

# DESERT TORTOISE COUNCIL 4654 East Avenue S #257B Palmdale, California 93552 www.deserttortoise.org eac@deserttortoise.org

Via email only

7 March 2019

Commissioners Michael Naft, Marilyn Kirkpatrick, Larry Brown, Lawrence Weekly, Tick Segerblom, Justin Jones, and Jim Gibson Clark County Board of Commissioners 500 S Grand Central Parkway, 6th Floor Las Vegas, Nevada 89155 ccdista@ClarkCountyNV.gov

Subject: Clark County Board of Commissioners Resolution to Support the Designation of the Three Off-Highway Vehicle Recreation Areas on Bureau of Land Management Land through Federal Legislation

Dear Commissioners:

The Desert Tortoise Council (Council) is a non-profit organization comprised of hundreds of professionals and laypersons who share a common concern for wild desert tortoises and a commitment to advancing the public's understanding of desert tortoise species. Established in 1975 to promote conservation of tortoises in the deserts of the southwestern United States and Mexico, the Council routinely provides information and other forms of assistance to individuals, organizations, and regulatory agencies on matters potentially affecting desert tortoises within their geographic ranges.

We appreciate this opportunity to provide comments on the above-referenced project. Given the location of the proposed project in habitats likely occupied by Agassiz's desert tortoise (*Gopherus agassizii*) (synonymous with "Mojave desert tortoise"), our comments pertain to enhancing protection of this species should Clark County proceed with the establishment of these new recreation areas.

We recently received information that the Board of Commissioners of Clark County, Nevada (Board) is considering the adoption of a resolution to (1) support the establishment of three offhighway vehicle (OHV) recreation areas on Bureau of Land Management (BLM) land in Clark County, Nevada, through federal legislation, and (2) require that the BLM complete travel and transportation planning and recreation management plans for the newly designated OHV recreation areas within two years of the date the bill is signed into law. In the resolution, the Board proposes to ask the BLM to establish the 40,754-acre Sandy Valley OHV recreation area, the 50,080-acre Nelson Hills OHV recreation area, and the 19,811-acre Laughlin OHV recreation area.

From the information we received on these OHV recreation areas, it appears that two of the areas border Tortoise Conservation Areas (TCAs)/Critical Habitat Units (CHUs) for the federally threatened Mojave desert tortoise. The third OHV recreation area is located on the west side of the large-scale translocation study site (LSTS) for the tortoise. The locations of these three OHV recreation areas would have substantial adverse effects to these tortoise populations and their habitats. Vehicle use and OHV activity is well documented to have a myriad of adverse effects to the Mojave desert tortoise, its habitat, and other wildlife species. In addition, the BLM has not demonstrated that it has developed and implemented a successful management and enforcement program for OHV recreation areas in the Mojave Desert. Because of this, OHV recreation activities at BLM designated OHV recreation areas "spill over" to adjacent areas and result in adverse effects to additional areas including loss of public resources such as the tortoise, other wildlife species, their habitats, soils, vegetation, and air quality (please see "Effects of Vehicle Use" below).

We would like to take this opportunity to inform the Board about the direct, indirect, and cumulative adverse effects to the Mojave desert tortoise and other wildlife species from the designation and use of these three OHV recreation areas it is considering supporting in its resolution. The Nelson Hills OHV recreation area is the doughnut hole within the surrounding El Dorado TCA/CHU for the tortoise. The Laughlin OHV recreation area is adjacent to the southern border of El Dorado TCA/CHU and appears to be adjacent to part of the eastern border of Chemehuevi TCA/CHU in California. The Sandy Valley OHV recreation area is along the west boundary of the LSTS. This last OHV recreation area location would confine the tortoises in the LSTS between Interstate 15 to the east, the proposed OHV recreation area to the west, and the Stateline/Primm/solar developments to the south. This confinement means substantially reduced connectivity between the LSTS population and adjacent populations. Given its small size and low density of tortoises because of human development and activities, stochastic events would likely cause this population to be extirpated in the near future.

## **Effects of Vehicle Use**

The presence of roads even with low vehicle use has several adverse effects on the Mojave desert tortoise and its habitats and other wildlife species and their habitats. These include the deterioration/loss of wildlife habitat, hydrology, geomorphology, and air quality; increased competition and predation (including by humans); and the loss of naturalness or pristine qualities. There are five major categories of primary road effects to the tortoise and many other wildlife species: (1) wildlife mortality from collisions with vehicles, collecting, and vandalism; (2) hindrance/barrier to animal movements thereby reducing access to resources and mates; (3) degradation of habitat quality; (4) habitat loss caused by disturbance effects in the wider environment and from the physical occupation of land by the road; and (5) subdividing animal populations into smaller and more vulnerable fractions (Jaeger et al. 2005a, 2005b, Roedenbeck et al. 2007). The first is a direct adverse effect; the remaining four are indirect adverse effects.

