

**FINDINGS AND RECOMMENDATIONS  
FOR THE ISSUANCE OF SECTION 10(a)(1)(B) INCIDENTAL TAKE PERMITS  
IN ASSOCIATION WITH THE HYUNDAI MOTOR AMERICA AND THE CITY  
OF  
CALIFORNIA CITY HABITAT CONSERVATION PLAN, KERN COUNTY,  
CALIFORNIA**

**1. DESCRIPTION OF THE PROPOSED ACTION**

**A. Introduction**

The U.S. Fish and Wildlife Service (Service) proposes to issue incidental take permits to Hyundai Motor America (Hyundai) and the City of California City (City) for the desert tortoise (*Gopherus agassizii*), a federally and state-listed threatened species. The Service also proposes to sign an implementing agreement that commits Hyundai and the City to fund and implement provisions of the 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. The purpose of the permits and implementing agreement are to construct and operate an automotive test track facility located in the City of California City, Kern County, California.

Hyundai and the City each have applied to the Service for 30-year incidental take permits, pursuant to Section 10(a)(1)(B) of the Federal Endangered Species Act of 1973, as amended (Act). The proposed permits would authorize the incidental take of desert tortoise. The Service has determined that activities conducted in compliance with the incidental take permits are not likely to jeopardize the continued existence of the desert tortoise. The incidental take authorization is effective, upon issuance of the permits, for the desert tortoise.

In support of their Section 10(a)(1)(B) permit applications, and as required by Section 10(a)(2)(A) of the Act, Hyundai and the City have submitted to the Service a conservation plan entitled “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*)” and its associated implementing documents, including the Implementing Agreement (IA). The effects of the Service issuing the Section 10(a)(1)(B) permits and entering into the IA are analyzed in the Biological Opinion dated January 12, 2004(1-8-04-FW-3). The Service presents herein its analysis and findings regarding whether the EA/HCP meets the incidental take permit issuance criteria described in Section 10(a)(2)(B) of the Act.

**B. Description of the Automotive Test Track Facility**

Hyundai proposes to construct the proposed automotive test track facility (Facility) on 4,498 acres located approximately 0.5 mile north of State Highway 58 (Figure 2.1-1 of the EA/HCP, *Proposed Project*). This location is depicted on the USGS 7.5-minute series Sanborn topographic quadrangle (Township 11 North, Range 11 West, Sections

9,10,11,14, 15, 16, and portions of Sections 22, 23, and 24).<sup>1</sup> The purpose of the Facility is to test and evaluate the safety, performance, and handling of concept, prototype, and production automobiles manufactured by Hyundai at its Birmingham, Alabama plant, which currently is under construction. Construction of the proposed Facility is planned to occur in two phases (Figure 1-1 of the EA/HCP, *Proposed Project Phase 1 and Phase 2 Elements*). Phase 1 consists of installation of the 6.4-mile oval track, a spanning bridge over the oval track, the southern access road, the security and desert tortoise fencing, the support building and associated utilities, the Hill-Up Road and the 2-mile water line. Phase 2 consists of the installation of the vehicle dynamic area (VDA), winding track, a 12-lane special surface area, four-lane vehicle stability testing area, and a choppy road.

The first test automobiles produced at the Alabama plant are to be sent to the proposed Facility for initial testing of the power train, primary chassis stability, and handling. The results of these tests will be used to refine the factory production process so that the final production model automobiles meet quality and safety standards. The testing and refining of the test automobiles can take several iterations before the test model can be moved to the final refinement of the manufacturing process prior to manufacturing a production model automobile suitable for market.

Development of the proposed Facility requires a site consisting of approximately six sections of land to accommodate a 6.4-mile-long oval test course. An additional 8.5 acres outside the proposed project site boundary would be developed to provide an access road off Highway 58 to the proposed facility site (Table 2.1-1 of the EA/HCP, *Project Element Grading Footprint*). The City's proposed water line extension and access road work along Joshua Tree Boulevard would impact an additional 20 acres. Development would occur on lands classified by the Bureau of Land Management (BLM) as Category III desert tortoise habitat.<sup>2,3</sup>

The entire 4,498 acre proposed facility site would be enclosed by desert tortoise exclusion fencing. The proposed facility therefore would impact 4,498 acres on the project site, plus 8.5 acres outside of the proposed facility boundary. An additional 20 acres would be impacted by the City's proposed the water line extension along Joshua Tree Boulevard. Therefore, the proposed project is anticipated to impact a total of 4,526.5 acres of desert tortoise habitat (Table 2.1-1 of the EA/HCP). However, impacts to approximately 1,140 acres of desert tortoise habitat within the project site previously were mitigated as part of the Western Mojave Land Tenure Adjustment Project (LTA), a private party land exchange with BLM.<sup>4</sup> Additional habitat compensation for impacts to desert tortoise on those 1,140 acres is not required under the terms of the Biological Opinion for Western Mojave Land Tenure Adjustment Project (6844440 (CA-063.50)) (1-8-98-F-60R), dated September 10, 1998. The total acres for which Hyundai and the City will provide compensation are 3,386.5 acres.

Impacts for each of the proposed project elements were calculated by overlaying the project grading foot print onto a topographic map of the proposed project site and using CAD to calculate the acres impacted by each project element. Fencing installation was estimated to use a 10-foot-wide tract of land, with 2 additional acres for staging and

storage. The following table provides a description of each project element, along with acres that will be directly lost from ground disturbance (847.5 acres).

**TABLE 1**  
**PROJECT ELEMENT GRADING FOOTPRINT**

Project Element	Ground Disturbance (acres)
<b>Automotive Test Course</b>	
Access Road South	21
Access Road East	19
On-Site Water Line	1
6.4-Mile Oval Course (including berms, swales, adjacent carwash and fueling station, chainlink safety and security fencing, and bridge)	487
Winding Track	72
Vehicle Dynamics Area	81
Hill Up Road	40
Support Building/Lot	8
Straight Stability Road	72
Perimeter Security/Desert Tortoise Exclusion Fencing	18
Temporary Exclusion Fencing	0
<b>Total Ground Disturbance for Test Course</b>	<b>819</b>
<b>Waterline Extension</b>	
California City Access Road (Joshua Boulevard) and Waterline	20
<b>Total Ground Disturbance for Waterline Extension</b>	<b>20</b>
<b>Impacts Outside of Test Course Project Boundary</b>	
Highway 58 Access Road	8.5
<b>Total Ground Disturbance for Highway 58 Access Road</b>	<b>8.5</b>
<b>Total Ground Disturbance</b>	<b>847.5</b>

**The proposed facility includes the development of access roads, test tracks, a support building, an enclosed car wash, and perimeter security/desert tortoise exclusion fencing. These areas are described below.**

### ***Access Roads (Phase I)***

A paved access road off Highway 58 (Hwy 58 access road), approximately 2 miles in length, would be constructed from Post Mile 120.99, the Section line located approximately 0.84 mile west of the existing access from Highway 58. This access road would be constructed outside of the proposed project boundaries and would connect the facility to Highway 58. The proposed access road location provides an existing paved crossover with eastbound and westbound left turn lanes, in addition to adequate sight distances and a longer median crossover. The Highway 58 access road would be designed as two 14-foot-wide lanes with acceleration lanes onto Highway 58.

A paved emergency access road, approximately 2.5 miles long, would be constructed parallel to the eastern boundary of the proposed facility. This road also would be used as the Hill-Up Road described below. A 1-mile access road (Access Road East) connecting the southern end of the Hill-Up Road to the support building also would be constructed.

### ***On-Site Water Line***

A water line extension would be constructed to service the Facility and would extend from the support building northeast to the City's water line extension along Joshua Tree Boulevard. This water line would begin at the building and would extend north to the oval track. The water line would be buried underground.

### ***Test Tracks***

The Facility includes a 6.4-mile oval course, a loop track, a shorter winding track, a Vehicle Dynamics Area (VDA), and paved hill roads that simulate the diverse conditions under which production vehicles must be tested.

#### ***Oval Test Track (Phase 1)***

The 6.4-mile oval course would be approximately 50 feet wide. The prevailing southwest to northeast direction of the winds at the proposed project site requires that the oval track be oriented with the long sides of the track parallel to the prevailing wind conditions. The 6.4-mile oval course would be designed for a maximum speed of 125 miles per hour.

#### ***Winding Track (Phase 2)***

A loop track (Winding Track) with various simulated surfaces and a shorter 2- to 3-mile-long winding track would be located inside the longer 6.4-mile oval course. The winding track would be less than 50 feet wide and would be designed with standard curves that meet Caltrans highway specifications.

#### ***Vehicle Dynamic Area (Phase 2)***

The VDA would be an asphalt surface, approximately 300 feet wide at its western end, 1,200 feet wide at its eastern end and 3,000 feet in length, and would be constructed inside and parallel to one of the straightaways inside the larger oval course.

#### *Hill-Up Road (Phase 1)*

The facility would include one long, paved Hill-Up Road, approximately 2.5 miles long. The Hill-Up Road would be located approximately 100 feet south of the northern boundary of the property and 100 feet west of the eastern boundary of the property.

#### *Support Building (Phase 1)*

A 28,000-square-foot support building for interior tests and a 150-space parking lot would be constructed on 8 acres located close to the test course but at sufficient elevation to provide the required visibility of the exterior test facilities. A fuel storage area, fuel pumps, and car wash would be constructed in proximity to the parking lot. Fuel would be used as needed to support the Facility. Storage tanks equipped with an automatic fill system for fire protection would be provided at a location acceptable to the City Fire Department. Fluids used in operation and maintenance of vehicles would be transported to an appropriate off-site disposal location.

#### *Car Wash and Fueling Station*

An enclosed car wash would be constructed approximately 200 feet north of the support building, approximately 23 feet by 40 feet in size, and would be used to wash test automobiles only. Adjacent to the car wash would be a fueling station with fuel tanks. The fueling station would be an open structure surrounded by four walls. Grading impacts for the car wash and fueling station are included in the impact acreage for the oval track.

#### *Facility Fencing (Phase 1)*

##### Perimeter Security/Desert Tortoise Exclusion Fencing (Phase 1)

Approximately 12 miles of hog wire fence or three stranded barbed wire and desert tortoise exclusion fencing would be installed along the boundary of the proposed project site. The wire fence would be constructed along the proposed property boundary to mark the edge of the project site and deter trespassing. The desert tortoise exclusion fence would be installed separately, and the two fences would be designed to ensure that they do not impede movement of other wildlife species. The fences would be designed to inhibit birds that prey on desert tortoises from perching on their components. For example, to prevent birds from perching on fence posts, fence posts would be topped with nixalite, sharp, intertwined, stainless steel spikes standing at upward angles, with an upright, 8-inch metal spike welded in the center of each fencepost. To prevent birds from perching on the fencing, two flexible wires would be loosely strung between the metal

spikes on the fence posts, with one wire approximately 3 inches above the top of the fence, and the other wire approximately 8 inches above the fence. Desert tortoise exclusion fencing would also be installed along the access road from Highway 58 to the Facility.

