

## APPENDIX A NATIONAL AMBIENT AIR QUALITY STANDARDS

Pollutant	Primary Standards		Secondary Standards	
	Level	Averaging Time	Level	Averaging Time
Carbon Monoxide	9 ppm (10 µg/m <sup>3</sup> )	8-hour <sup>(1)</sup>	None	
	35 ppm (40 µg/m <sup>3</sup> )	1-hour <sup>(1)</sup>		
Lead	1.5 µg/m <sup>3</sup>	Quarterly Average	Same as Primary	
Nitrogen Dioxide	0.053 ppm (100 µg/m <sup>3</sup> )	Annual (Arithmetic Mean)	Same as Primary	
Particulate Matter (PM <sub>10</sub> )	150 µg/m <sup>3</sup>	24-hour <sup>(2)</sup>	Same as Primary	
Particulate Matter (PM <sub>2.5</sub> )	15.0 µg/m <sup>3</sup>	Annual <sup>(3)</sup> (Arithmetic Mean)	Same as Primary	
	35 µg/m <sup>3</sup>	24-hour <sup>(4)</sup>	Same as Primary	
Ozone	0.075 ppm (2008 std)	8-hour <sup>(5)</sup>	Same as Primary	
	0.08 ppm (1997 std)	8-hour <sup>(6)</sup>	Same as Primary	
	0.12 ppm	1-hour <sup>(7)</sup> (Applies only in limited areas)	Same as Primary	
Sulfur Dioxide	0.03 ppm	Annual (Arithmetic Mean)	0.5 ppm (1300 µg/m <sup>3</sup> )	3-hour <sup>(1)</sup>
	0.14 ppm	24-hour <sup>(1)</sup>		

<sup>(1)</sup> Not to be exceeded more than once per year.

<sup>(2)</sup> Not to be exceeded more than once per year on average over 3 years.

<sup>(3)</sup> To attain this standard, the 3-year average of the weighted annual mean PM<sub>2.5</sub> concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m<sup>3</sup>.

<sup>(4)</sup> To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m<sup>3</sup> (effective December 17, 2006).

<sup>(5)</sup> To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm. (effective May 27, 2008)

<sup>(6)</sup> (a) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.08 ppm.

(b) The 1997 standard—and the implementation rules for that standard—will remain in place for implementation purposes as EPA undertakes rulemaking to address the transition from the 1997 ozone standard to the 2008 ozone standard.

<sup>(7)</sup> (a) The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is ≤ 1.

(b) As of June 15, 2005 EPA revoked the [1-hour ozone standard](#) in all areas except the 8-hour ozone nonattainment [Early Action Compact \(EAC\) Areas](#).

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## APPENDIX B NOXIOUS WEEDS

TABLE 1. LIST OF NEVADA'S NOXIOUS WEEDS

Scientific Name	Common Name
<b>Category A Weeds</b>	
<i>Peganum harmala</i>	African rue
<i>Rorippa austriaca</i>	Austrian fieldcress
<i>Sphaerophysa salsula / Swainsona salsula</i>	Austrian peaweed
<i>Hyoscyamus niger</i>	Black henbane
<i>Alhagi camelorum</i>	Camelthorn
<i>Crupina vulgaris</i>	Common crupina
<i>Linaria dalmatica</i>	Dalmation toadflax
<i>Isatis tinctoria</i>	Dyer's woad
<i>Myriophyllum spicatum</i>	Eurasian water-milfoil
<i>Arundo donax</i>	Giant Reed
<i>Salvinia molesta</i>	Giant salvinia
<i>Galega officinalis</i>	Goats rue
<i>Pennisetum setaceum</i>	Green fountain grass
<i>Cynoglossum officinale</i>	Houndstongue
<i>Hydrilla verticillata</i>	Hydrilla
<i>Centaurea iberica</i>	Iberian starthistle
<i>Hypericum perforatum</i>	Klamath weed
<i>Centaurea melitensis</i>	Malta star thistle
<i>Anthemis cotula</i>	Mayweed chamomile
<i>Salvia aethiopis</i>	Mediterranean sage
<i>Lythrum salicaria, L.virgatum and their cultivars</i>	Purple loosestrife
<i>Centaurea calcitrapa</i>	Purple starthistle
<i>Chondrilla juncea</i>	Rush skeletonweed
<i>Sonchus arvensis</i>	Sow thistle
<i>Centaurea masculosa</i>	Spotted knapweed
<i>Centaurea virgata</i>	Squarrose knapweed
<i>Potentilla recta</i>	Sulfur cinquefoil
<i>Zygophyllum fabago</i>	Syrian bean caper
<i>Centaurea solstitialis</i>	Yellow starthistle
<i>Linaria vulgaris</i>	Yellow toadflax
<b>Category B Weeds</b>	
<i>Solanum carolinense</i>	Carolina horse-nettle
<i>Centaurea diffusa</i>	Diffuse knapweed
<i>Euphorbia esula</i>	Leafy spurge