Specific indirect adverse effects for the Mojave desert tortoise include increased human access causing disturbance of species' behavior; increased predation from human subsidized food, trash, and injured/dead wildlife; spread of invasive plant species resulting in poor nutrition for tortoises and reduced reproduction and recruitment; increased fire frequency: and a continuation/expansion of this cycle. In addition, there are cumulative adverse effects from road establishment and vehicle use to the tortoise including connectivity within and between populations and OHV recreation areas acting as a "population sink" for nearby populations. Roads and trails of any kind create habitat edges (Reed and others, 1996). In many instances, these edge effects extend well beyond the road's actual footprint, and for some species, the effects may extend well into the desert interior. Von Seckendorff Hoff and Marlow (2002) indicate that this effect may extend as far as 2.2 miles from the road edge. Thus, the adverse effects of using an OHV recreation area extend much farther than the boundary of the area's official designation.

Given the documented direct, indirect, and cumulative adverse effects of vehicles and the road effect zone for wildlife species, especially those with certain be behaviors or characteristics that include the Mojave desert tortoise (Boarman and Sazaki 1996, Brocke et al. 1988, Carr and Fahrig, 2001, Forman et al. 1997, Forman 2002, as cited in van der Ree et al. 2011, Gibbs and Shriver, 2002, Gucinski et al. 2001, Jaeger 2002, Jaeger et al. 2005a, 2005b, Jalkotzy et al. 1997, Karraker and Gibbs, 2011, Lovich and Bainbridge 1999, Nafus et al. 2013, Noss 1993, Roedenbeck et al. 2007, Rytwinski and Fahrig, 2011, 2012, van der Ree et al. 2011, and von Seckendorff Hoff and Marlow 2002), these data do not support the placement of these three OHV recreation areas adjacent to areas managed for the tortoise.

We respectfully remind the Board of its commitment in its incidental take permit from the U.S. Fish and Wildlife Service (USFWS) and associated habitat conservation plan. "Clark County's Multi-Species Habitat Conservation Plan's (MSHCP) Section 10(a)(1)(B) incidental take permit covers all non-Federal (private, municipal, State) lands within Clark County and N[evada] D[epartment] O[f] T[ransportation] activities in areas within Clark, Nye, Lincoln and Esmeralda Counties..." "The MSHCP uses a reserve system consisting of public land (primarily Federal, [mostly BLM]) areas defined by their kinds and levels of management as it affects Covered Species including the Mojave desert tortoise. The goal for each Covered Species [which includes the Mojave desert tortoise] is no net unmitigated loss or fragmentation of habitat, primarily within Intensively Managed Areas and Less Intensively Managed Areas, or Multiple Use Management Areas where a substantial proportion of the species habitat occurs within Multiple Use Managed Areas. In addition, the MSHCP has a general goal of stable or increasing populations of Covered Species. Measurable biological objectives broadly include (a) maintenance of the long-term net habitat value of the ecosystems in Clark County with a particular emphasis on Covered Species, and (b) recovery of listed species and conservation of unlisted Covered Species."<sup>1</sup>.

We believe the adoption of the subject resolution to support these three OHV recreation areas would not send a message to the public that Clark County is not serious about attaining the goals of the MSHCP. We request that the Board conduct an analysis of how supporting this resolution will contribute to accomplishing the goals of the MSHCP for the tortoise and other Covered Species.

<sup>&</sup>lt;sup>1</sup> (Clark County website <u>http://www.clarkcountynv.gov/airquality/dcp/Pages/faq.aspx#Q2</u>)

### **BLM's Record on Managing OHV Recreation Areas**

In 2009, the General Accounting Office (GAO) released a report on OHV management on federal lands. It included a discussion on current OHV management challenges faced by the BLM. The GAO reported that the BLM is directed by two executive orders (E.O. 11644 and 11989) to control and direct the use of OHVs on federal lands in a manner that protects the resources of those lands, promotes the safety of all users, minimizes conflicts among federal land uses, communicates with the public about available OHV opportunities, prescribes appropriate penalties for violating OHV regulations, and monitors the effects of OHV use. In making designations of OHV recreation use, BLM is directed to minimize damage to the soil, watersheds, vegetation, or other resources of the federal lands; harassment of wildlife or significant disruption of wildlife habitats; and conflicts between the use of OHVs and other types of recreation. BLM is directed to close areas or trails if OHVs are causing considerable adverse effects.

