic Univ., Pomona. 54 pp.

Christopher, M.M., K.H. Berry, B.T. Henen, and K.A. Nagy. 2002. Clinical disease and laboratory abnormalities in free-ranging desert tortoises (*Gopherus agassizii*) in California (1990-1995). Abstract. Pp. 51-52 *in* A. McLuckie (ed.) Proceedings of the 2002 (25th Annual) Desert Tortoise Council Symposium, Palm Springs, California.

Christopher, M.M., K.H. Berry, B.T. Henen, and K.A. Nagy. 2003. Clinical disease and laboratory abnormalities in free-ranging desert tortoises in California (1990-1995). Journal of Wildlife Diseases 39:35-56.

Desert Tortoise Council. 1994 (rev. 1999). Guidelines for handling desert tortoises during construction projects. E.L. LaRue, Jr. (ed.) Wrightwood, CA. Unpublished report. 19 pp.

Esque, T.E., K.E. Nussear and P.A. Medica. 2005. Desert Tortoise Translocation Plan for Fort Irwin's Land Expansion Program at the U.S. Army National Training Center (NTC) & Fort Irwin. Report prepared for the U.S. Army National Training Center, Directorate of public Works by the Un.S. Geological Survey, Western Ecological Research Center, Las Vegas Field Office, Nevada. 122 pp.

Field, K.J. 1999. Translocation as a conservation tool applied to the desert tortoise: effects of the pre-release availability of water. Master's Thesis. University of Nevada, Reno.

Field, K.J., C.R. Tracy, P.A. Medica, R.W. Marlow and P.S. Corn. 2003. Spring, fall, or winter? Success of desert tortoise translocation as affected by season of release. Abstract. Pp. 107-108 *in* Proceedings of the 2003 (28th Annual) Desert Tortoise Council Symposium, Las Vegas, Nevada.

Field, K.J., C.R. Tracy, P.A. Medica, R.W. Marlow and P.S. Corn. 2007. Return to the wild: translocation as a tool in conservation of the desert tortoise (*Gopherus agassizii*).Biological Conservation Vol. 136, Issue 2:232-245.

Harless, M.L., A.D. Walde, D.K. Delaney, L.L. Pater, and W.K. Hayes. 2007. The effect of sampling effort on home range estimates of desert tortoises from the west Mojave Desert. Abstract. Page 18 *in* Proceedings of the 2007 (32nd Annual) Desert Tortoise Council Symposium, Las Vegas, Nevada.

Jacobson, E.R., and K.H. Berry. 2004. Necropsies of six desert tortoises (Gopherus agassizii) from California. Abstract *in* Proceedings of the 2004 (29th Annual) Desert Tortoise Council Symposium, Las Vegas, Nevada.

Karl, A.E. 1998. Reproductive strategies, growth patterns, and survivorship of a long-lived herbivore inhabiting a temporally variable environment. Ph.D. Dissertation. Univ. of California, Davis. 178 pp.

Karl, A. E. 2003. Hyundai Motor America Mojave Test Track Site. Desert tortoise translocation program. Appendix A *in* Sapphos Environmental, Inc. 2003. Environmental assessment/habitat conservation plan for issuance of an Endangered Species Section 10(a)1(B) Permit for the incidental take of the desert tortoise (*Gopherus agassizii*). Unpublished report prepared for the U.S. Department of the Interior, Fish and Wildlife Service, Hyundai Motor America and The City of California City.

Karl, A.E. and Resource Design Technology. 2006. Desert tortoise translocation study. Mesquite Regional Landfill . Submitted to the Los Angeles County Sanitation Districts, Whittier, California and the U.S. Department of the Interior, Fish and Wildlife Service, Carlsbad, California. 8 pp.

Karl, A.E. 2007 Hyundai Motor America Mojave Proving Grounds Desert Tortoise Translocation Study; 2006 annual summary. Submitted by Hyundai America Technical Center, Inc., to the U.S. Department of the Interior, Fish and Wildlife Service, Ventura, CA. 17pp.

LaRue, E. 2002. Mohave ground squirrel range & habitat study sites. Unpublished planning map incorporating California Natural Diversity Database and other data, prepared for the West Mojave Plan; a habitat conservation plan and California Desert Conservation Area plan amendment. On file, U.S. Department of the Interior, Bureau of Land Management, California Desert District, Moreno Valley, California.