Scientific Name	Common Name
<i>Taeniatherum caput-medusae</i>	Medusahead
<i>Carduus nutans</i>	Musk thistle
<i>Acroptilon repens</i>	Russian knapweed
<i>Brassica tournefortii</i>	Sahara mustard
<i>Onopordum acanthium</i>	Scotch thistle
<i>Solanum elaeagnifolium</i>	White horse-nettle
<b>Category C Weeds</b>	
<i>Cirsium arvense</i>	Canada thistle
<i>Cardaria draba</i>	Hoary cress
<i>Sorghum halepense</i>	Johnson grass
<i>Lepidium latifolium</i>	Perennial pepperweed
<i>Conium maculatum</i>	Poison hemlock
<i>Tribulus terrestris</i>	Puncture vine
<i>Tamarix spp</i>	Salt cedar (tamarisk)
<i>Cicuta maculata</i>	Water hemlock

Source: Nevada Department of Agriculture (NDA 2005).

**CATEGORY "A":** Weeds not found or limited in distribution throughout the state; actively excluded from the state and actively eradicated wherever found; actively eradicated from nursery stock dealer premises; control required by the state in all infestations.

**CATEGORY "B":** Weeds established in scattered populations in some counties of the state; actively excluded where possible, actively eradicated from nursery stock dealer premises; control required by the state in areas where populations are not well established or previously unknown to occur.

**CATEGORY "C":** Weeds currently established and generally widespread in many counties of the state; actively eradicated from nursery stock dealer premises; abatement at the discretion of the state quarantine officer.

## APPENDIX C OBSERVED PLANT SPECIES

FAMILY	SCIENTIFIC NAME	COMMON NAME
Asteraceae	<i>Adenophyllum cooperi</i>	Cooper's dogweed
Asteraceae	<i>Ambrosia dumosa</i>	burrobush
Asteraceae	<i>Ambrosia eriocentra</i>	woolly bur-sage
Asteraceae	<i>Bebbia juncea</i> var. <i>aspera</i>	sweetbush
Asteraceae	<i>Brickellia arguta</i>	pungent brickellbush
Asteraceae	<i>Encelia frutescens</i>	California encelia
Asteraceae	<i>Ericameria pinifolia</i>	pinebush
Asteraceae	<i>Filgao californica</i>	California cottonrose
Asteraceae	<i>Gutierrezia microcephala</i>	matchweed
Asteraceae	<i>Hymenoclea salsola</i>	burrobrush
Asteraceae	<i>Malacothrix californica</i>	desert dandelion
Asteraceae	<i>Porophyllum gracile</i>	odora
Asteraceae	<i>Stephanomeria pauciflora</i>	small wire lettuce
Asteraceae	<i>Viguiera parishii</i>	Parish's goldeneye
Asteraceae	<i>Xylorhiza tortifolia</i> var. <i>tortifolia</i>	Mojave woody aster
Bignoniaceae	<i>Chilopsis linearis</i>	desert willow
Boraginaceae	<i>Amsinckia tessellata</i> var. <i>tessellata</i>	bristly fiddleneck
Boraginaceae	<i>Cryptantha circumcissa</i>	cushion cryptantha
Boraginaceae	<i>Cryptantha micrantha</i>	redroot cryptantha
Boraginaceae	<i>Cryptantha nevadensis</i>	Nevada cryptantha
Boraginaceae	<i>Cryptantha utahense</i>	scented cryptantha
Brassicaceae	<i>Guillenia lasiophylla</i>	California mustard
Brassicaceae	<i>Lepidium flavum</i>	yellow pepperweed
Brassicaceae	<i>Lepidium fremontii</i>	Desert pepperweed
Brassicaceae	<i>Lepidium nitidum</i> var. <i>howellii</i>	shining pepperweed
Cactaceae	<i>Echinocactus polycephalus</i>	many-headed barrel cactus
Cactaceae	<i>Echinocereus fasciculatus</i>	robust hedgehog cactus
Cactaceae	<i>Ferocactus cylindraceus</i>	California barrel cactus
Cactaceae	<i>Mammillaria tetrancistra</i>	many-spined fishhook cactus
Cactaceae	<i>Opuntia acanthocarpa</i> ssp. <i>Coloradensis</i>	buckhorn cholla
Cactaceae	<i>Opuntia basilaris</i>	beavertail cholla
Cactaceae	<i>Opuntia echinocarpa</i> ssp. <i>echinocarpa</i>	silver cholla
Cactaceae	<i>Opuntia ramosissima</i>	diamond cholla
Cactaceae	<i>Sclerocactus johnsonii</i>	Johnson's devil claw
Chenopodiaceae	<i>Atriplex canescens</i>	fourwing saltbrush
Chenopodiaceae	<i>Grayia spinosa</i>	hosage