The GAO found that BLM reported an increase in unauthorized OHV use and OHV-related environmental adverse effects identified as the most widespread were soil erosion, damage to vegetation, wildlife habitat fragmentation; and the spread of invasive species. Most BLM field official reported they cannot sustainably manage existing OHV areas; sustainable management would include having the necessary human and financial resources available to ensure compliance with regulations (e.g., enforcement of regulations), educate users, maintain OHV use areas, and evaluate the existing OHV program. In 2008, BLM had 195 uniformed law enforcement officers, which is an average of about one officer for every 1.2 million acres of land. Because of the distance a law enforcement officer must travel, it can take several hours to get to certain OHV areas in their unit, making enforcement in those areas difficult. Existing fines were insufficient to deter illegal or unsafe OHV use. An additional challenge is installing and maintaining signs. For example, field unit officials said that signs (e.g., indicating if a road is open or closed) are often shot at, pulled out, or driven over, and signs must frequently be replaced.

In 2009, the GAO recommended the BLM improve their strategic planning and take other actions to help provide quality OHV opportunities while protecting federal lands and resources.

Unauthorized OHV use has been a documented problem for some time on BLM land in the Mojave Desert. Goodlett and Goodlett (1991) reported on OHV use on BLM land in the Fremont Valley and Rand Mountains. For example, 21 signed, closed routes were raked. When rechecked 34 days later, 206 new OHV tracks were found.

In 2014, a BLM ranger from the California Desert District reported about 30,000 off-road vehicles descended on the Mojave Desert in California over Thanksgiving weekend, and many of those off-road vehicles ended up in places they should not have gone. These locations included the Cleghorn Lakes Wilderness Area, Poste Homestead site, other wilderness areas, and Desert Wildlife Management Areas (Clark 2014) (or TCAs, which BLM is managing for the Mojave desert tortoise according to its land management plan).

Given the findings and recommendations in the 2009 GAO report and the Clark (2014) report, it does not appear that BLM has implemented measures to effectively manage its OHV recreation program in the Mojave Desert. Until BLM is able to demonstrate effective management, given the long-lasting and widespread adverse effects from OHV recreation use, we do not support the establishment of additional OHV recreation areas in the Mojave Desert near habitats important to the continued survival and recovery of the tortoise.

### **Status of the Mojave Desert Tortoise**

The Council has serious concerns about direct, indirect, and cumulative sources of human mortality for the Mojave desert tortoise given the status and trend of the species rangewide, within each of the five recovery units, within the TCAs that comprise each recovery unit, and within/near areas identified by the USFWS as linkage areas or corridors between critical habitat units. The Sandy Valley OHV area is located in a key linkage area identified by the USFWS, and is located in tortoise habitat.

Densities of Adult Mojave Desert Tortoises: A few years after listing the Mojave desert tortoise under the Federal Endangered Species Act (FESA), the USFWS published a Recovery Plan for the Mojave desert tortoise (USFWS 1994a). It contained a detailed population viability analysis. In this analysis, the minimum viable density of a Mojave desert tortoise population is 10 adult tortoises per mile<sup>2</sup> (3.9 adult tortoises per km<sup>2</sup>). This assumed a male-female ratio of 1:1 (USFWS 1994a, page C25) and certain areas of habitat with most of these areas geographically linked by adjacent borders or corridors of suitable tortoise habitat. Populations of Mojave desert tortoises with densities below this amount are in danger of extinction (USFWS 1994a, page 32). The Revised Recovery Plan (USFWS 2011) designated five recovery units for the Mojave desert tortoise that are intended to conserve genetic, behavioral, and morphological diversity necessary for the recovery of the entire listed species (Allison and McLuckie 2018).

Rangewide, densities of adult Mojave desert tortoises declined more than 32% between 2004 and 2014 (Table 1) (USFWS 2015). At the recovery unit level, between 2004 and 2014, densities of adult desert tortoise declined, on average, in every recovery unit except the Northeastern Mojave (Table 1). Adult densities in the Northeastern Mojave Recovery Unit increased 3.1% per year (SE = 4.3%), while the other four recovery units declined at different annual rates: Colorado Desert (4.5%, SE = 2.8%), Upper Virgin River (3.2%, SE = 2.0%), Eastern Mojave (11.2%, SE = 5.0%), and Western Mojave (7.1%, SE = 3.3%) (Allison and McLuckie 2018).