The desert tortoise fencing would be built to specifications agreed to by the Service and the CDFG and would be constructed of galvanized narrow mesh hardware cloth, sunk up to 12 inches below the surface of the ground, and rise a minimum of 18 inches above the surface of the ground. The desert tortoise exclusion fence would run along the inner edge of the security fence. Temporary desert tortoise exclusion fencing also would be constructed around the oval track prior to initiation of construction activities. This fence would be connected to metal poles staked into the ground and would be removed when the desert tortoise exclusion fencing around the perimeter of the site is completed.

### Chainlink Fencing

Prior to commencement of facility operation, chainlink security and safety fencing would be constructed around the oval track. Fencing would be composed of standard chain-link fencing 8 feet in height, with 8-foot spacing between posts. Entry gates would be provided in the fence at the designated road entry point for the oval test course, and at three specified points along the oval test track. The three additional gates would be used only by authorized personnel for situations that require rapid access to the interior of the oval test track.

### *Operations*

The facility would operate for 30 years, 350 days per year, and would have a regular year-round staff of approximately 35 to 40 employees. Approximately 50 to 65 employees would work at the project site during a peak period from mid-July to late August for summer, hot-weather testing. As many as 100 people, consisting of employees, visitors, and media representatives, would be present during several days of special programming per year.

Hazardous waste, including used motor oil waste and coolant, would be stored and transferred in a manner consistent with applicable regulations and guidelines, including those mandated by the California Environmental Protection Agency (EPA), Caltrans, the California Regional Water Quality Control Board - Lahontan Region, and the City of California City Fire Department. The use of herbicides, pesticides and chemicals that could be harmful to desert tortoise would be discouraged on the project site, and are understood not to be activities covered under the incidental take permits.

### *Rain Gauges*

Three rain gauges would be installed on the project site to measure rainfall. One would be installed at the support building, one at the northern end of the Hill-Up Road, where it intersects the roadway and waterline extension, and one along the perimeter desert

tortoise exclusion fence at the northwest boundary of the property. The rain gauges would serve as an indicator of when the desert tortoise exclusion fencing should be checked for damage. During heavy rainfall, there is an increased likelihood of damage to the fencing due to washouts or debris piling up along the fence. Because rainfall in the desert can be very sporadic, rain gauges would ensure that a rain event will not go unnoticed. During the rainy season, rain gauges would be checked twice monthly, and when rain has collected, a check of the exclusion fence shall be initiated.

### ***Property Ownership***

The proposed project site consists of 4,498 acres of vacant land. On December 13, 2002, Hyundai purchased 2,880 acres from Santa Fe Pacific Properties, Inc. (Catellus Development Corporation). The remaining 1,618 acres consist of 203 separately owned parcels. These parcels are being acquired by the Redevelopment Agency of The City of California City (RDA) and will be transferred to Hyundai pursuant to the terms of the Owner's Participation Agreement (OPA) between Hyundai and the RDA. The RDA has acquired 107 parcels through agreements with land owners. The RDA has obtained Orders of Possession for the remaining 96 parcels through the exercise of its powers of eminent domain.

### ***Conservation of Species/Habitat***

The EA/HCP is designed to allow limited development on 4,526.5 acres in the West Mojave Desert within the city limits of California City while conserving 3,386.5 acres of habitat in perpetuity for the federally threatened desert tortoise. The HCP also includes measures to minimize the injury and mortality to the desert tortoise at the project site and a translocation program. As part of the translocation program, desert tortoises would be translocated from the project site to habitat purchased and managed for the desert tortoise and conserved in perpetuity. The program also includes multi-year monitoring of translocated and resident desert tortoises at the translocation site(s) and desert tortoises at a control site. The purpose of the EA/HCP is to promote biological conservation in conjunction with economic development in the areas covered by the permits. The HCP establishes a species conservation program to minimize and mitigate the expected loss of habitat values and incidental take of the desert tortoise.

The biological goals of the EA/HCP are to enhance the long term viability of the desert tortoise in the region of the proposed project to enhance the probability of the recovery of the species. The biological objectives of the HCP are to:

1. Increase the area of protected and conserved habitat for the desert tortoise in the region of the proposed project;
2. Enhance the value of the protected and conserved habitat for the desert tortoise;
3. Provide for the maintenance of the protected and conserved habitat for the desert tortoise in perpetuity; and

4. Avoid and minimize direct take of desert tortoise from project construction and operation.

### ***CITY WATER LINE EXTENSION***

The City is proposing to construct a paved access road and extend a water pipeline to the northeast corner of the proposed project site by improving 2 miles of Joshua Tree Boulevard (California City Access Road). The pipeline would be buried. This access road would run from the northeast corner of the proposed Facility site, extending easterly along the Section line for a distance of approximately 2 miles to join the existing roadway system at the intersection of Joshua Tree Boulevard and Airway Boulevard. The existing unimproved 12-foot-wide Joshua Tree Boulevard would be improved to an asphalt-paved road 24 feet in width, 12 feet on each side of the proposed center line, resulting in 12 feet of new grading for the road improvement on each side of the existing roadway. An additional 18 feet of graded shoulder would be constructed on each side of the road. The remaining portion of the street right-of-way (approximately 25 feet on each side) would remain undisturbed, except for that section temporarily disturbed for the installation of the water pipeline. The ultimate street right-of-way dedication would be 110 feet (Figure 2.1-1 of the EA/HCP, *Water Pipeline Extension Detail*). The improvements to Joshua Tree Boulevard would provide access for emergency vehicles to the Facility. The 2-mile water line extension would not include any water valves or hydrants and would service the proposed Facility only. There are currently no plans for additional projects along the water pipeline and road extension. The proposed buried water line extension would run 38 feet south of the proposed center line of the Joshua Tree Boulevard right-of-way (Figure 2.2-1 of the EA/HCP). The line would consist of 14-inch high-density plastic pipe, pursuant to City and fire department standards. A permanent access road along the water pipeline would not be needed. At least 25 feet from the north edge of the graded shoulder to the north of the proposed road way would not be graded as a part of this project. The City would have responsibility for construction and maintenance of the water line extension, and for mitigation of all impacts associated with the water line extension.

### ***CHANGES MADE BETWEEN DRAFT AND FINAL EA/HCP***

The Notice of Availability for the Draft EA/HCP for the Hyundai test Track was published in the Federal Register on July 25, 2003. Public comment was solicited and lasted through September 22, 2003. The public comment period on the Draft EA/HCP enabled the Service to gather comments from interested parties. The process of reviewing and considering these comments led to the development of changes to the original proposed EA/HCP. These changes were clarification, updates, and additional minimization, mitigation, and monitoring measures. The Final EA/HCP was modified accordingly and is incorporated herein by reference (Sapphos, December 2003). The primary changes from the draft to the final EA/HCP are summarized below:

1. Section 2.1; Facility Fencing, Phase 1 discusses changes to the management of clinically ill desert tortoises. Permanent desert tortoise exclusion fencing will be

installed around several hundred acres north of the oval track in the northwest portion of the project site, to provide a holding area for desert tortoises exhibiting clinical signs of illness, in accordance with the Translocation Program, attached as Appendix A. This area will be exclusion fenced and cleared of healthy desert tortoises prior to moving clinically ill desert tortoises into the area.

2. Section 2.1; Automotive Test Course Facility discusses the total acreage within the boundary of the Hyundai proposed project. This acreage has increased to 4,498 acres from 4,340 acres reported in the Draft EA/HCP. This increase is not the result of expansion of the project footprint. Rather, it is the result of unavailable survey data. The boundary of the project area was surveyed and the results showed that some of the sections contained more than 640 acres. While the boundary of the project area has not changed the number of acres contained within some of the sections is greater. This acreage plus the acreage for the access road from Highway 58 and the water pipeline brings the total acreage from implementation of the construction of the Facility and ancillary features to 4,526.5 acres.

3. Section 2.3.5; discusses revised procedures for conducting clearance surveys. Post-construction clearance and monitoring will begin in the autumn following the initial clearance and translocation of all desert tortoises from the Hyundai site (except sequestered, clinically ill tortoises), thereby minimizing potential take. If the prior spring has poor forage and there is relatively no summer rain, the first annual Post-construction monitoring and clearance would be postponed until the next activity season when there has been sufficient rainfall for desert tortoises to be active. Post construction surveys shall consist of surveys of the entire project site using 10-foot transects to assure 100 percent coverage. A final clearance survey shall be conducted of the project site in the fifth year following completion of the initial clearance and translocation of desert tortoises, to locate and translocate any desert tortoises that were too small to be seen during the initial clearance and may have grown to sufficient size to permit detection.

4. Section 7.1.2; Habitat Compensation discusses the increased compensation acreage. The compensation acreage that Hyundai will purchase has increased from 3,228.5 acres to 3,386.5 acres. Hyundai shall compensate for approximately 3,366.5 acres of desert tortoise habitat within the proposed project site. Impacts to desert tortoise habitat, and required mitigation acreage to compensate for those impacts, were determined as follows: 4,498 acres of habitat that desert tortoise will be excluded from following fencing, plus 8.5 acres of impact outside of the project description for the new access road, minus 1,140 acres of land previously mitigated through the LTA, for a total mitigation requirement of 3,366.5 acres. Thus, at a ratio of 1:1, Hyundai shall purchase a total of 3,366.5 acres. The City shall compensate for 20 acres of habitat lost from construction of the waterline along Joshua Tree Boulevard.

5. Section 8.1; Acquisition of Compensation lands addresses the ownership and management of the compensation lands. Compensation lands will be purchased by Hyundai and fee title to these lands will be transferred to CDFG or to a third party approved by Hyundai, the City, USFWS and CDFG. If fee title to the compensation lands is held by an approved third party, a conservation easement over the compensation lands will be recorded in favor of CDFG and in a form approved by CDFG. CDFG will also receive the endowment funds for the compensations lands.

## **II. ANALYSIS OF EFFECTS**

The effects of the proposed action on the desert tortoise are fully analyzed in the EA/HCP and biological opinion for the proposed action, which are incorporated by reference, and a summary of the analysis is provided below.

Implementation of the Hyundai EA/HCP will remove 4,526.5 acres of occupied desert tortoise habitat that will likely result in take in the form of capture, injury, harm, or mortality to the 30 desert tortoises within the project area.

Issuance of the Permits will directly and indirectly affect approximately 30 desert tortoises within the project area. It will also indirectly affect desert tortoises located immediately adjacent to the project area. The translocation program of the proposed action will directly and indirectly affect desert tortoises at the translocation site and those at the control site. The proposed action will result in the removal of 4,526.5 acres of occupied desert tortoise habitat. However, it will result in the acquisition of 3,386.5 acres of desert tortoise habitat that will be managed for the desert tortoise in perpetuity. Catellus development Corporation (Catellus) received 4,810 acres of Bureau land in exchange for 14,200 acres within critical habitat units for the desert tortoise in the Black Mountain and Fossil Canyon areas. Three of the parcels, totaling 1,140 acres and exchanged to Catellus, are located within the proposed project area. Compensation for these 1,140 acres was previously addressed through the Land Tenure Adjustment (LTA) process between the Bureau of Land Management and the Catellus Development Corporation in a biological opinion (Fish and Wildlife Service 1998<sup>4</sup>).