FAMILY	SCIENTIFIC NAME	COMMON NAME
Chenopodiaceae	<i>Krasheninnikovia lanata</i>	winter fat
Cucurbitaceae	<i>Cucurbita palmata</i>	coyote melon
Ephedraceae	<i>Ephedra</i> cf. <i>nevadensis</i>	Nevada jointfir
Ephedraceae	<i>Ephedra viridis</i>	mormon tea
Euphorbiaceae	<i>Chamaesyce albomarginata</i>	rattlesnake weed
Fabaceae	<i>Dalea mollisma</i>	silk dalea
Fabaceae	<i>Psorothamnus arborescens</i> var. <i>minutifolius</i>	Johnson's indigo bush
Fabaceae	<i>Senna armata</i>	spiny senna
Geraniaceae	<i>Erodium cicutarium</i>	redstem stork's bill
Hydrophyllaceae	<i>Phacelia</i> sp.	likely <i>crenulata</i> (notchleaved phacelia)
Hydrophyllaceae	<i>Phacelia distans</i>	distant phacelia
Krameriaceae	<i>Krameria erecta</i>	Pima rhatany
Lamiaceae	<i>Salazaria mexicana</i>	bladder sage
Lamiaceae	<i>Salvia columbariae</i>	chia
Lamiaceae	<i>Salvia mojavensis</i>	Mojave sage
Liliaceae	<i>Yucca brevifolia</i>	Joshua tree
Liliaceae	<i>Yucca schidigera</i>	Mojave yucca
Loasaceae	<i>Mentzelia albicaulis</i>	whitestem blazingstar
Loasaceae	<i>Mentzelia involucrata</i>	whitebract blazingstar
Loasaceae	<i>Petalonyx nitidus</i>	shiny-leaf sandpaper plant
Malvaceae	<i>Sphaeralcea ambigua</i>	desert apricot mallow
Nyctaginaceae	<i>Allionia incarnata</i>	trailing four o'clock
Nyctaginaceae	<i>Mirabilis bigelovii</i>	wishbone bush
Onagraceae	<i>Oenothera deltoides</i>	basket evening primrose
Papaveraceae	<i>Eschscholzia munitiflora</i> ssp. <i>minutiflora</i>	pygmy poppy
Plantaginaceae	<i>Plantago ovata</i>	desert plantain
Poaceae	<i>Acnatherum hymenoides</i>	indian ricegrass
Poaceae	<i>Acnatherum speciosum</i>	desert needlegrass
Poaceae	<i>Aristida purpurea</i>	three-awn
Poaceae	<i>Bromus madritensis</i> ssp. <i>rubens</i>	red brome
Poaceae	<i>Bromus tectorum</i>	cheat grass
Poaceae	<i>Erioneuron pulchellum</i>	fluff grass
Poaceae	<i>Melica</i> sp.	likely <i>frutescens</i>
Poaceae	<i>Pleuraphis rigida</i>	big galleta
Poaceae	<i>Schismus arabicus</i>	split grass
Poaceae	<i>Vulpia myuros</i>	foxtail fescue
Polemoniaceae	<i>Gilia brecciarum</i>	Nevada gilia
Polemoniaceae	<i>Langloisia setosissima</i> ssp. <i>setosissima</i>	bristly langloisia
Polemoniaceae	<i>Linanthus dichotomus</i>	evening snow
Polygonaceae	<i>Chorizanthe brevicornu</i>	brittle spineflower

FAMILY	SCIENTIFIC NAME	COMMON NAME
Polygonaceae	<i>Chorizanthe rigida</i>	rigid spiny herb
Polygonaceae	<i>Eriogonum angulosum</i>	anglestem buckwheat
Polygonaceae	<i>Eriogonum brachypodium</i>	skeleton weed
Polygonaceae	<i>Eriogonum fasciculatum</i>	eastern Mojave buckwheat
Polygonaceae	<i>Eriogonum inflatum</i>	desert trumpet
Polygonaceae	<i>Eriogonum mohavense</i>	western Mojave buckwheat
Polygonaceae	<i>Eriogonum palmerianum</i>	Palmer's buckwheat
Polygonaceae	<i>Eriogonum pusillum</i>	puny buckwheat
Polygonaceae	<i>Oxytheca perfoliata</i>	round-leaved spineflower
Polygonaceae	<i>Salsola tragus</i>	Russian thistle
Pteridaceae	<i>Cheilanthes parryi</i>	cloak fern
Rosaceae	<i>Prunus fasciculata</i>	desert almond
Rutaceae	<i>Thamnosia montana</i>	turpentine-broom
Scrophulariaceae	<i>Penstemon bicolor</i> spp. <i>roseus</i>	rosy twin-toned beardtongue
Scrophulariaceae	<i>Penstemon</i> sp.	likely <i>floridus</i> (Panamint beardtongue)
Solanaceae	<i>Lycium andersonii</i>	water jacket
Solanaceae	<i>Lycium cooperi</i>	peach thorn
Solanaceae	<i>Physalis crassifolia</i>	ground-cherry
Solanaceae	<i>Nicotiana obtusifolia</i>	desert tobacco
Viscaceae	<i>Phoradendron californicum</i>	desert mistletoe
Zygophyllaceae	<i>Larrea tridentata</i>	creosote bush

**APPENDIX D  
U.S. FISH AND WILDLIFE SERVICE RECOMMENDATIONS,  
REASONABLE AND PRUDENT MEASURES TO MINIMIZE THE  
TAKING OF DESERT TORTOISE**

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## **REASONABLE AND PRUDENT MEASURES WITH TERMS AND CONDITIONS**

The Service believes that the following Reasonable and Prudent Measures (RPMs) are necessary and appropriate to minimize take of desert tortoise.