Table 1. Summary of 10-year trend data for 5 Recovery Units and 17 CHU/TCAs for Agassiz's desert tortoise, *Gopherus agassizii*. The table includes the area of each Recovery Unit and CHU/TCA, percent of total habitat for each Recovery Unit and CHU/TCA, density (number of breeding adults/km<sup>2</sup> and standard errors = SE), and the percent change in population density between 2004-2014. Populations below the viable level of 3.9 breeding individuals/km<sup>2</sup> (10 breeding individuals per mi<sup>2</sup>) (assumes a 1:1 sex ratio) and showing a decline from 2004 to 2014 are in red (USFWS 2015).

Recovery Unit	Surveyed	% of total	2014	% 10-year change
Designated Critical Habitat	area	habitat area in	density/km <sup>2</sup>	(2004–2014)
Unit/Tortoise Conservation	$(km^2)$	Recovery Unit	(SE)	
Area		& CHU/TCA		
Western Mojave, CA	6,294	24.51	2.8 (1.0)	-50.7 decline
Fremont-Kramer	2,347	9.14	2.6 (1.0)	-50.6 decline
Ord-Rodman	852	3.32	3.6 (1.4)	-56.5 decline
Superior-Cronese	3,094	12.05	2.4 (0.9)	-61.5 decline
Colorado Desert, CA	11,663	45.42	4.0 (1.4)	-36.25 decline
Chocolate Mtn AGR, CA	713	2.78	7.2 (2.8)	-29.77 decline
Chuckwalla, CA	2,818	10.97	3.3 (1.3)	-37.43 decline
Chemehuevi, CA	3,763	14.65	2.8 (1.1)	-64.70 decline
Fenner, CA	1,782	6.94	4.8 (1.9)	-52.86 decline
Joshua Tree, CA	1,152	4.49	3.7 (1.5)	+178.62 increase
Pinto Mtn, CA	508	1.98	2.4 (1.0)	-60.30 decline
Piute Valley, NV	927	3.61	5.3 (2.1)	+162.36 increase
Northeastern Mojave	4,160	16.2	4.5 (1.9)	+325.62 increase
Beaver Dam Slope, NV, UT,	750	2.92	6.2 (2.4)	+370.33 increase
AZ				
Coyote Spring, NV	960	3.74	4.0 (1.6)	+ 265.06 increase
Gold Butte, NV & AZ	1,607	6.26	2.7 (1.0)	+ 384.37 increase
Mormon Mesa, NV	844	3.29	6.4 (2.5)	+ 217.80 increase
Eastern Mojave, NV & CA	3,446	13.42	<b>1.9</b> (0.7)	-67.26 decline
El Dorado Valley, NV	999	3.89	1.5 (0.6)	-61.14 decline
Ivanpah, CA	2,447	9.53	2.3 (0.9)	-56.05 decline
Upper Virgin River	115	0.45	15.3 (6.0)	-26.57 decline
Red Cliffs Desert	115	0.45	15.3 (6.0)	-26.57 decline
Total amount of land	25,678	100.00		-32.18 decline

<u>Density Juvenile Mojave Desert Tortoises</u>: Survey results indicate that the proportion of juvenile desert tortoises has been decreasing in all five recovery units since 2007 (Allison and McLuckie 2018). The probability of encountering a juvenile tortoise was consistently lowest in the Western Mojave Recovery Unit. Allison and McLuckie (2018) provided reasons for the decline in juvenile desert tortoises in all recovery units. These included decreased food availability for adult female tortoises resulting in reduced clutch size, decreased food availability resulting in increased mortality of juvenile tortoises, prey switching by coyotes from mammals to tortoises, and increased abundance of common ravens that typically prey on smaller desert tortoises.

Declining adult densities through 2014 have left the Western Mojave adult numbers at 49% (a 51% decline) and in the Eastern Mojave at 33% (a 67% decline) of their 2004 levels (Allison and McLuckie 2018, USFWS 2015). Such steep declines in the density of adults are only sustainable if there were suitably large improvements in reproduction and juvenile growth and survival. However, the proportion of juveniles has not increased anywhere in the range of the Mojave desert tortoise since 2007, and in the Western and Eastern Mojave recovery units the proportion of juveniles in 2014 declined to 91% (a 9% decline) and 77% (a 23% decline) of their representation in 2004, respectively (Allison and McLuckie 2018).