Potential direct effects to the desert tortoise that may result from construction of the proposed Facility at the project site include injury or mortality to all size classes of desert tortoises from crushing by construction and access vehicles and heavy equipment. Occupied and unoccupied burrows of desert tortoises may be collapsed by these vehicles and heavy equipment, and desert tortoise eggs may also be crushed. Other potential direct effects from the operation of the Facility include injury and mortality to eggs and desert tortoises not found during translocation efforts. The injury and mortality would result from crushing by vehicles and equipment during the operation and maintenance of roadways, tracks, buildings, and infrastructure at the Facility. Adverse physiological effects to desert tortoise would occur from their capture to move them from the path of vehicles and heavy equipment. These include stress from handling and loss of stored water in their bladders through urination, if handled improperly. This stored water is important to desert tortoise to help them survive dry seasons and years.

Indirect effects at the proposed project site include destruction and modification of desert tortoise habitat used for feeding, breeding, and shelter from the establishment of roadways, tracks, buildings, and other above ground and underground structures and support facilities. Fragmentation of desert tortoise habitat used for feeding, breeding, and shelter would occur by spatially distributing approximately 850 acres of the Facility's footprint across 4,400 acres of the project site.

Desert tortoises immediately adjacent to and those whose home ranges straddle the boundary of the proposed project may lose portions of their home ranges that they use for foraging and shelter locations. Some may lose past and future mates. Thus, the reproductive potential for these desert tortoise may be reduced.

The translocation study will affect three desert tortoise population cohorts. All three cohorts are part of the western limits of distribution of the west Mojave population of the desert tortoise. The largest unit comprises the project site animals and will represent home ranges that are spread over approximately 7 square miles. The translocation site will include home ranges of animals in a 2 square mile area and the control site will include home ranges of approximately 15 animals. The translocation study will include placement of radio transmitters on all three population cohorts. Radio transmitters will be epoxied to the carapace of the animals and may affect those animals in several ways. The process of placing the transmitter on a desert tortoise requires handling for about 30 minutes. This handling places physiological stress on the desert tortoise moving them around in ways to which they are not accustomed. They exhibit a defensive behavior and withdraw into their shell. This handling may result in the voiding of their bladder, reducing their water reserve.

The transmitters can impede each animal's ability to negotiate terrain and burrows. The transmitters may also increase the vulnerability of animals to predation by affecting their ability to successfully maneuver during escape and evasion situations. Transmitters may interfere with male-male combat during mating season. A desert tortoise with a transmitter that has flipped over has greater difficulty righting itself. If unsuccessful in righting itself in a short period of time, the desert tortoise will die from exposure to predation, weather elements, or crushing of the lungs by other internal organs. The weight of the transmitter may cause additional stress to the desert tortoise in that it must carry up to an additional 10 percent of its body weight for four years. This places additional physiological demands on the desert tortoise by using more food and water to transport this additional weight.

The translocated and control desert tortoises will also be subjected to blood tests and nasal lavage tests. This activity will create physiological stress for the desert tortoise by restraining the animals and placing a needle in the brachial artery or jugular vein to withdraw blood and flushing a solution into the nares and collecting the exudate.

Potential effects to translocated desert tortoises include physiological stress from handling during translocation to prevent mortality or injury from construction activities; reduction in or temporary curtailment of reproduction if courtship and mating behavior of free-ranging tortoises at the translocation site is modified by the translocation of desert tortoises; spread of disease between host and translocated animals; increased risk of predation if translocated desert tortoises are unable to find cover or appropriate burrow habitat in a timely manner; increased susceptibility of the translocated and host desert tortoises to disease caused by stress from translocation where competition with the host population and/or adaptation to new and unfamiliar territory. Effects to host desert

tortoises are similar to those of the translocated desert tortoises with respect to mating and reproduction, disease transmission, and disease outbreak.

Implementation of the Hyundai EA/HCP will remove 4,526.5 acres of occupied desert tortoise habitat in the West Mojave Desert. This habitat has been classified as Category III desert tortoise habitat by the BLM and is not within or adjacent to a recovery unit or Desert Wildlife Management Area (DWMA). Development and fencing of the proposed project site will also fragment existing habitat. The project site is surrounded by desert tortoise habitat. The habitat to the south of the proposed project is already fragmented by State Highway 58. This highway also serves as a barrier to the movement of tortoises to and from habitat located south of the project site. Additional effects include impeding movement of desert tortoise and gene flow between those desert tortoise located in habitat west of the proposed action with those located in habitat east of the proposed action. The proposed action does not block movement and gene flow because of the presence of suitable desert tortoise habitat north of the project site.

The proposed compensation of 3,386.5 acres of desert tortoise habitat will have a beneficial effect as it will result in the enhancement and management of this habitat for the benefit of the desert tortoise in perpetuity. The location of the compensation lands is in an area identified for future acquisition of and management for the desert tortoise. This area is adjacent to the Fremont-Kramer DWMA and critical habitat. Thus the compensation lands will contribute to long-term conservation of the species by adding additional lands to this management unit and reducing the fragmentation in land ownership and use that currently exists. Long term prognosis for the project site is increased development and fragmentation.

### III. PUBLIC COMMENT

On July 25, 2003, the Service published a notice of availability of, and solicited comments on the permit applications, EA/HCP, and IA for the proposed action in the *Federal Register*. Publication of the notice initiated a 60-day comment period. Over 15 copies of the draft EA/HCP, and IA were distributed to interested parties and agencies, including Federal and State agencies, Tribes, environmental organizations, and public and local officials. The documents also were placed in local and regional libraries and were made available for review at the Service's Ventura Fish and Wildlife Office and on the Office's web site. At the conclusion of the 60-day public comment period, four comment letters were received by the Service. The 60-day comment period closed on September 22, 2003. This Findings and Recommendations document and the Finding of No Significant Impact (FONSI) will be made available to all known interested parties. Following final action on the application, the Service will publish a notice in the *Federal Register*. A summary of the comments and the Service's responses follow:

#### **Desert Tortoise Preserve Committee; letter of September 22, 2003**

Comment 1: The number of desert tortoises on the project site is unknown.

Response: The results of early surveys on the project site determined only that the site was occupied by desert tortoises. Results of a subsequent survey in March of 2003 (Draft EA/HCP, Appendix B) recorded 8 adult desert tortoises on approximately 4 square miles.

This would mean that there are about 2 adult desert tortoises per square mile or 14 adult desert tortoises at the project site. The total number of desert tortoises at the project site for all size classes was estimated to be between 20 to 34. Results of surveys conducted on all of the land (approximately 7 square miles) in the fall of 2003 recorded 19 adult and one juvenile desert tortoises or approximately 2.8 desert tortoises per square mile. The number of desert tortoises found at the project site is fairly well known given the results of these two surveys conducted in 2003, one in spring and one in fall. The low densities of desert tortoise at the project site were expected, considering the range-wide population decline especially near the western edge of the distribution of the desert tortoise.

Comment 2: The health of the animals on the project site is unknown.

Response: That is true, and for that reason, part of the translocation program requires collecting information on the health status of the desert tortoises prior to translocating them. If animals are found with clinical signs of illness, they will not be translocated and will remain on site in a fenced area northwest of the oval track.

Comment 3: There is a consistency problem with the approved State Environmental Impact Report for compensation of land and local rare plants.

Response: The project applicant is not relieved of responsibilities for compliance with other Federal, State, and local laws in the event that the Service issues section 10(a)(1)(B) permits for the proposed project. The local rare plant species are as likely to occur on the compensation lands as they are on the project site.

Comment 4: There was a failure to report the discovery of the Barstow woolly sunflower (*Eriophyllum mohavense*) and provide mitigation for it. There was also no information provided on the analysis of effects of the proposed project on the desert cymopterus (*Cymopterus deserticola*).

Response: Information from the spring 2003 survey on the location of the Barstow woolly sunflower on the project site may be found on page 9 of Appendix B, *map of other resources*. The locations of additional sightings from the fall 2003 survey have since been plotted. Approximately half of the locations found during the fall survey will be affected by the construction footprint. The Barstow woolly sunflower is not a federally listed plant species and does not require mitigation for the purpose of this project.

There was no focused survey conducted for the desert cymopterus at the project site. However, biologists conducted surveys in 2002 and spring and fall of 2003 at the proposed project site. The spring 2003 survey was conducted following substantial winter rains. There were no reports of desert cymopterus at the project site although Barstow woolly sunflower was found. Conditions in spring 2003 were favorable for

detecting the above-ground portion of desert cymopterus yet none were detected during the spring 2003 survey. The proposed project is located outside the known range of desert cymopterus. Given the 2003 survey results and the location of the proposed project, desert cymopterus is unlikely to occur onsite.

Comment 5: The HCP does not provide protection for species other than the desert tortoise and should be a multispecies plan.

Response: According to the Fish and Wildlife Service HCP Handbook, the permit applicant identifies the species for which they are seeking incidental take coverage. Hyundai Motor America and California City identified the desert tortoise. Consequently, the draft EA/HCP only addresses effects to the desert tortoise. A section 10 (a)(1)(B) permit would only be issued that provides incidental take coverage for the desert tortoise. There are no other federally listed species that would be affected by the proposed project.

Comment 6: Acquisition of compensation lands in the draft EA/HCP cannot meet the term in the approved final EIR requiring compensation for the desert cymopterus, pygmy poppy, and alkali Mariposa lily.

Response: The draft EA/HCP addresses the issue of compensation for the desert tortoise. This is the only species in which the applicants have requested incidental take coverage. The applicants must also meet any other requirements for which they have legal and regulatory obligations. Please refer to our response to Comment 3 above and Comment 14 below regarding the permittees' responsibilities to comply with other Federal, State, and local regulations.

Comment 7: The draft EA/HCP did not address where the Land Tenure Adjustment (LTA) lands were acquired and what is their habitat value or condition.

Response: The Bureau of Land Management (Bureau) acquired LTA lands in the Superior-Cronese desert tortoise critical habitat unit. These land are within Category I desert tortoise habitat. One purpose of the LTA is to consolidate lands under one management authority and manage these lands for the desert tortoise. We have additional public information in the Ventura Fish and Wildlife Office on the specific locations of the acquired lands as does the Bureau of Land Management. This information is available upon request.

Comment 8: The draft EA/HCP did not include the recommendations in the Desert Tortoise Recovery Plan.

Response: Recovery plans, which are guidance documents, are intended to have applications on lands identified as necessary for long term management of the identified species. Part of the mitigation plan in the proposed EA/HCP includes the acquisition of lands and financial support to manage these lands for the conservation of the desert tortoise in perpetuity.

Comment 9: Will the translocation study be able to address the questions with statistical validity given that there are so few animals?

Response: According to Zar (1974)<sup>5</sup>, the minimum sample size to perform statistical analysis cannot be predicted in advance. In general, a larger sample size will result in statistical tests with greater power. However, this is dependent upon the variability of the data. So far 19 adult desert tortoises and one juvenile desert tortoise have been located at the project site.