**RPM 1:** *The BLM, or other jurisdictional Federal agency, shall ensure that agency personnel, or project proponent and their contractors implement the following measures to minimize injury or mortality of desert tortoises due to project activities.*

### Terms and Conditions:

- 1.a. *Speed limit:* Within Clark County, the speed limit is 25 miles-per-hour on unposted county roads; this speed shall be established for all activities at all times unless otherwise designated.
- 1.b. *Vehicles:* All project/event-related individuals shall check underneath stationary vehicles before moving them.
- 1.c. *Education Program:* A BLM or Service-approved biologist (as defined below) shall facilitate a tortoise education program to all supervisors, workers, permittees and other employees or participants involved in projects covered under the Sloan Canyon NCA RMP. The program will consist of either a presentation or fact sheet as determined by project-level consultation between BLM and the Service, and will include information on the life history of the desert tortoise, legal protection for desert tortoises, penalties for violations of Federal and State laws, general tortoise activity patterns, reporting requirements, measures to protect tortoises, terms and conditions of the biological opinion, and personal measures employees can take to promote the conservation of desert tortoises. "Take," which is defined to include any harm or harassment to desert tortoise, including significant habitat modification, will also be explained. Workers and project associates will be encouraged to carpool to and from the project sites. Specific and detailed instructions will be provided on the proper techniques for capturing and moving tortoises which appear onsite if appropriate. These instructions will be in accordance with Service-approved protocol. Currently, the Service-approved protocol is Desert Tortoise Council 1994, revised 1999.
- 1.d. *Biologist approval:* BLM and Service wildlife staff shall approve the biologists who will be assigned to implement the terms and conditions of the biological opinion, or permit issued by BLM. Any biologist not previously approved must submit a statement of qualifications in the Service-developed format and be approved by the wildlife staff, before authorized to represent BLM in meeting compliance with the terms and conditions of the biological opinion. Other personnel may assist with implementing conservation measures, but must be under direct field supervision by the authorized biologist.

- 1.e. *Biologist qualifications:* In accordance with *Procedures for Endangered Species Act Compliance for the Mojave Desert Tortoise* (Service 1992), an authorized desert tortoise biologist should possess a bachelor's degree in biology, ecology, wildlife biology, herpetology, or closely related fields as determined by BLM and the Service. The biologist must have demonstrated prior field experience using accepted resource agency techniques to survey for desert tortoises and tortoise sign, which should include a minimum of 60 days field experience. All tortoise biologists shall comply with the Service-approved handling protocol (Desert Tortoise Council 1994, revised 1999). In addition, the biologist shall have the ability to recognize and accurately record survey results and must be familiar with the terms and conditions of the biological opinion that resulted from project-level consultation between BLM and the Service.
- 1.f. *Tortoises in harm's way:* If a tortoise is found within the project/activity site in harm's way, all potentially harmful activity shall cease until the tortoise moves or is moved out of harm's way by an authorized biologist. If a desert tortoise is in *imminent danger*, the tortoise shall be moved out of harm's way and on to adjacent BLM land, using techniques described in the tortoise education program.
- 1.g. *Moving tortoises:* Tortoises that are moved offsite and released into undisturbed habitat on public land, shall be placed in the shade of a shrub, in a natural unoccupied burrow similar to the hibernaculum in which it was found, or in an artificially constructed burrow in accordance with the tortoise handling protocol. Tortoises encountered shall be treated in a manner consistent with the appropriate measures in this biological opinion.
- 1.h. *Permits:* All appropriate State and Federal permits, including Nevada Department of Wildlife permits for handling desert tortoises or their parts, shall be acquired by the tortoise biologists or other personnel before project initiation and prior to handling any desert tortoise or their parts, or conducting any activity requiring a permit.
- 1.i. *Project oversight:* One or more BLM representatives shall be designated who will be responsible for overseeing compliance with the reasonable and prudent measures, terms and conditions, reporting requirements, and reinitiation requirements identified in this biological opinion. The designated representatives shall provide coordination among the permittee, project proponent, BLM, and the Service.
- 1.j. *Desert tortoise burrows:* Shall be avoided whenever possible; if not, the burrow will be cleared in accordance with the measures set forth in this biological opinion.