Abundance of Mojave Desert Tortoises: Allison and McLuckie (2018) noted that because the area available to tortoises (i.e., tortoise habitat and linkage areas between habitats) is decreasing, trends in tortoise density no longer capture the magnitude of decreases in abundance. Hence, they reported on the change in abundance or numbers of the Mojave desert tortoises in each recovery unit (Table 2). They noted that these estimates in abundance are likely higher than actual numbers of tortoises and the changes in abundance (i.e., decrease in numbers) are likely lower than actual numbers because of their habitat calculation method. They used area estimates that removed only impervious surfaces created by development as cities in the desert expanded. They did not consider degradation and loss of habitat from other sources, such as the recent expansion of military operations (753.4 km<sup>2</sup> so far on Fort Irwin and the Marine Corps Air Ground Combat Center, both in the Western Mojave Recovery Unit), intense or large scale fires (e.g., 576.2 km<sup>2</sup> of critical habitat that burned in 2005), development of utility-scale solar facilities (so far 194 km<sup>2</sup> have been permitted) (USFWS 2016), or other sources of degradation or loss of habitat (e.g., recreation, mining, grazing, infrastructure, etc.). Thus, the declines in abundance of Mojave desert tortoise are likely greater than those reported in Table 2.

Table 2. Estimated change in abundance of adult Mojave desert tortoises in each recovery unit	t
between 2004 and 2014 (Allison and McLuckie 2018). Decreases in abundance are in red.	

Recovery Unit	Modeled Habitat (km <sup>2</sup> )	2004 Abundance	2014 Abundance	Change in Abundance	Percent Change in Abundance
Western Mojave	23,139	131,540	64,871	-66,668	-51%
Colorado Desert	18,024	103,675	66,097	-37,578	-36%
Northeastern Mojave	10,664	12,610	46,701	34,091	270%
Eastern Mojave	16,061	75,342	24,664	-50,679	-67%
Upper Virgin River	613	13,226	10,010	-3,216	-24%
Total	68,501	336,393	212,343	-124,050	-37%

<u>Habitat Availability</u>: Data on population density or abundance does not indicate population viability. The area of protected habitat or reserves for the subject species is a crucial part of the viability analysis along with data on density, abundance, and other population parameters. In the Desert Tortoise (Mojave Population) Recovery Plan (USFWS 1994a), the analysis of population viability included population density and size of reserves (i.e., areas managed for the desert tortoise) and population numbers (abundance) and size of reserves. The USFWS' Recovery Plan reported that as population densities for the Mojave desert tortoise decline, reserve sizes must increase, and as population numbers (abundance) for the Mojave desert tortoise decline, reserve sizes must increase (USFWS 1994a). In 1994, reserve design (USFWS 1994a) and designation of critical habitat (USFWS 1994a) were based on the population viability analysis from numbers (abundance) and the population viability analysis form numbers (abundance) and the population viability analysis form numbers (abundance) and the population viability analysis form numbers (abundance) for the Mojave desert tortoise decline, reserve sizes must increase (USFWS 1994a). In 1994, reserve design (USFWS 1994a) and designation of critical habitat (USFWS 1994b) were based on the population viability analysis from numbers (abundance) and densities of populations of the Mojave desert tortoise in the early 1990s. Inherent in this analysis is that the lands be managed with reserve level protection (USFWS 1994a, page 36) or ecosystem protection as described in section 2(b) of the FESA, and that sources of mortality be reduced so recruitment exceeds mortality (that is, lambda > 1)(USFWS 1994a, page C46).

Habitat loss would also disrupt the prevailing population structure of this widely distributed species with geographically limited dispersal (isolation by distance; Murphy et al. 2007; Hagerty and Tracy 2010). Allison and McLuckie (2018) anticipate an additional impact of this habitat loss/degradation is decreasing resilience of local tortoise populations by reducing demographic connections to neighboring populations (Fahrig 2007). Military and commercial operations and infrastructure projects that reduce tortoise habitat in the desert are anticipated to continue (Allison and McLuckie 2018) as are other sources of habitat loss/degradation.

Allison and McLuckie (2018) reported that the life history of the Mojave desert tortoise puts it at greater risk from even slightly elevated adult mortality (Congdon et al. 1993; Doak et al. 1994), and recovery from population declines will require more than enhancing adult survivorship (Spencer et al. 2017). The negative population trends in most of the TCAs for the Mojave desert tortoise indicate that this species is on the path to extinction under current conditions (Allison and McLuckie 2018). They state that their results are a call to action to remove ongoing threats to tortoises from TCAs, and possibly to contemplate the role of human activities outside TCAs and their adverse effects on tortoise populations inside them.