Comment 10: The Land Acquisition and Management Plan of the draft EA/HCP contains outdated information and should be updated.

Response: We disagree; we are not aware of any outdated information in the land acquisition plan. Moreover the commentor did not identify specific outdated information. The land acquisition plan has not substantially changed since it was released to the public in the draft EA/HCP on July 15, 2003. The basic requirements of and purpose for the land acquisition and implementation have not changed.

**California Native Plant Society; comment letter of September 12, 2003**

Comment 11: There was a failure to report the discovery of the Barstow woolly sunflower (*Eriopyhllum mohavense*), a locally sensitive species, and provide mitigation for it in the draft EA/HCP. The commentor requests full disclosure and analysis of all relevant information. There was also no information provided on the analysis of effects of the proposed project on the desert cymopterus (*Cymopterus deserticola*).

Response: Please see response to Comment #4 above.

Comment 12: The Service should prepare an EIR to fully address the complex issues that are involved with the project.

Response: We assume that the intent of the comment was to request an environmental impact statement (EIS) to address the complex issues involved with the project. The Service has reviewed the requirements for determining the need to prepare an EIS. Complexity is not a determining factor for requiring the preparation of an EIS (40 CFR 1502.4). The Service believes that the analysis of the EA is sufficient to issue a Finding of No Significant Impact and therefore an EIS is not required.

**Defenders of Wildlife/Center for Biological Diversity; letter of September 22, 2003**

Comment 13: The draft EA/HCP is seriously flawed in terms of adequate consideration of environmental impacts and assurances of required compensation and mitigation impacts.

Response: We disagree. The Draft EA/HCP adequately considered environmental impacts. The entire project site will be compensated for at a ratio of 1:1 with 3,386.5

acres of desert tortoise habitat managed for the desert tortoise in perpetuity. An integral element of issuance of a 10(a)(1)(B) permit includes assurances for acquisition of mitigation lands for habitats occupied by federally listed species that are adversely affected. The assurances for adequate compensation are included in the Implementing Agreement between the Applicants and the Service.

Comment 14: The draft EA/HCP was released prior to the California Endangered Species Act analysis.

Response: Compliance with the California Endangered Species Act (CESA) is the responsibility of the State of California. The issuance of a section 10(a)(1)(B) permit is a Federal process. Section 10(a)(1)(B) permits contain language that requires the permittees to comply with all other applicable Federal, State, and local agency regulations. The Service has been working closely with the California Department of Fish and Game throughout the development of the EA/HCP to ensure that the requirements of both agencies are met and both agencies are working on the same time lines for permit issuance. Currently CDFG's time line for issuance of their 2080.1 permit is consistent with the Service's permit issuance time line.

Comment 15: The draft EA/HCP fails to adequately assess the biological criteria upon which each of the alternatives could be analyzed. The commentor cites requirements in 40 CFR 1502.14 for an environmental impact statement (EIS).

Response: The Service has determined that the analysis presented in the draft EA/HCP is adequate for an environmental assessment. Effects to the endangered species are being mitigated to a level of insignificance and reduce the scope of the effects to less than those that would require the development of an EIS.

Comment 16: The cumulative effects analysis is incomplete. For example, the draft EA/HCP does not address the cumulative effects of the proposed West Mojave Plan (WEMO) and the proposed Ft. Irwin Expansion and any other proposed projects that may be in the area.

Response: The cumulative effects analysis is adequate. The proposed EA/HCP for the desert tortoise and issuance of section 10(a)(1)(B) permits may be additive to the cumulative impacts on the desert tortoise, however it is not significant and/or mitigates below the level of significance with the mitigation and minimization measures proposed in the EA/HCP. We have analyzed reasonable foreseeable future projects for which information is available. Only WEMO has been released as a public review document. The effects of the proposed EA/HCP are at a very different scale and will not be comparable to the larger landscape scale affects of either of the mentioned plans.

Comment 17: The draft EA/HCP did not adequately analyze and mitigate for habitat fragmentation and barriers to gene flow that would result from fencing the project site.

Response: The perimeter fences constructed around the proposed project are specifically designed so as not to impede movement of wildlife species such as the Mohave ground

squirrel. The desert tortoise perimeter fence would not be a genetic barrier to the local population north of Highway 58. There is still available desert tortoise habitat and continuous access to this habitat west, north, and east of the project site.

Comment 18: The HCP fails to provide compensation until 12 months after the permit has been issued and development has occurred.

Response: The applicants must place monies in an escrow account which will be used for the purchase of compensation lands. This account would be established on or before permit issuance. The applicants are establishing this account to guarantee that compensation lands will be purchased. The HCP states that the compensation lands must be purchased within 12 months of permit issuance. The applicants have researched the availability of suitable habitat for the desert tortoise in the area east of the Desert Tortoise Research and Natural Area (DTNRA) and have determined that acreage of habitat available from willing sellers is greater than the acreage required for compensation. Much of the acreage identified is within the area designated by the Desert Tortoise Preserve Committee (DTPC) for expansion of the DTRNA.

Comment 19: No contingency plan was presented in the draft EA/HCP for public review and comment.

Response: A contingency plan (reference to the contingency plan can be found in section 7.1.2 of the EA/HCP) would be developed in the event that off-site mitigation lands are found to be unsuitable for desert tortoises. Should the proposed compensation lands in the draft EA/HCP prove to be unsuitable for the desert tortoise, Hyundai and the City will work closely with CDFG and the Service to identify and acquire suitable compensation lands. However, this is not anticipated as the lands identified in the EA/HCP for compensation were agreed to by CDFG, DTPC, and the Service and the acreage available for acquisition is greater than the acreage required for mitigation.

Comment 20: The translocation plan presented for public review was described as inadequate for a decision maker to comprehend the effects of the action.

Response: The draft translocation plan stated that there would need to be a further review of the details of that plan, and the plan would need to be approved by both CDFG and the Service. The plan as presented in the final EA/HCP contains the information needed by the Service to make a decision about whether or not to approve the EA/HCP and issue the permits.

Comment 21: The draft EA/HCP contained no information with which to analyze the adequacy of compensation lands.

Response: The Service disagrees. The EA/HCP clearly states that the project proponent will compensate for habitat acquisition for lands of comparable habitat value at a 1:1 ratio. Prior to signing the Implementing Agreement and issuing the section 10(a)(1)(B) permits, the Service requires that the applicants provide adequate assurances of their

financial responsibility to acquire compensation lands, their habitat quality, and provide for their management in perpetuity and to implement the translocation program. For example, one of the assurances that the Service would require is that the compensation lands be of higher quality than the proposed project lands.

Comment 22: The translocation area and all management and methods associated with this practice must be included in the draft plan. Such information does not exist in the draft plan. Before the proposed action can proceed, the translocation area must be located and secured, and be available for public comment as well as agency analysis.

Response: Prior to signing the Implementing Agreement and issuing the section 10(a)(1)(B) permits, the Service requires that the applicants provide adequate assurances of their financial responsibility to acquire compensation lands and provide for their management in perpetuity and to implement the translocation program.

The final version of the translocation plan has not changed from the scope and effect presented to the public in the July 15, 2003 draft EA/HCP. Rather, it has refined specific actions that would be implemented within the original context. Both CDFG and the Service must approve the location and habitat quality of the translocation site.

Comment 23: The translocation plan fails to comply with the recommendations of the recovery plan.

Response: Please refer to our response to Comment 8 above.

Comment 24: There is no opportunity for the public to comment on the decision matrix for the translocation program. Without such a matrix it is impossible for the commentors or the agencies to analyze the effects of the proposed project. The project cannot be permitted until there is production of the decision matrix and subsequent required public review.

Response: The decision matrix is a chart that allows the applicants and the Service to quickly determine that when a situation occurs, what the proper response is and who should be implementing it. The decision matrix has clarified specific responsibilities in the translocation plan. Please refer to Comment 22 above.

Comment 25: The draft plan fails to report the presence of the Barstow woolly sunflower, this is a significant omission. The presence of this species, consideration of the impacts to it, and adequate mitigation measures must be included in the proposed project actions.

Response: Please refer to Comment 11 above.

Comment 26: The draft EA/HCP suffers from insufficient Adaptive Management and Monitoring. This section was vague in the draft EA/HCP, thus the public is unable to evaluate or analyze its adequacy.

Response: The Service feels the Adaptive Management (section 7.2 of the EA/HCP) and Monitoring (section 7.3 and Chapter 8 of the EA/HCP) are adequate, consistent with the Five Point Addendum to the HCP Handbook. Adaptive Management is an approach to managing natural systems and species that builds on learning. Adaptive management should focus on accelerating learning and adapting through partnerships among citizens, managers, and scientists to create and maintain sustainable ecosystems that support human needs. The managed landscape itself contains important information, including opportunities for retrospective studies of past management and natural events that can be given value and managed to produce knowledge for future decisions. If monitoring results or new information indicate management practices are not achieving the biological goals and objectives, adaptive management will be implemented. This process can be found in Section 7.2.

Comment 27: The draft EA/HCP lacked assurances for adequate funding.

Response: The Service feels funding for implementation of the EA/HCP is assured. The assurances for adequate funding are contained in the Implementing Agreement and Chapter 8 of the EA/HCP.

Comment 28: The applicants have not satisfied the requirements of the "No Surprises" policy.

Response: See part IV . The Service has determined that the requirements have been satisfied.

**Comments from private citizens Shana Lee and Douglas Bear; letter received on September 16, 2003**

Comment 29: The draft EA/HCP only provides conjecture about land acquisition and identification of translocation sites.

Response: Prior to signing the Implementing Agreement and issuing the section 10(a)(1)(B) permits, the Service requires that the applicants provide adequate assurances of their financial responsibility to acquire compensation lands (including translocation sites) and provide for their management in perpetuity and to implement the translocation program. Please see responses to Comments #18 and #22 above.

**IV. INCIDENTAL TAKE PERMIT CRITERIA – ANALYSIS AND FINDINGS**

Section 10(a)(2)(A) of the Act specifically mandates that no permit may be issued by the Secretary authorizing any taking referred to in paragraph (1)(B) unless the Applicant submits to the Secretary a conservation plan that specifies the following: (I) the impact which will likely result from such taking; (ii) what steps the Applicant will take to minimize and mitigate such impacts, and the funding that will be available to implement

such steps; (iii) what alternative actions to such taking the Applicant considered and the reasons why such alternatives are not being utilized; and (iv) such other measures as the Secretary may require as being necessary or appropriate for the purposes of the plan.

Section 10(a)(2)(B) of the Act mandates that the Secretary shall issue a permit if "...after opportunity for public comment, with respect to a permit application and the related conservation plan that (I) the taking will be incidental; (ii) the Applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking; (iii) the Applicant will assure that adequate funding for the plan will be provided; (iv) the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild; and (v) the measures, if any, required under subparagraph (A)(iv) will be met; and [s]he has received such other assurances as [s]he may require that the plan will be implemented..."