- 1.k. *Heat stress:* Desert tortoises encountered experiencing heat stress shall be placed in a tub, by an authorized tortoise biologist, with one inch of 76-90°F (24-32°C) water for at least 20 minutes or until heat stress symptoms are no longer evident.
- 1.l. *Temperature restrictions:* Desert tortoises shall be treated in a manner to ensure that they do not overheat, exhibit signs of overheating (*e.g.*, gaping, foaming at the mouth, etc.), or are placed in a situation where they cannot maintain surface and core temperatures necessary to their well-being. Desert tortoises shall be kept shaded at all times until it is safe to release them. No desert tortoise shall be captured, moved, transported, released, or purposefully caused to leave its burrow for whatever reason when the ambient air temperature is above 95°F (35°C). Ambient air temperature shall be measured in the shade, protected from wind, at a height of 2 inches (5 centimeters) above the ground surface. No desert tortoise shall be captured if the ambient air temperature is anticipated to exceed 95°F before handling and relocation can be completed. If the ambient air temperature exceeds 95°F during handling or processing, desert tortoises shall be kept shaded in an environment that does not exceed 95°F, and the animals shall not be released until ambient air temperature declines to below 95°F.
- 1.m. *Clearance:* All project areas, fence lines, staging areas, etc. shall be cleared of tortoises by an authorized biologist immediately before the start of ground disturbance using 100-percent coverage survey techniques. During the tortoise active season, an authorized tortoise biologist will be onsite during fence construction to ensure that no tortoises are harmed. Burrows found outside the area to be disturbed, will be flagged and avoided. Clearance will involve excavating nests; relocating eggs; flagging avoidable burrows; collapsing unavoidable, unoccupied burrows; and relocating tortoises in accordance with the Service-approved protocol for handling desert tortoises (Desert Tortoise Council 1994, revised 1999). If disturbance is planned to occur during a period when tortoise are not anticipated to be active, surveys may be conducted earlier as determined during project-specific consultation.
- 1.n. *On-site biologist:* Unless the area has been fenced and cleared, or the Service and BLM have determined an onsite biologist is not necessary through project-level consultation, the project shall require at least one authorized biologist onsite for project construction during the period of greatest tortoise activity (*e.g.*, March 1 through October 31). The biologist shall be on-call at other times.

**RPM 2:** *The BLM, or other jurisdictional Federal agency, shall ensure that agency personnel, or project proponent and their contractors implement the following measures to minimize predation on desert tortoises by predators drawn to the project area.*

Term and Condition:

2. *Litter-control:* Shall be implemented and enforced by the project proponent or BLM. Trash containers shall remain covered, must be raven-proof, and emptied frequently enough to prevent overflow of materials. Trash, litter, project debris, etc. shall be transferred to a designated solid waste disposal facility. Vehicles hauling trash must be secured to prevent litter from blowing out along the road.

**RPM 3:** *The BLM, or other jurisdictional Federal agency, shall ensure that agency personnel, or project proponent and their contractors implement the following measures to minimize loss and long-term degradation and fragmentation of desert tortoise habitat, such as soil compaction, erosion, crushed vegetation, and introduction of weeds or contaminants:*

Terms and Conditions:

- 3.a. *Vehicle traffic:* Shall be restricted to designated roads, except for emergency and administrative-related traffic.
- 3.b. *Previous disturbance:* Overnight parking and storage of equipment and materials, including stockpiling, shall be within previously-disturbed areas or within areas cleared by a tortoise biologist to minimize habitat destruction.
- 3.c. *Project boundaries:* Project activity areas shall be clearly marked or flagged at the outer boundaries before the onset of construction. All activities shall be confined to designated areas. When new access routes have been identified for development, the tortoise biologist will flag routes before surface disturbance.
- 3.d. *Blading of vegetation:* Shall occur only to the extent necessary and shall be limited to areas designated for that purpose by BLM or a tortoise biologist.
- 3.e. *Fees:* Prior to issuance of authorization, and prior to any surface-disturbing activity associated with the proposed project, BLM shall pay a remuneration fee of \$754 for each acre of surface disturbance, if paid prior to March 1, 2010. This rate will be indexed annually for inflation based on the Bureau of Labor Statistics Consumer Price index for All Urban Consumers (CPI-U). Information on the CPI-U can be found on the internet at <http://stats.bls.gov/news.release/cpi.nws.htm>. The payments shall be accompanied by the enclosed Section 7 Fee Payment Form (Appendix A), and

completed by the payee. Payment shall be by certified check or money order payable to Clark County and delivered to:

Clark County Desert Conservation Program  
c/o Dept. of Air Quality and Environmental Management  
Clark County Government Center  
500 S. Grand Central Parkway, first floor (front counter)  
Las Vegas, Nevada 89106  
(702) 455-5821

- 3.f. *Restoration:* Temporary disturbance areas shall be restored in accordance with the restoration protocols for the project.
- 3.g. *Leaks/spills:* All vehicles shall be inspected prior to moving into the project area to ensure proper fluid containment. Any vehicles leaking fluid (oil, transmission fluid, etc.) will not be allowed in the project area. Any fuel or hazardous waste leaks/spills shall be contained immediately and cleaned up at the time of occurrence. Contaminated soil will be removed and disposed of at an appropriate facility.