Densities, numbers, and habitat for the Mojave desert tortoise declined between 2004 and 2014. As reported in the population viability analysis, to improve the status of the Mojave desert tortoise, reserves (area of protected habitat) must be established and managed. When densities of tortoises decline, the area of protected habitat must increase. When the abundance of tortoises declines, the area of protected habitat must increase. We note that the Desert Tortoise (Mojave Population) Recovery Plan was released in 1994 and its report on population viability and reserve design was reiterated in the 2011 Revised Recovery Plan as needing to be updated with current population data (USFWS 2011, p. 83). With lower population densities and abundance, a revised population viability analysis would show the need for greater areas of habitat to be protected for the Mojave desert tortoise. In addition, we note that none of the recovery actions that are fundamental tenets of conservation biology has been implemented throughout most or all of the range of the Mojave desert tortoise.

<u>Definition of an Endangered Species</u>: Agassiz's desert tortoise is now on the list of the world's most endangered tortoises and freshwater turtles. It is in the top 50 species. The International Union for Conservation of Nature's (IUCN) Species Survival Commission, Tortoise and Freshwater Turtle Specialist Group, now considers Agassiz's desert tortoise to be Critically Endangered (Turtle Conservation Coalition 2018).

The IUCN places a taxon in the Critically Endangered category when the best available evidence indicates that it meets one or more of the criteria for Critically Endangered. These criteria are: 1) population decline - a substantial (>80 percent) reduction in population size in the last 10 years; 2) geographic decline - a substantial reduction in extent of occurrence, area of occupancy, area/extent, or quality of habitat, and severe fragmentation of occurrences; 3) small population size with continued declines; 4) very small population size; and 5) analysis showing the probability of extinction in the wild is at least 50 percent within 10 years or three generations.

In the FESA, Congress defined an "endangered species" as "any species which is in danger of extinction throughout all or a significant portion of its range..." Given the information above under the "Status of the Mojave Desert Tortoise" and the definition of an endangered species, the Council believes the status of the Mojave desert tortoise is that of an endangered species. This biological status should be considered along with the direct, indirect, and cumulative impacts of OHV recreation areas (see below) to the survival and recovery of the tortoise and its habitat.

In summary, given the status of the Mojave desert tortoise; the direct, indirect, and cumulative adverse effects of roads and vehicles on the tortoise and its habitat and other species and their habitats; the history of OHV recreation management on BLM lands in the Mojave Desert; and the commitment by Clark County in the MSHCP for the tortoise and other Covered Species, we believe adoption of this resolution would contradict Clark County's commitment of carrying out the goals of the MSHCP. We request that the resolution not be adopted.

If the Board is committed to supporting OHV recreation, we recommend the Board adopt a resolution to support well-planned, sited, managed, funded, mitigated, and monitored OHV recreation on BLM land. This would include:

(1) complying fully with federal laws, regulations, executive orders, and policies, including those mentioned in this letter;

(2) conducting additional scientific studies of the adverse effects of OHV use on biotic and abiotic components of the environment, especially over the long term, given the time it takes for environmental components such as soils and vegetation to recover from degradation/loss;

(3) developing planning strategies for OHV management and location of OHV recreation using the data from these scientific studies and other available data to balance OHV-user needs with the needs of other land users and the legal/regulatory mandates to protect land health;

(4) adequately funding, implementing, and monitoring management strategies based on scientific studies and planning strategies. For example, implementation of effective site restoration and habitat connectivity (examples of types of management strategies) are crucial to minimize fragmentation. Implementation of habitat quality, habitat connectivity, and minimization of mortality are crucial to tortoise survival and recovery; and

(5) implementing changes in management strategies when monitoring or other data indicate protection of land health is not occurring.

We appreciate this opportunity to provide input and trust that our comments will further protect tortoises, and assist the Board and agencies of Clark County in accomplishing their goals for the Mojave desert tortoise and its habitat as committed to in the MSHCP. Herein, we ask that the Desert Tortoise Council be identified as an Affected Interest for this and all other Clark County projects/actions that may affect the Mojave desert tortoise outside of those covered by the MSHCP. Please communicate with us using the contact information listed above.

Regards,

(00 12RA

Edward L. LaRue, Jr., M.S. Chair, Ecosystems Advisory Committee

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