With regard to this specific project, permit action, and section 10(a)(2)(B) requirements, the Service makes the following findings:

**1. The taking will be incidental.**

The activities for which incidental take coverage are sought under the permits are for construction and operation of the proposed automotive test track facility (Facility) along with translocation of desert tortoises from the Facility. Any take of desert tortoise resulting from the loss of habitat through its conversion to development and operation of the Facility will be incidental to, and not the purpose of, these lawful activities.

**2. The Permittees will, to the maximum extent practicable, minimize and mitigate the impacts of taking of desert tortoise.**

The Applicants propose to implement measures as part of the proposed action to minimize and mitigate adverse effects of the project on the federally threatened desert tortoise. Hyundai and the City have developed the final EA/HCP and IA, pursuant to the incidental take permit requirements codified at 50 CFR 17.22(b)(1) and 50 CFR 17.32(b)(1) which require measures to minimize and mitigate the effects of issuing the permits. Under the provisions of the final EA/HCP, the impacts to take of the desert tortoise will be minimized, mitigated, and monitored through the following measures:

**a. Preconstruction Measures**

DT-1. As a means of minimizing impacts to desert tortoise, prior to the initiation of construction activities within the proposed project site, Hyundai and the City shall stake all proposed construction work areas, implement a worker education program, and conduct preconstruction surveys to identify inactive and active desert tortoise burrows within the proposed project site. Staking shall be verified by a biological monitor. "Authorized biologist" or "biological monitor" is a person or persons working pursuant to MOUs and Section 10(a) permits issued for the proposed project by the California Department of Fish and Game (CDFG) and Service. A "monitor" is a person or persons

with education and experience in working with desert tortoise, but who has no authority to handle a desert tortoise. A written report shall be submitted to the Service and the CDFG by the authorized project biologist verifying compliance with this measure.

DT-2.As a means of minimizing impacts to desert tortoise, Hyundai and the City shall require that all proposed construction staging areas, parking areas, and project elements be surveyed and clearly flagged by a registered surveyor prior to the initiation of preconstruction surveys. Compliance shall be verified by a biological monitor. A written report shall be submitted to the Service and CDFG by a biological monitor verifying compliance with this measure.

DT-3.As a means of minimizing impacts to desert tortoise, prior to the initiation of construction activities, Hyundai and the City shall require that an authorized biologist develop and administer a worker education program for all construction personnel. Construction crews, foremen, contractors, subcontractors and other personnel potentially working on the proposed project site shall undergo the education program to familiarize themselves with the particular biological restrictions and conditions of the area.

Practices and information covered by this program shall include speed limits, firearm prohibition, encounters with desert tortoise, staying within designated construction areas, pet prohibition, agency notification, checking under vehicles, trash and litter management, training on special status species within the project area, species and habitat identification, techniques to avoid impacts to species, consequences of taking a listed species, and reporting procedures when encountering listed or sensitive species. An incentive program will be incorporated into the worker education program to encourage on-site workers to report observations of desert tortoise to an authorized biologist. The text of the worker education program shall be submitted to the Service and the CDFG at least 10 working days prior to the initiation of construction.

Workers shall receive a sticker or certificate that they have completed the training. A construction monitoring notebook shall be maintained on site throughout the construction period and shall include, at a minimum, a copy of the Section 10(a) permits for incidental take, a copy of the CESA Section 2081(b) incidental take permit, the EA/HCP, the Mitigation Monitoring and Reporting Plan adopted by the City, and a list of signatures for all personnel who have successfully completed the worker education program. The authorized biologist shall demonstrate compliance with this measure by sending a copy of the education program and a copy of the construction monitoring notebook, including a list of the names of workers who have completed the required worker education program, to the Service and the CDFG on an annual basis.

#### **b. Recovery and Relocation**

DT-4.As a means of minimizing impacts to desert tortoise, the authorized biologist shall recover and relocate all desert tortoise encountered within the proposed project site in accordance with the Translocation Program attached as Appendix A, *Desert Tortoise Translocation Program*. Handling of desert tortoise shall be performed according to

*Guidelines for Handling Desert Tortoises During Construction Projects* to minimize stress and spread of disease.<sup>6</sup> All desert tortoise handling shall be done only by an authorized biologist.

As stated in *Guidelines for Handling Desert Tortoises During Construction Projects*, the following information shall be collected when processing a live tortoise encountered during clearance surveys:

- Tortoise number
- Numbered scute
- Weight
- Sex
- Mean carapace length (MCL)/Plastron length (PLN) measurement, width and maximum height
- Photos of carapace, plastron, frontal, and numbered scute
- Health profile including nasal description breathing and URTD determination, posture and behavior, shell disease and signs of trauma
- Project identification including date, project name, biological monitor or authorized biologist's name, location (state, county, USGS quadrangle)
- Project description including topography, soil type, vegetation and location found
- Tortoise burrow data including time of excavation, burrow number, temperature during excavation, burrow width, height, length, orientation and condition

The authorized biologist shall submit the above information to the SERVICE and CDFG within 14 days of the completion of desert tortoise clearance surveys.

### **c. Construction and Operations Avoidance Measures**

Hyundai and the City shall implement the following measures to avoid impacts to desert tortoise during construction and operation of the proposed project.

DT-5. As a means of minimizing impacts to desert tortoise, an authorized biologist shall survey all work, staging and construction areas, rights-of-way within the proposed project site and water line extension site and remove all desert tortoise found within those areas prior to the start of construction activities (i.e., grubbing, grading, trenching) to ensure maximum avoidance of impacts to desert tortoise and their burrows. All construction staging areas will be enclosed by temporary desert tortoise exclusion fencing and cleared of desert tortoise prior to staging of construction equipment or vehicles. In the alternative, some narrow areas may be intensively monitored in the absence of fencing by a sufficient number of authorized biologists to prevent death or injury to desert tortoises.

Preconstruction surveys shall be undertaken in three phases: (1) the oval track and oval track interior, which would then be surrounded by temporary desert tortoise exclusion

fencing; (2) the alignment of the perimeter desert tortoise exclusion and safety fencing; and (3) the remainder of the project site. The authorized biologist shall submit proof of compliance with this measure, including a survey report, to the CDFG and Service. Temporary exclusion fencing will remain in place until the entire project site has been cleared and the desert tortoise exclusion fencing around the perimeter of the site has been installed.

All desert tortoise burrows, as well as large mammal burrows that could be used by desert tortoise, shall be flagged in work, staging and construction areas, rights-of-way within the proposed project site and the water line extension site. Inactive burrows shall be collapsed within those areas. The authorized biologist shall submit proof of compliance with this measure to the SERVICE and CDFG. Recovery and relocation of desert tortoises encountered during preconstruction surveys shall be performed in accordance with the Translocation Program attached as Appendix A.

DT-6. As a means of minimizing impacts to desert tortoise, Hyundai and the City shall construct desert tortoise exclusion fencing prior to initiating any ground-disturbing activity within an area of the proposed project site. In the alternative, some narrow areas may be intensively monitored in the absence of fencing by a sufficient number of authorized biologists to prevent death or injury to tortoises. All construction staging shall be undertaken in areas of lower quality habitat or areas that exhibit signs of disturbance. All staging areas and fencing shall be inspected and approved by an authorized biologist prior to the initiation of construction activities. Additionally, an authorized biologist will be present during all construction activities to inspect the staging areas on a regular basis and to inspect the underside of vehicles prior to moving. Proof of compliance with this measure shall be verified by an authorized biologist and shall be submitted in writing to the Service and the CDFG.

DT-7. As a means of minimizing impacts to desert tortoise, Hyundai and the City shall have an authorized biologist present throughout the construction period to monitor removed and relocated desert tortoises and to remove any additional desert tortoises encountered during construction for both the Facility and water line extension. The authorized biologist will have the authority to halt construction activities that have the potential to impact a desert tortoise for the purpose of relocating the tortoise. Desert tortoises encountered during construction shall be removed and relocated in accordance with the Translocation Program attached as Appendix A.

DT-8. As a means of minimizing impacts to desert tortoise, Hyundai and the City shall post speed limits of 20 miles per hour (mph) and strictly enforce speed limits within the project construction area for the entire construction period. However, should the air temperature rise above 104°F prior to 12:00 p.m., desert tortoise will seek shelter from the heat and an authorized biologist shall be allowed to suspend the 20 mph speed limit for that day, or until the air temperature falls to 104°F or below. The air temperature is taken 40 cm above ground in the shade and protected from wind.<sup>7</sup>

DT-9. As a means of minimizing impacts to desert tortoise, Hyundai and the City shall prohibit firearms and pets within the proposed project site.

DT-10. As a means of minimizing impacts to desert tortoise during construction, Hyundai and the City shall implement dust control measures on access roads and construction areas.

DT-11. As a means of minimizing impacts to desert tortoise during routine operation and maintenance of the proposed project, Hyundai and the City shall conduct an annual worker education program for the regularly scheduled on-site personnel for the first 5 years of the project life, as described in DT-3; conduct post-construction monitoring as prescribed in DT-13, and have an authorized biologist on call to remove and relocate any desert tortoise encountered during the 5 years following completion of construction. Hyundai also shall maintain the security and desert tortoise exclusion fencing throughout the life of the proposed project.

**d. Common Raven Management Plan**

RA-1. To minimize impacts to desert tortoise during construction and operation of the Facility, Hyundai and the City shall undertake the following measures to prevent an increase in the common raven (*Corvus corax*) population in the vicinity of the proposed project site and to decrease the attractiveness of the proposed project site to common ravens. The common raven is a known predator on juvenile desert tortoises.

- Hyundai and the City shall implement a trash and litter management program that reduces the availability of solid waste. Trash receptacles on site shall be covered with a solid lid at all times, and instructional signage shall be placed in public areas of the site to encourage proper disposal of trash. Proof of compliance with this measure shall be verified by the authorized biologist and submitted in writing to the Service and CDFG.

- The security fencing and above ground utility structures shall be designed to inhibit common ravens and birds of prey from using them as perch sites. To prevent birds from perching on fenceposts or utility structures, the fenceposts and structures would be topped with nixalite, sharp, intertwined, stainless steel spikes standing at upward angles, with an upright, 8-inch metal spike welded in the center of each fencepost or structure. To prevent birds from perching on the fencing, two flexible wires would be loosely strung between the metal spikes on the fenceposts, with one wire approximately 3 inches above the top of the fence, and the other wire approximately 8 inches above the fence.

- Sources of standing water such as leaking faucets, irrigation lines, stock tanks, or car wash stations shall be avoided and eliminated whenever possible, as these unnatural sources of water may attract common ravens.

- Roadkill wildlife found within the project site shall be immediately removed and properly disposed.

Anti-common raven measures, such as hazing, will be undertaken following construction, and other non-lethal measures shall be undertaken to control the presence of common ravens that are thought to be preying on juvenile tortoises, including the removal of inactive common raven nests within and adjacent to the Facility. Any common raven nest will be removed by a wildlife biologist approved by the Service and CDFG.