**RPM 4.** *The BLM, or other jurisdictional Federal agency, shall ensure their agency personnel, or project proponent and their contractors implement the following measure to comply with the reasonable and prudent measures, terms and conditions, reporting requirements, and reinitiation requirements contained in this biological opinion.*

Terms and Conditions:

- 4.a. *Tortoise mortality/injury:* BLM wildlife staff (702/515-5000) and the Service (702/515-5230) must be notified of any desert tortoise death or injury in the NCA by close of business on the following work day. In addition, the Service's Division of Law Enforcement shall be notified in accordance with the reporting requirements of this biological opinion.
- 4.b. *Reporting:* Within 30 days of completion of a project, the project proponent, permittee, or BLM shall submit a document to a BLM wildlife biologist showing the number of acres disturbed, remuneration fees paid, and number of tortoises observed or taken, which includes capture and displacement, killed, injured, or harassed by other means, during implementation of programmatic actions.
- 4.c. *Notification:* The project applicant/BLM lead shall notify BLM wildlife staff representative responsible for NEPA review of the project, at least 10 days before initiation of the project (702 515-5000).

## **APPENDIX E RESPONSE TO PUBLIC COMMENTS RECEIVED ON THE DRAFT EA**

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**Table 1. Public Draft EA Comments and Responses.**

Commenter	Comm. #	Original Comment	Bureau of Land Management Response
The Wilderness Society	1	We encourage BLM to dedicate the resources necessary to implement the trails plan through maps, signage, and monitoring and enforcement. A 2009 GAO report found that the most effective ORV enforcement action is routinely monitoring areas where violations are known and/or likely to take place. The report recommended BLM develop user-friendly signs and maps to improve visitor experiences and help curb unauthorized use.	The BLM proposes to use various signage and wayfinding markers to improve visitor experiences and deter unauthorized uses. The proposed signage and wayfinding techniques are described on page 2-23 of the Public Draft EA. In non-wilderness areas, BLM intends to install directional signage and markers to assist with wayfinding and visitor safety. Temporary and permanent exhibits, highlighting interpretive themes or providing information on points of interest, would also be used to convey information to visitors. In wilderness areas, trail junctions and trail beds (where necessary) would be marked with low-profile native materials. No directional signs would be provided in the wilderness outside of the Petroglyph Management Area.
Southern Nevada Regional Trails Partnership	1	Hopefully, in the future, equestrian and bicycle camping will be added to this NCA without another long, drawn-out process.	Equestrian and bicycle camping may be considered in a separate planning process.
State of Nevada Department of Cultural Affairs	1	On page 3-28 of the document a statement is made that consultation with our office occurred for eight resources identified on Table 3-7 in the area of potential effect for the subject undertaking (26Ck8636, 26Ck8637, 26Ck8638, 26Ck8639, 26Ck8640, 26Ck8642, 26Ck8641, 26Ck8643). The SHPO cannot find any record of the consultation mentioned in the document. If our records are in error, please provide this office with the documentation cited in the Environmental Assessment.	The cultural resources section has been revised to reflect the BLM-State Protocol Agreement. Pursuant to the BLM-State Protocol Agreement, the BLM determines that the undertaking would have “no effect” to historic properties, including the Sloan Canyon Petroglyph Site.
Friends of Nevada Wilderness	1	The analysis in Chapter 4 really never addresses how these trails would conserve, enhance and protect the cultural, archaeological, natural, wilderness, scientific, geological, historical, biological, wildlife, educational and scenic resources of the NCA. There is discussion of how building the trails would impact rare plants, spread invasive plants, impact soil and wildlife, etc. This seems especially true of the network of trails proposed in the northern part of the NCA. How do these conserve, enhance and protect the values for which the NCA was created?	Beneficial effects of the proposed trails project are noted, by resource, in Chapter 4. Although construction of the trail network would result in short-term adverse effects as well as some long-term adverse effects, the project would conserve, enhance, and protect the values for which the NCA was created. For example, the Proposed Action (Alternative D) would have no effect on, thereby conserving, the outstanding opportunities for solitude or a primitive and unconfined type of recreation. Scenic resources would be conserved or enhanced by providing a designated, low-impact trail system that, in the long-term, should reduce visual impacts associated with social trail proliferation. As noted in the vegetation section, although some long-term adverse effects are anticipated, “the new trail construction and improved user experience will likely bring more visitors to the Sloan Canyon NCA. The increased number of visitors would likely create greater interest in desert ecology and a greater awareness and appreciation for the native plants and vegetation communities, which would be a beneficial effect since it could help promote more stewardship and conservation interest.”