Leitner, P. 2008. Current status of the Mohave ground squirrel (*Spermophilus mohavensis*) [Review Draft]. Unpublished report prepared for Tetra Tech, Inc., Lafayette, CA.

Lovich, J.E. and D. Bainbridge. 1999. Anthropogenic degradation of the southern California desert ecosystem and prospects for natural recovery and restoration. Environmental Management. Vol. 24, No. 3, pp. 309-326.

Morafka, D.J., K.H. Berry, and E.K. Spangenberg. 1997. Predator-proof field enclosures for enhancing hatching success and survivorship of juvenile tortoises: a critical evaluation. Pp. 147-165 *in* the New York Turtle and Tortoise Society, Proceedings: Conservation, Restoration, and Management of Tortoises and Turtles – an International Conference.

Mullen, E.B. and P. Ross. 1997. Survival of relocated tortoises: feasibility of relocating tortoises as a successful mitigation tool. Pp. 140-146 *in* the New York Turtle and Tortoise Society, Proceedings: Conservation, Restoration, and Management of Tortoises and Turtles – an International Conference.

Murphy, R.W., K.H. Berry, T. Edwards and A.M. McLuckie. 2007. A genetic assessment of the recovery units for the Mojave population of the desert tortoise, *Gopherus agassizii*. Chelonian Conservation and Biology 2007 Volume 6(2):229-251.

Nussear, K.E., C.R. Tracy, P.A. Medica, R.M. Marlow, M.B. Saethre, and P.S. Corn. 2000. Translocation as a tool for conservation of the desert tortoise: Nevada studies. Abstract. Pp. 26-30 *in* Proceedings of the 2000 (25th Annual) Desert Tortoise Council Symposium, Las Vegas, Nevada.

Nussear, K.E., T.C. Esque, and C.R. Tracy. 2002. Continuously recording body temperature in terrestrial chelonians. Herpetological Review 33:113-114.

Origgi, F., C.H. Romero, P.A. Klein, K.H. Berry, and E.R. Jacobson. 2002. Serological and molecular evidences of herpesvirus exposure in desert tortoises from the Mojave Desert of California. Abstract. . Pp. 30-31 *in* Proceedings of the 2002 (27th Annual) Desert Tortoise Council Symposium, Palm Springs, California.

RBF Consulting. 2004. Southern California Logistics Airport specific plan amendment and rail service project. Draft subsequent program environmental impact report prepared for the City of Victorville, California. City of Victorville Planning Department, Victorville, California

Rostal, D.C. and V.A. Lance. 2003. The history of upper respiratory tract disease in the eastern Mojave Desert tortoise: observations from the Desert Tortoise Conservation Center, Las Vegas, Nevada. Abstract. Page 147 *in* Proceedings of the 2003 (28th Annual) Desert Tortoise Council Symposium, Las Vegas, Nevada.

Saethre, M.B., T. C. Esque, P.A. Medica, R. Marlow, and C.R. Tracy. 2003. Determining the carrying capacity of desert tortoises. Page 149 *in* Proceedings of the 2003 (28th Annual) Desert Tortoise Council Symposium, Las Vegas, Nevada.

Schumacher, I.M., M.B. Brown, E.R. Jacobson, B.R. Collins, and P.A. Klein. 1993. Detection of antibodies to a pathogenic Mycoplasma in desert tortoises (*Gopherus agassizii*) with upper respiratory tract disease. Journal of Clinical Microbiology 31(6):1454-1460.

Schumacher, I.M., D. B. Hardenbrook, M.B. Brown, E.R. Jacobson, and P.A. Klein. 1997. Relationship between clinical signs of upper respiratory tract disease and antibodies to *Mycoplasma agassizii* in desert tortoises from Nevada. Journal of Wildlife Diseases 33(2):261-266.

St. Amant, J.A. and F. Hoover. 1978. State report – California. Department of Fish and Game, Part II. Page 23 *in* Proceedings of the 1978 (3rd Annual) Desert Tortoise Council Symposium, Las Vegas, Nevada.