**e. Postconstruction Measures**

DT-13. Hyundai and the City shall conduct monthly postconstruction monitoring in the year following construction of the proposed project and annual monitoring for 5 years after construction is complete. Monitoring shall consist of surveys of all operational areas using 30-foot transects to assure 100 percent coverage of the operations area, security and desert tortoise fencing. The operations area shall consist of the oval track and the internal area of the oval track, all paved roads within the project site, and all unpaved roads normally used for operations and maintenance activities in support of the test track, all Facility sites, and the entire perimeter fence. Any desert tortoise encountered during postconstruction surveys shall be processed in accordance with the Translocation Program attached as Appendix A. An authorized biologist shall submit monitoring information to Service and CDFG within 30 days of the completion of the first year of postconstruction monitoring, and annually thereafter. Performance of two consecutive postconstruction surveys during the active period of desert tortoise shall be considered sufficient to declare the site free of tortoise. When the site is declared free of tortoise, no more on-site monitoring or construction worker education shall be deemed necessary. The authorized biologist shall notify the Service and CDFG in writing within 2 weeks of confirming that the site is free of desert tortoise.

The handling of desert tortoises shall be in compliance with Service and CDFG protocols and with the Translocation Program, attached as Appendix A. All desert tortoises shall be processed in accordance with the specifications provided in the Translocation Program. Should any desert tortoise be encountered during postconstruction surveys, the authorized biologist shall notify the Service and CDFG within 24 hours.

DT-14. Hyundai and the City shall have an authorized biologist on call to remove any desert tortoise encountered during the five years following construction. All regularly scheduled on-site personnel shall be instructed, as part of the worker education program, on the protocol for contacting the authorized on-call biologist to remove any desert tortoise encountered in a work area.

DT-15. Hyundai and the City shall maintain the security/desert tortoise exclusion fencing and rain gauges, throughout the life of the project. Hyundai and the City shall inspect the security/desert tortoise exclusion fencing and rain gauges on a monthly to twice-monthly schedule during the first year following commencement of project construction, and monthly throughout the life of the project unless Service and CDFG concur that fence inspection may occur less frequently, and shall replace or repair the fencing and gauges as necessary to exclude desert tortoises from the project site. An approved biologist shall

submit annual inspection reports to the Service and CDFG. A copy of the annual inspection shall be retained on site and shall be available for inspection by the Service and CDFG within 2 working days of a request for review.

#### **f. Compensation**

Compensation for incidental take of desert tortoise has been developed through coordination with the Service and CDFG, and will benefit the tortoise by placing into conservation 3,386.5 acres of desert tortoise habitat and by translocating the resident population to lands within or adjacent to the Desert Tortoise Research and Natural Area (DTRNA). The DTRNA is a desirable location due to higher quality of habitat, management policies designed specifically for the tortoise, and a preexisting population of tortoise that share similar genetic origin. Further, the translocation plan provides for scientific study of the effects and effectiveness of translocation as a conservation tool and could have valuable applications for tortoise populations.

Impacts to desert tortoise habitat, and required mitigation acreage to compensate for those impacts, were determined as follows: 4,498 acres of habitat from which the desert tortoise will be excluded following fencing, plus 8.5 acres of impact outside of the project description for the new access road, minus 1,140 acres of land previously mitigated through the LTA, that for a total mitigation requirement of 3,366.5. Impacts to approximately 1,140 acres of desert tortoise habitat within the project site previously were mitigated as part of the Western Mojave Land Tenure Adjustment Project (LTA), a private party land exchange with BLM. By exchanging publicly held lands for private lands, the LTA Project provided a means to consolidate large areas of sensitive habitat into public ownership. The Record of Decision (ROD) for the LTA Project was issued following completion of consultation under Section 7 of the ESA, between BLM and USFWS, and issuance of a Biological Opinion dated September 4, 1998.<sup>4</sup> The ROD for the adopted LTA Project states,

The desert tortoise and Mohave ground squirrel, having previously undergone consultation and conference, will not need additional consultation or conferences unless significant change in their status, habitat, or potential impacts to them from implementation of the LTA Project becomes apparent. Both Federal and State wildlife agencies concur that the implementation of the LTA Project results in a net benefit to both species through consolidation of manageable habitat.

The 1990 Biological Opinion indicated that land owners participating in the exchange program would be exempt from the need to obtain a Section 10(a)(1)(B) permit from the USFWS under the ESA. On September 10, 1998, the USFWS issued a second Biological Opinion clarifying that developers of land acquired through the LTA Project must obtain an incidental take permit and implement measures to minimize the extent of incidental take of desert tortoises.

The September 10, 1998 Biological Opinion specifically addressed the land exchange between BLM and Catellus Development Corporation (Catellus). The land exchange

included the addition of approximately 816 acres known as the I-15/SH-58, I-15/SH-58 Connector, Barstow, and Barstow Heights properties to the LTA Project area. Catellus received 4,810 acres of BLM lands in exchange for 14,800 acres of critical habitat of the desert tortoise in the Black Mountain and Fossil Canyon areas, north and northwest of Barstow. The Black Mountain and Fossil Canyon areas are both within the known range of the Mohave ground squirrel.

Three of the parcels, totaling 1,140 acres, exchanged to Catellus are located within the proposed project area (Figure 2-1 of the EA/HCP) (USGS 7.5-minute series California City topographic quadrangle, T11N, R11W, south half of Section 10, Section 14, and east third of east half of Section 22). In the 1998 Biological Opinion, the USFWS determined that although developers of exchanged lands are required to obtain a Section 10(a)(1)(B) permit from the USFWS for incidental take of desert tortoises, developers of exchanged lands are not required to provide any additional compensation in the form of land. Consequently, habitat compensation for impacts to desert tortoise on those 1,140 acres is not required under the terms of the Biological Opinion for Western Mojave Land Tenure Adjustment Project (6844440 (CA-063.50)) (1-8-98-F-60R), dated September 10, 1998.

These conservation measures, as described, adequately minimize and mitigate the impacts of the project on the desert tortoise for the following reasons: (1) the Hyundai project site comprises a minor portion of the range of the desert tortoise; (2) a small number of desert tortoises, approximately 30, would be displaced by the proposed project; (3) effective impact avoidance and minimization measures have been proposed for the desert tortoise, including preconstruction surveys to avoid killing or injuring animals from construction activities; (4) take levels for the desert tortoise are expected to be low; and (5) loss of habitat from project construction and operation will be adequately compensated by protecting and enhancing high-quality habitat adjacent to reserve lands that will be specifically managed in perpetuity to benefit the desert tortoise.

The Service has previously and continues to use the compensation ratio of 1:1 to offset impacts to the desert tortoise on lands classified as Category III. This ratio was based on the November 1991 report "Compensation For The Desert Tortoise"<sup>9</sup> approved and signed by the Service.

The Applicants also considered five alternatives to the proposed project to determine whether the proposed project has, to the maximum extent practicable, minimized and mitigated the impacts of the taking. Following is a description of the additional alternatives the Applicants considered to the proposed action alternative.

This section provides a description and analysis of the reasonably practicable alternatives available to the Service. Alternatives for the project were developed in accordance with Section 10(a) of the Endangered Species Act and the National Environmental Policy Act. Five alternatives to issuance of a Section 10(a)(1)(B) permits for the proposed project were analyzed: (1) a no action alternative pursuant to which the Service would not issue Section 10(a)(1)(B) permits for an automotive test course facility; (2) an On-Site Fencing Alternative; (3) issuance of Section 10(a)(1)(B) permits for an alternative site in San

Bernardino County; (4) issuance of a Section 10(a)(1)(B) permits for an alternative site in Riverside County; and (5) a More Mitigation Alternative. Only a single no action alternative was considered because the proposed project site and the two alternative site locations are potentially occupied by species listed as endangered or threatened pursuant to the Act.

### **NO ACTION ALTERNATIVE**

Under the no-action alternative, the Service would not issue Section 10 incidental take permits for the Facility. The proposed project would not be developed, and the objectives of the proposed project would not be met. Existing conditions at the proposed project sites analyzed in this document would remain unchanged. Without issuance of the incidental take permits, the HCP would not be implemented and compensation acreage of Class I and Class II desert tortoise habitat east and south of the Desert Tortoise Research and Natural Area would not be purchased and transferred into conservation.

### **Ability to Achieve Project Goals**

Without issuance of the incidental take permits, Hyundai would be unable to complete the safety testing required to support new production vehicles, Table 5.1-1, *Summary of Adequacy of Proposed Project and Alternatives to Attain Project Objectives*.

### **ON-SITE FENCING ALTERNATIVE**

The on-site fencing alternative would be similar to the proposed project. As part of the on-site alternative, approximately 12 miles of three-stranded barbed-wire fencing would be installed around the proposed project site for security. The barbed-wire fence would be constructed along the proposed property boundary to mark the edge of the project site and deter trespassing. Security fencing and desert tortoise exclusion fencing would be constructed around the outer perimeter of the oval test course and surrounding swales and berms. Entry gates would be provided in the fence at the designated road entry point for the oval test course, and at three specified points along the oval test track. The three additional gates would be used only by authorized personnel for situations that require rapid access to the interior of the oval test track. Desert tortoise exclusion fencing also would be constructed along the east and west sides of the Hill-Up Road.

To facilitate movement across the project site, wildlife undercrossings would be constructed. One undercrossing would be constructed at a point along the southern entry road within the project boundaries. The position of the wildlife undercrossing would be determined by topography so as to provide a more natural route for wildlife to avoid crossing the entry roadway. Wildlife undercrossings would also be positioned along the Hill-up Road to facilitate the movement of wildlife across the eastern portion of the project area. Each wildlife undercrossing would consist of a 4-foot-high by 6-foot-wide corrugated metal structure. The entry points for the wildlife undercrossing would be reinforced with natural rock and planted with native vegetation to provide shade and cover near the entry points.

Hyundai and the City would conduct preclearance surveys for the oval track and its interior, areas adjacent to the test track on the proposed project site and all areas proposed for grading; would relocate desert tortoise occupying those areas; and would mitigate all grading impacts, the oval track, and the interior of the track.

### **Ability to Achieve Project Goals**

The probability of ongoing take of desert tortoise during project operations due to exclusion fencing failure, recruitment of desert tortoise into the site, or failure to completely relocate residents in the site was determined to be too high for this alternative to be utilized.

### **ALTERNATIVE B-1: SAN BERNARDINO COUNTY SITE**

In the process of evaluating potential sites for development of the proposed project, Hyundai considered a site of approximately 4,340 acres, occupying nearly seven sections, located in an unincorporated area of San Bernardino County. The San Bernardino County Site Alternative is within the Landers USGS 7.5-minute series topographic quadrangle adjacent to the southwestern boundary of the U. S. Marine Corps Air Ground Combat Training Center, east of State Highway 247, and north of the City of Landers (Figure 5.3-1, *Regional Location of the San Bernardino County Alternative Site*). The San Bernardino County Site Alternative is accessible from State Highway 247 by the Reche Road exit, running east-west, approximately 3 miles to the south.