Commenter	Comm. #	Original Comment	Bureau of Land Management Response
Friends of Nevada Wilderness	2	Recognizing that the BLM may have already made commitments for the trail work perhaps there is little opportunity for reassessing the scope of this project but I hope that before the final decision is signed, the BLM will consider both the scope of the trails and the need to include extensive restoration.	<p>In Section 1.5.5, the BLM acknowledges that resource damage as a result of unauthorized uses is extensive and is perpetuating a number of resource issues. Extensive restoration in the Sloan Canyon NCA would require a dedicated and focused planning process to identify and prioritize areas for restoration and to develop appropriate restoration strategies. An extensive restoration program is beyond the scope of this Trails Master Plan; however, the BLM does recognize that some immediate restoration must occur in conjunction with the trails effort to deter further proliferation of unauthorized routes <i>from</i> the designated trail system.</p> <p>As part of this Trails Master Plan project, some restoration of user-created (unauthorized) routes is proposed. Page 2-24 of the Public Draft EA states, "the BLM intends to close OHV or other user created routes that intersect proposed trails to facilitate appropriate use of the designated trail system. Specific techniques for route closure and restoration would vary by site. Restoration would include the use of a variety of techniques, including breaking up compacted surfaces, recontouring to the natural grade, seeding or planting of vegetation from local genetic sources, rock placement to mimic the form and texture of the surrounding landscape, or scattering vegetative debris to disguise the old route. Ultimately, the restored portion of the social routes would appear as natural.</p>
Friends of Nevada Wilderness	3	It seems that with all the money the BLM has to rebuild new trails there might be a higher priority placed on being good stewards of the NCA and restoring the damaged and degraded habitat mentioned above. It seems that restoration would truly be conserving, protecting and enhancing the values of the NCA.	See response to Friend of Nevada Wilderness, #2. Additionally, the BLM has determined that in order to prevent further unauthorized uses and the proliferation of unauthorized routes, the NCA must provide designated trail facilities for acceptable uses. BLM intends to implement a more extensive restoration effort in the future, which may be compromised if unauthorized uses continue in response to a lack of appropriate, designated trails.
Friends of Nevada Wilderness	4	Maybe there is a way to incorporate a much more robust restoration component of this project in order to provide mitigation for the impacts associated with all the trail building.	The majority of identified impacts of trail construction in the NCA are short-term in nature, and related primarily to construction period disturbances (e.g., noise, presence of humans, etc.). See also Section 2.2.6, <i>Project Design Features</i> , which indicate several methods for using excess trail construction materials for on-site restoration (specifically, Vegetation #1, #2, #8, #10-#15 and Cultural #1, #2, and #4).
Thomas L. Butler	1	[Comments are general in nature and are supportive of the project.]	Comment noted.
State of Nevada Department of Wildlife	1	Generally, the Department remains concerned about increased recreational use of the Petroglyph Canyon area indicated in all alternatives analyzed. A number of studies (see enclosed Suggested References) have described negative impacts to desert bighorn sheep by recreational activities.	Once appropriate infrastructure is in place (e.g, designated trails, trailheads, etc.) visitor access to the Petroglyph Management Area, including the Petroglyph Canyon, will be regulated through a permit system and a requirement to visit the area with a BLM guide/docent. The BLM will be able to monitor and adjust permits, tour numbers, and/or group sizes as necessary to limit or reduce negative impacts to desert bighorn sheep as a result of recreational activities in this area.