Stewart, G.R. 1993. Movements and survival of desert tortoises (*Gopherus agassizii*) following relocation from the Luz Solar Electric Plant at Kramer Junction. Pp. 234-261 *in* K. Beaman (ed.) Proceedings of the 1992 (17th Annual) Desert Tortoise Council Symposium, Las Vegas, Nevada.

Stewart, G.R. and R. Baxter. 1987. Final report and management plan for the desert tortoise (*Gopherus agassizii*) in the West and Sand Hill Training areas of the Twentynine Palms MCAGCC. Unpublished report prepared for the U.S. Dept. of the Navy. Contract N6247484RP00V48. 50 pp.

Tracy, C.R., K.E. Nussear, D.S. Wilson, K.J. Field, P.A. Medica, R.W. Marlow, M.B. Saethre, P.S. Corn, and E.T. Simandle. 2000. Translocation as a tool for conservation of the desert tortoise: is translocation a reasonable strategy for desert tortoises displaced by urban expansion? Page 36 *in* Proceedings of the 2000 (25th Annual) Desert Tortoise Council Symposium, Las Vegas, Nevada.

TRW. 1998. Efficacy of relocating desert tortoises for the Yucca Mountain Site Characterization Project. Unpublished report prepared for the U.S. Department of Energy, Office of Radioactive Waste Management, Washington, D.C. Contract No. B00000000-01717-5705-00032 REV 00.

United States Fish and Wildlife Service (USFWS). 1992. Field survey protocol for any non-federal action that may occur within the range of the desert tortoise. Ventura Field Office, USFWS, Ventura, California. 22 pp.

United States Fish and Wildlife Service (USFWS). 1994. Desert tortoise (Mojave population) recovery plan. USFWS, Portland, Oregon. 73 pp plus appendices.

United States Fish and Wildlife Service (USFWS). 2004. Biological opinion for the proposed addition of maneuver training lands at Fort Irwin, California. Biological Opinion # 1-8-03-F-48. USFWS, Portland, Oregon.

United States Fish and Wildlife Service (USFWS). 2008. Biological opinion for the Victorville 2 hybrid power project, San Bernardino County, California. Biological Opinion # 1-8-07-F-67. USFWS, Portland, Oregon.

United States Geological Survey (USGS). 1973. Astley Rancho, Calif. SW/4 Hawes 15 minute topographic quadrangle. USGS, Denver, CO.

United States Geological Survey (USGS). 1973. Kramer Hills, Calif. NW/4 Hawes 15 minute topographic quadrangle. USGS, Denver, CO.

United States Geological Survey (USGS). 1993. Shadow Mountains, Calif. 7.5 min. topographic quadrangle. USGS, Denver, CO.

United States Geological Survey (USGS). 1993. Victorville NW, Calif. 7.5 minute topographic quadrangle. USGS, Denver, CO.

University of Florida, Department of Pathobiology. No date. Serologic test for tortoise exposure to *Mycoplasma*. Unpub. Doc. 5 pp.

Wendland, Lori, DVM. 2001. Draft protocol for nasal lavage collection in tortoises. Unpub. Doc. From the University of Florida Mycoplasma Research Lab. 1pp.

STATE OF CALIFORNIA
ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

In the Matter of:	)	Docket No. 07-AFC-1
	)	
Application for Certification,	)	**ELECTRONIC PROOF OF SERVICE**
for the VICTORVILLE 2	)	**LIST**
HYBRID POWER PROJECT	)	
by the City of Victorville	)	**(revised September 6, 2007)**
	)	
	)	

☒ Transmission via electronic mail and by depositing one original signed document with FedEx overnight mail delivery service at Costa Mesa, California with delivery fees thereon fully prepaid and addressed to the following:

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DECLARATION OF SERVICE

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DESERT TORTOISE TRANSLOCATION PLAN

with FedEx overnight mail delivery service at Costa Mesa, California with delivery fees thereon fully prepaid and addressed to the California Energy Commission. I further declare that transmission via electronic mail was consistent with the requirements of California Code of Regulations, title 20, sections 1209, 1209.5, and 1210. All electronic copies were sent to all those identified on the Proof of Service List above.

I declare under penalty of perjury that the foregoing is true and correct. Executed on May 8, 2008, at Costa Mesa, California.

Paul Kihm