### **Ability to Achieve Project Goals**

The San Bernardino County Site Alternative would meet only five of the objectives of the proposed project: the land would be cost-effective to purchase, the site would be within 2 miles of available utility connections, impacts to designated critical biological habitat would be avoided because no such habitat exists at the San Bernardino County Site Alternative, and no major utility transmission lines or easements cross the site. The other 12 objectives of the Facility would not be met by this proposed alternative, as shown in Table 5.1-1 of the EA/HCP. The San Bernardino County Site Alternative would not provide the following: site security by locating the test course outside of the viewshed of the nearest public access, accessibility to an improved roadway, a site size of at least six sections, provide a geotechnically suitable site (low rupture potential), a site of less than 2 percent slope to accommodate 1 percent slope build-out, a site located outside 100-year flood plain, provide a site located within 15 miles of existing urban areas but no less than 3 miles from residential uses, a site located within a City corporate boundary for access to services, a site located within restricted air space to facilitate security, a site at least 2 miles from sensitive receptors, a site suitable for the construction of a test course, or a site not affected by significant drainage courses.

### **ALTERNATIVE B-2: RIVERSIDE COUNTY SITE**

In the process of evaluating potential sites for development of the proposed project, the project applicant considered a site, occupying nearly seven sections, located in an unincorporated area of Riverside County. The Riverside County Alternative Site is located in Riverside County within the Indio USGS 7.5-minute series topographic quadrangle north of Interstate 10 and east of the community of Indio, California (Figure 5.4-1 of the EA/HCP, *Regional Location of the Riverside County Alternative Site*). The Riverside County Site Alternative would not provide the following: site security by locating the facility outside of the viewshed of the nearest public access, provide accessibility to an improved roadway, maintain a site size of at least six sections. Provide a site with cost-effective land value, provide a geotechnically suitable site (low rupture potential), provide a site with access to utilities within 2 miles. Provide a site located within 15 miles of existing urban areas, but no less than 3 miles from residential areas, provide a site located within restricted air space to facilitate security, avoid or minimize impacts to critical habitat, provide a site suitable for the construction of a test course, provide a site with no major crossings of utility lines or easements, provide a site not affected by significant drainage courses, or allow for economically feasible mitigation.

### **Ability to Achieve Project Goals**

The Riverside County Site would meet only three of the objectives of the proposed project: the land would be located outside of the 100-year FEMA floodplain, located within the city corporate boundary providing access to services, and would be at least 2 miles away from sensitive receptors. The other 14 objectives of the facility would not be met by this alternative, as shown in Table 5.1.1 of the EA/HCP. The Riverside Site would not: provide site security by locating the test course outside of the viewshed of the nearest public access; provide accessibility to an improved roadway; maintain a site size of at least six sections; provide a site with cost-effective land value; provide a geotechnically suitable site (low rupture potential); provide a site of less than 2 percent slope to accommodate 1 percent slope build out; provide a site with access to utilities within 2 miles; provide a site located within 15 miles of existing urban areas, but no less than 3 miles from residential uses; provide a site located within restricted air space to facilitate security; avoid or minimize impacts to designated critical habitat; provide a site suitable for the construction of a test course; provide a site with no major crossings of utility transmission lines or easements; provide a site not affected by significant drainage course. In addition the Riverside Site would not allow for economically feasible mitigation.

### **MORE MITIGATION ALTERNATIVE**

The More Mitigation Alternative would be similar to the proposed project, and would occupy the same project site. The Service would issue a Section 10(a) incidental take permits for desert tortoise. The Facility design would be identical to the proposed project, and would result in unmitigated -impacts to 3,386.5 acres of occupied desert tortoise habitat. As part of the mitigation measures under this alternative, Hyundai and the City would propose compensation for land at a 3:1 ratio. Compensation for 3,386.5 acres of land at 3:1 would result in 10,159.5 acres being purchased, with additional fees

per acre allotted for endowment and enhancement of the purchased lands. Compensation lands would be purchased adjacent to the Desert Tortoise Research and Natural Area, and would be transferred to a third-party conservation organization or CDFG, to be managed specifically for the desert tortoise. The third party or CDFG also would be responsible for enhancement of the compensation lands.

### **Ability to Achieve Project Goals**

This alternative did not meet several of the project's objectives. Purchase of 10,159.5 acres of compensation land and funding enhancement and long management for that amount of acreage would render the proposed project economically infeasible. Hyundai calculated the economic cost of the proposed project based on a cost of \$870/acre for acquisition of the compensation land and \$550/acre for enhancement and long term management of those lands. These amounts were based on recent past costs for acquisition, enhancement and long term management of compensation lands for similarly situated projects. Applying those figures to 10,159.5 acres results in a cost in excess of \$13 million for compensation, which Hyundai has determined would result in a negative return on Hyundai's investment in the project, thereby rendering the project economically infeasible.

Although there are no current plans for development of the site beyond what is described in the project description, dedication of the site as permanent conservation area would prohibit any future development of the remainder of the site.

The project site also would be inadequate as a reserve for the desert tortoise under a conservation easement due to the planned future development of adjacent lands and the construction of desert tortoise exclusion fencing around the perimeter of the project site. Desert tortoise within the fencing would have no connections to adjacent habitat, effectively isolating the habitat within the proposed project area, and the adjacent habitat is zoned for future development, rendering it unlikely to support desert tortoise in the future.

In summary, the proposed action is the most feasible for the Applicants while at the same time providing the most beneficial mitigation and long term conservation for the desert tortoise. To make the finding that the conservation measures included in the EA/HCP minimize and mitigate the impacts of take to the maximum extent practicable, the Service must evaluate the conservation measures in relation to the level of take anticipated and the biological needs of the desert tortoise. The Service concludes that the level of minimization and mitigation provided in the EA/HCP compensates for the impacts of take of the desert tortoise to the maximum extent practicable.

### **3. The Permittees will ensure that adequate funding for the conservation plan and procedures to deal with unforeseen circumstances will be provided.**

As set forth in the *Implementing Agreement*, Hyundai and the City will provide funding to ensure full implementation of all minimization, mitigation, and compensation measures (including purchase, enhancement and long-term management of compensation lands) associated with the issuance of the proposed Section 10(a)(1)(B) incidental take permits. As discussed previously, 4,526.5 acres of desert tortoise habitat on the proposed project site will be impacted by the proposed project. Desert tortoise impacts on 1,140 acres of the previously were mitigated as part of the prior land exchange between Catellus and BLM, pursuant to the Western Mojave Land Tenure Adjustment Project. Hyundai and the City therefore will acquire a total of 3,386.5 acres (3,366.5 acres for the Hyundai facility and 20 acres for the City's proposed water line extension) to compensate for desert tortoise impacts.

**a. ACQUISITION OF COMPENSATION LANDS**

Hyundai and the City will acquire the required compensation lands adjacent to the Desert Tortoise Research and Natural Area. Fee title to the compensation lands will be transferred to CDFG or to a third party approved by Hyundai, the City, the Service and CDFG. If fee title to the compensation lands is held by an approved third party, a conservation easement over the compensation lands will be recorded in favor of CDFG and in a form approved by CDFG.

Prior to the initiation of habitat disturbing activities at the proposed project site, Hyundai and the City will provide financial assurance to the Service and CDFG to secure the performance of their respective obligations under the EA/HCP not later than 12 months after permit issuance. The financial assurance shall consist of establishing a trust or escrow account, furnishing an irrevocable letter of credit, or providing such other form of obligation as may be approved by the Service and CDFG, in the amount of \$4,639,505. This figure was calculated as follows: \$2,946,255 for acquisition of 3,386.5 acres, at an average of \$870/acre; and \$1,693,250 to provide the capital for an enhancement and endowment fund to manage the compensation lands in perpetuity, at a cost of \$500/acre. These figures were calculated in part based on a Habitat Planning in Perpetuity Property Analysis Record (PAR Analysis) prepared February 25, 2003 for a pipeline project located south of the proposed project site (see appendix F of the EA/HCP, *Desert Tortoise Preserve Committee Property Analysis Record*). Because the pipeline project acquired compensation lands in the same area from which Hyundai and the City are intending to acquire compensation lands, it was determined that the pipeline PAR Analysis provided an adequate basis for estimating the land acquisition and long term management costs for the project. Management was also based in part on CDFG's experience and management activities in the Western Mohave Desert and San Joaquin Valley. This estimate is highly consistent with CDFG costs. Further information for estimated management costs of the compensation lands can be found in Ch. 8 of the EA/HCP. All enhancement activities on the acquired compensation lands will be determined and agreed to by Hyundai, the City, the Service, and CDFG on a parcel by parcel basis prior to the close of escrow, and will be performed or fully funded by Hyundai and the City within nine (9) months of close of escrow. It is anticipated that in most cases, minor enhancement of the compensation lands will be necessary due to the

isolated location of the proposed compensation lands and the lack of development in the area and will be agreed upon by Hyundai, the City, the Service, CDFG and DTTPC.

Recent information on the purchase price of real estate in the California City area ranges from a small parcel at a cost of \$1,000 per acre to larger parcels for \$550 per acre.

Hyundai has taken steps to determine the availability of parcels from willing sellers within the area east of the DTRNA. This availability is greater than the acreage identified as compensation acreage in the HCP. In addition, Hyundai has secured the services of a real estate brokerage firm to assist in the acquisition process. Hyundai anticipates that it will obtain purchase agreements from willing sellers for the required compensation lands in less time than one year from issuance of the section 10(a)(1)(B) permit.

The security funding shall be relinquished to Hyundai and the City upon performance of their respective habitat compensation obligations. If the security is provided by the funding of an escrow account, the joint escrow instructions of the Service, CDFG, Hyundai and the City shall provide for the use of the escrow funds for the performance of the habitat compensation obligations of Hyundai and the City, respectively.

**b. INCIDENTAL TAKING MINIMIZATION AND MITIGATION**

The measures for avoiding or otherwise minimizing incidental take will be implemented through the performance of the contracts entered into by Hyundai and the City for the construction, operation, and maintenance of the proposed project. Copies of the contracts between Hyundai and the City will be provided to the Service and CDFG upon project permit approval and agreement on final permitting measures. The costs of such implementation will be embedded in the contract rates charged to Hyundai and the City for the overall services provided under the respective contracts. Prior to the initiation of the construction of the proposed project, and thereafter on an annual basis, Hyundai and the City will provide to the Service and CDFG a written, certified statement that Hyundai and the City have budgeted for all such implementation costs for the annual period covered by the statement.

**c. UNFORESEEN AND CHANGED CIRCUMSTANCES**

The Service finds that the HCP includes procedures to address unforeseen circumstances. The HCP and IA include procedures for determining the occurrence of both changed circumstances and unforeseen circumstances. Identified changed circumstances include earthquakes, wildfire, flood, sabotage, airplane or transportation accidents, test automobile accidents, and disease, predation, or impacts of exotic species. Because all desert tortoises will be removed from the project site, it is unlikely that any additional impacts to desert tortoise could occur on the project site due to Changed Circumstances.

Accordingly, it is not necessary to provide any funding assurances for Changed Circumstances on the site. Funding for responses to Changed Circumstances that could occur on the compensation lands is included in the enhancement and endowment amounts.