Commenter	Comm. #	Original Comment	Bureau of Land Management Response
State of Nevada Department of Wildlife	2	<p>A related observation is that the NCA’s RMP refers to and agrees to manage bighorn sheep habitat in accordance with the BLM’s <i>Rangewide Plan for Managing Habitat of Desert Bighorn Sheep on Public Lands</i> (1986). Pages 18 and 19 of the <i>Rangewide Plan</i> contain the 15 management practices and standards. However, two of these practices and standards could stand enhanced consideration in the Trails Plan.</p> <p>The first standard establishes that, “<i>Crucial areas, such as lambing grounds, migration routes, mineral licks, and areas within 1 mile of permanent water sources, will receive maximum habitat protection.</i>” Should trail use in the area negatively impact wildlife in the Poppy area, we anticipate that if effectively implemented, the BLM’s monitoring will be adequate to demonstrate a need for corrective action such as realignment of the trail.</p>	<p>Alternative D (Proposed Action) trails have been developed consistent with the RMP guidance to avoid new trail construction within 0.25 miles of wildlife water guzzlers. The only routes in the vicinity of the Poppy Guzzler are those that were previously agreed to by NDOW during the development of the RMP.</p> <p>The following statement has been added to Section 2.4.2, Future Effectiveness Monitoring, per NDOW’s suggestion:</p> <p>“Crucial wildlife areas, such as bighorn sheep lambing grounds, migration routes, mineral licks, and areas near permanent water sources, will receive maximum habitat protection. Excessive use by recreationists will be regulated on major desert bighorn use areas. The BLM will monitor trail use near the Poppy Guzzler to for effects on wildlife; should trail use near the guzzler be determined to have negative impacts on wildlife in the area, the BLM will pursue corrective actions such as realignment of the trail or seasonal closures.”</p>
State of Nevada Department of Wildlife	3	<p>A related observation is that the NCA’s RMP refers to and agrees to manage bighorn sheep habitat in accordance with the BLM’s <i>Rangewide Plan for Managing Habitat of Desert Bighorn Sheep on Public Lands</i> (1986). Pages 18 and 19 of the <i>Rangewide Plan</i> contain the 15 management practices and standards. However, two of these practices and standards could stand enhanced consideration in the Trails Plan.</p> <p>The ninth standard states, “<i>Excessive use by recreationists will be regulated on major desert bighorn use areas.</i>” Should trail use in the area negatively impact wildlife in the Poppy area, we anticipate that if effectively implemented, the BLM’s monitoring will be adequate to demonstrate a need for corrective action such as realignment of the trail.</p>	<p>See response to previous comment (NDOW Comment #2).</p>
State of Nevada Department of Wildlife	4	<p>The Trails Plan does not disclose the RMP requirement that all dogs are to be on a leash in the NCA and that dogs are prohibited from Petroglyph Canyon. This needs to be corrected.</p>	<p>A statement will be added to the Final EA to clarify the RMP requirement that all dogs must be on a leash in designated areas and that dogs are not permitted in the Petroglyph Management Area.</p>
State of Nevada Department of Wildlife	5	<p>The Department insists that the Trails Plan include a monitoring program inclusive of addressing the NCA dog regulations and which provides a mechanism for proactive measurement of non-compliance upon which responsive management actions are based.</p>	<p>The following statement has been added to Section 2.4.2, Future Effectiveness Monitoring, per NDOW’s suggestion:</p> <p>“The BLM will monitor and enforce NCA dog regulations on designated trails and cross-country hiking areas in the NCA.”</p>

Commenter	Comm. #	Original Comment	Bureau of Land Management Response
State of Nevada Department of Wildlife	6	The Department is generally supportive of Alternative D, but contingent on a strongly recommended modification. In Alternative D, the Dutchman Pass area appears to have become sacrificial to accommodate heightened recreation opportunities. In view of the clear mandate for the NCA and the stated intent by Senators Reid and Ensign, the trails system in the Dutchman Pass area should more resemble that described in Alternative B.	The goal of the additional Alternative D trails in the Dutchman Pass area is to incorporate routes that have been traditionally used and are in areas that are currently impacted. Several Dutchman Pass area trail connections shown in the Public Draft EA have been determined to be unnecessary and will be removed from the final plan.
State of Nevada Department of Wildlife	7	Regardless of the alternative selected, the Department recommends a phased approach to trails development, particularly in the Dutchman Pass area.	The BLM's original intent was to phase construction of the trail system. However, with the reduction in proposed trails under Alternative D due to resource concerns and the fact that outside funding has been secured to construct the entire system, it is the BLM's plan to build the system in one phase.
Rodney Ward	1	The Alternative D, 2 miles of hike and Equestrian only trail should be changed to Hiking only or include Mountain Biking. There is no reason not to allow Mountain Bikes.	The 2.0 miles of hiking and equestrian only trails shown in Table 2-3 (page 2-4) are located in the Hidden Valley area, outside of the Petroglyph Management Area and areas intended for hiking only. Mountain biking is not allowed in this portion of the NCA per the 2006 RMP. See also Map 3 (page 1-10) which indicates where mountain biking is allowed per the 2006 RMP.
Rodney Ward	2	Table 2-2 Trail Widths: Need clarification of width of trails for by trail.	A description of trail tread, surface, and conditions is provided on pages 2-16 and 2-17.
Rodney Ward	3	Going forward on the trail building and design, I suggest hiring or consulting with the International Mountain Bike Association to create a sustainable, multiuse trail system.	Comment noted. A representative of IMBA has been on the project mailing list since the beginning of the project and has been included in project notifications and solicitations for comments and stakeholder involvement throughout this process.
Rodney Ward	4	Include all user groups to ensure a sustainable, multiuse trail system. As it appears today, the plan appears to be built specifically for 1 main user group. This should NOT be the case.	The 2006 RMP identifies three primary trail user types: equestrian, mountain bike, and hiking. The 2006 RMP established zones for where each of these uses is and is not allowed, as well as cross-country travel restrictions for each use type. The BLM has developed trail network alternatives consistent with the acceptable uses and zones identified in the 2006 RMP. Proposed trails in the Dutchman Pass area are intended for each of the three user types; trails in the Black Mountain area are intended for hiking only, consistent with RMP requirements; and trails in the Hidden Valley area (with the exception of the Petroglyph Management Area) have been developed for hiking and equestrian uses. Sections 1.5.1 and 1.5.2 and Map 3 provide a summary description of RMP-defined Management Emphasis Areas, designated use areas, and prohibited use areas.