Hyundai and the City provided the Service with the final HCP for the Hyundai Test Track Facility (Sapphos 2004). After reviewing the final HCP, the Service has determined that Hyundai and the City have ensured adequate funding for the reasons described in this section of the Findings.

#### **4. The taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild.**

The Service finds that the taking to be authorized under the proposed permits will not appreciably reduce the likelihood of the survival and recovery of the desert tortoise in the wild. The ESA's legislative history establishes the intent of Congress that the issuance criteria be identical to a finding of "no jeopardy" pursuant to section 7(a)(2) of the ESA and the implementing regulations pertaining thereto (50 CFR 402.02). As a result, the Service has reviewed the HCP under the Act. In a Biological Opinion (Service 2004), which is incorporated herein by reference, the Service has concluded that the issuance of the proposed Permits are not likely to jeopardize the continued existence of the desert tortoise. Critical habitat for the desert tortoise will not be destroyed or adversely modified as critical habitat is not located within the proposed project site or compensation area. The Service's finding that the desert tortoise will not be jeopardized as a result of the take authorized under the proposed Permits is discussed in detail in the Service's Biological Opinion and discussed below.

Issuance of the permits will directly and indirectly affect approximately 30 desert tortoises within the project area. It will also indirectly affect desert tortoises located immediately adjacent to the project area. The translocation program of the proposed action will directly and indirectly affect desert tortoises at the translocation site and those at the control site. The proposed action will result in the removal of 4526.5 acres of occupied desert tortoise habitat. However, it will result in the acquisition of 3386.5 acres of desert tortoise habitat that will be managed for the desert tortoise in perpetuity.

Potential direct effects to the desert tortoise that may result from construction of the proposed Facility at the project site include injury or mortality to all size classes of desert tortoises from crushing by construction and access vehicles and heavy equipment. Occupied and unoccupied burrows of desert tortoises may be collapsed by these vehicles and heavy equipment, and desert tortoise eggs may also be crushed. Other potential direct effects from the operation of the Facility include injury and mortality to eggs and desert tortoises not found during translocation efforts. The injury and mortality would result from crushing by vehicles and equipment during the operation and maintenance of roadways, tracks, buildings, and infrastructure at the Facility. Adverse physiological effects to desert tortoise would occur from their capture to move them from the path of vehicles and heavy equipment. These include stress from handling and loss of stored

water in their bladders through urination, if handled improperly. This stored water is important to desert tortoise to help them survive dry seasons and years.

Indirect effects at the proposed project site include destruction and modification of desert tortoise habitat used for feeding, breeding, and shelter from the establishment of roadways, tracks, buildings, and other above ground and underground structures and support facilities. Fragmentation of desert tortoise habitat used for feeding, breeding, and shelter would occur by spatially distributing approximately 850 acres of the Facility's footprint across 4,400 acres of the project site.

Desert tortoises immediately adjacent to and those whose home ranges straddle the boundary of the proposed project may lose portions of their home ranges that they use for foraging and shelter locations. Some may lose past and future mates. Thus, the reproductive potential for these desert tortoises may be reduced.

The translocation study will affect three desert tortoise population cohorts. All three cohorts are part of the western limits of distribution of the west Mojave population of the desert tortoise. The largest unit comprises the project site animals and will represent home ranges that are spread over approximately seven square miles. The translocation site will include home ranges of animals in a two square mile area and the control site will include home ranges of approximately 15 animals. The translocation study will include placement of radio transmitters on all three population cohorts. Radio transmitters will be glued to the carapace of the animals and may affect those animals in several ways. The process of placing the transmitter on a desert tortoise requires handling for about 30 minutes. This handling places physiological stress on the desert tortoise moving them around in ways to which they are not accustomed. They exhibit a defensive behavior and withdraw into their shell. This handling may result in the voiding of their bladder reducing their water reserve.

The transmitters can impede each animal's ability to negotiate terrain and burrows. The transmitters may also increase the vulnerability of animals to predation by affecting their ability to successfully maneuver during escape and evasion situations. Transmitters may interfere with male-male combat during mating season. A desert tortoise with a transmitter that has flipped over has greater difficulty righting itself. If unsuccessful in righting itself in a short period of time, the desert tortoise will die from exposure to predation, weather elements, or crushing of the lungs by other internal organs. The weight of the transmitter may cause additional stress to the desert tortoise in that it must carry up to an additional 10 percent of its body weight for four years. This places additional physiological demands on the desert tortoise by using more food and water to transport this additional weight.

The translocated and control desert tortoises will also be subjected to blood tests and nasal lavage tests. This activity will create physiological stress for the desert tortoise by restraining the animals and placing a needle in the brachial artery or jugular vein to withdraw blood and flushing a solution into the nares and collecting the exudate.

Potential effects to translocated desert tortoises include physiological stress from handling during translocation to prevent mortality or injury from construction activities; reduction in or temporary curtailment of reproduction if courtship and mating behavior of free-ranging tortoises at the translocation site is modified by the translocation of desert tortoises; spread of disease between host and translocated animals; increased risk of predation if translocated desert tortoises are unable to find cover or appropriate burrow habitat in a timely manner; increased susceptibility of the translocated and host desert tortoises to disease caused by stress from translocation where competition with the host population and/or adaptation to new and unfamiliar territory.

Effects to host desert tortoises are similar to those of the translocated desert tortoises with respect to mating and reproduction, disease transmission, and disease outbreak.

Implementation of the Hyundai HCP will remove 4526.5 acres of occupied desert tortoise habitat in the West Mojave Desert. This habitat has been classified as Category III desert tortoise habitat by the Bureau and is not within or adjacent to a recovery unit or Desert Wildlife Management Area (DWMA). Development and fencing of the proposed project site will also fragment existing habitat. The project site is surrounded by desert tortoise habitat. The habitat to the south of the proposed project is already fragmented by State Highway 58. This highway also serves as a barrier to the movement of tortoises to and from habitat located south of the project site. Additional effects include impeding movement of desert tortoise and gene flow between those desert tortoise located in habitat west of the proposed action with those located in habitat east of the proposed action. The proposed action does not block movement and gene flow because of the presence of suitable desert tortoise habitat north of the project site.

The proposed compensation of 3386.5 acres of desert tortoise habitat will have a beneficial effect as it will result in the enhancement and management of this habitat for the benefit of the desert tortoise in perpetuity. The location of the compensation lands is in an area identified for future acquisition of and management for the desert tortoise. This area is adjacent to the Fremont-Kramer DWMA and critical habitat. Thus the compensation lands will contribute to long-term conservation of the species by adding additional lands to this management unit and reducing the fragmentation in land ownership and use that currently exists.

There is low potential that the proposed action would result in direct mortality or injury to any individual desert tortoises because of the implementation of the protective measures proposed by Hyundai. Therefore, the proposed activities are not likely to appreciably affect or reduce the ability of the desert tortoise to survive and recover. Surveys performed in May 2003 located 8 live desert tortoises (EA/HCP Appendix B, *May 2003 Desert Tortoise Survey Report*). Using guidance provided by the Service's Desert Tortoise Recovery Plan, it was estimated that 20-34 tortoises are present on-site. These tortoises will be relocated from the project site as described in the Translocation Program (Appendix A to the EA/HCP).

The desert tortoise population in this region of the Mojave Desert is not expected to incur significant impacts from construction and operation of the Facility and consequent taking of the tortoise located within the proposed project site. Desert tortoise currently located within the proposed project site will be moved to an area outside of the proposed site, and hence would remain in the area's breeding population of desert tortoise. Maintaining the proposed project's desert tortoises as part of the area's breeding population is important because the Desert Tortoise Recovery Plan<sup>8</sup> considers a population of less than 10 desert tortoise per square mile, as is found on the proposed project site, to be at a risk of extinction from factors such as difficulty in finding mates, or severe population fluctuations due to environmental conditions such as droughts. Translocating desert tortoises from the proposed project site to an area of open space and connectivity to a site with a viable, genetically compatible resident population may increase survivorship.

Regional effects are not anticipated to be significant. The proposed project site is located within the City limits and eventually will become isolated from adjacent suitable habitat as the City continues to grow and expand. This would prohibit movement of animals from the project site to adjacent habitat, as well as prohibit immigration of animals into the project site, thereby genetically isolating the population. The project site is not located within a critical habitat unit, and therefore would not benefit from agency habitat management policies designed to promote population growth in areas designated as critical habitat.

Implementation of the HCP will not appreciably reduce the likelihood for the survival and recovery of the desert tortoise for the following reasons: (1) the Hyundai project site comprises a minor portion of the range of the desert tortoise; (2) a small number of desert tortoises, approximately 30, would be displaced by the proposed project; (3) effective impact avoidance and minimization measures have been proposed for the desert tortoise, including preconstruction surveys to avoid killing or injuring animals from construction activities; (4) take levels for the desert tortoise are expected to be low; and (5) loss of habitat from project construction and operation will be adequately compensated by protecting and enhancing high-quality habitat adjacent to reserve lands that will be specifically managed in perpetuity to benefit the desert tortoise.

**5. Other measures, required by the Director of the Service as necessary or appropriate for purposes of the EA/HCP, will be met.**

The Service finds that all additional measures required by the Service as necessary or appropriate for the HCP are included in the EA/HCP, IA, and/or Permits. In particular, the IA, an agreement among the Service, CDFG, Hyundai, and the City that governs implementation of the EA/HCP, binds the Permittees to fully implement and fund the implementation of the HCP.

**6. The Service has received the necessary assurances that the EA/HCP will be implemented.**

The Service finds that the EA/HCP and the IA provide the necessary assurances that the HCP will be carried out by Hyundai and the City. By accepting their individual permits, Hyundai and the City are bound to fully implement the provisions of the HCP in accordance with the IA.

#### **IV. Species Assurances - Analysis**

The Department of the Interior's "no surprises" regulations [50 CRF §17.22(b)(5), §17.32(b)(5), §222.22(g)] provide assurances to non-federal landowners participating in Habitat Conservation Planning that, except under unforeseen circumstances, no additional mitigation beyond that in the HCP will be required from an HCP permittee without its consent for species adequately covered by a properly implemented HCP. Species are adequately covered if the HCP addresses the conservation of the species and if all section 10 issuance criteria have been met.

The biological opinion prepared by the Service includes our assessment of the desert tortoise which the Applicants have requested coverage for in their permit application. In this opinion, we determined that the desert tortoise is adequately conserved by the HCP. Furthermore, in section III of these findings, we determined that the section 10 criteria have been met.

**V. General Criteria and Disqualifying Factors - Findings**

The Service has no evidence that the permit applications should be denied on the basis of the criteria and conditions set forth in 50 CFR §13.21(b)-c).

**VI. Recommendation on Permit issuance**

Based on the foregoing findings with respect to the proposed action, I recommend approval of permits TE-080999-0 and TE-082034-0 to Hyundai Motor America and the City of California City for incidental take of the desert tortoise in accordance with the HCP and its supporting IA.

Michelle B. Fin

21 JANUARY 2004

ACTING  
Deputy Manager  
California/Nevada Operations Office

Date

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