

Appendix Q

Q.0 Northern and Eastern Mojave Plan Route Designation Process and Methodology

The Northern and Eastern Mojave Desert (NEMO) Coordinated Management Plan was initiated to address declines in the population of desert tortoises (*Gopherus agassizii*), listed as a threatened species in 1990 pursuant to the Endangered Species Act of 1973, as amended, and other species listed as Threatened or Endangered in the planning area (See Chapter 1, Section 1.3, Purpose and Need and Scope). In 1994, the U.S. Fish and Wildlife Service designated desert tortoise critical habitat and completed a recovery plan, which contains recommendations for protective action. This listing and the need to provide for recovery affects several local, State, and Federal agencies, each with differing mandates for conservation and protection of the tortoise.

Certain decisions at the land-use plan level will constitute amendments to the California Desert Conservation Area (CDCA) Plan (1980), as amended. Other decisions relate to activity-plan level actions of which the designation of routes of travel as “open,” “limited,” or “closed” is a part. Designations within the NEMO planning area will be based, in part, on known or predicted occurrence of special status animals and plants, and an inventory of existing routes of travel. [Note: Throughout the NEMO planning area, numerous washes constituting existing routes of travel in accordance with the CDCA Plan are not individually delineated on route maps given their extensive nature. The current NEMO route inventory depicts 100% of other existing routes within the planning area (to the degree that such an inventory is possible), including primary and major secondary wash routes.]

The CDCA Plan prescribed that motorized vehicles in Multiple-Use Class (MUC) L (Limited) areas be directed to approved routes, that is, routes that have been designated “open” or “limited.” It is proposed as the preferred action of the NEMO Plan that motorized-vehicle access throughout the planning area be addressed in a manner consistent with MUC L areas. In designating routes of travel accordingly, the criteria expressed in Executive Order 11644 (February 9, 1972), thereafter transformed into regulations at 43 CFR 8342.1, must be applied. The regulations require that all designations of areas and trails be based on the protection of the resources of the public lands, the promotion of the safety of all the users of the public lands, and the minimization of conflicts among various uses of the public lands. Of particular relevance to the NEMO Plan are the criteria expressed at 43 CFR 8342.1(a) and (b). The first requires that areas and trails be located to minimize damage to soil, watershed, vegetation, air, or other resources of the public lands. The second requires that areas and trails be located to minimize harassment of wildlife or significant disruption of wildlife habitats, and that special attention be given to protect endangered or threatened species and their habitats.

Q.1 Routes Of Travel: Process

The products of the Northern and Eastern Mojave (NEMO) Plan for the Routes of Travel process would be twofold:

1. To establish the process to be used to designate all routes of travel, inclusive of washes for the NEMO planning area, which would accomplish the objectives established in the California Desert Conservation Area (CDCA) Plan (1980) as amended
2. To designate routes within desert tortoise critical and Category I habitat within the planning area. The scope of inventory and specific route designation is limited to the first two route sub-regions—those routes located within and adjacent to desert tortoise critical habitat and Category I habitat (Piute-Fenner Subregion and Shadow-Ivanpah Subregion). All public lands are currently MUC “L” or “M” in these subregions. Under the Proposed Plan, lands within proposed DWMA would be modified to MUC “L”.

The existing routes in other sub-regions are not included in this inventory or route designation effort. Routes in the remaining sub-regions are generally considered open as existing routes according to the CDCA Plan, pending designations, unless otherwise previously designated (CDCA activity plans, previous route designations by Federal Register) or signed as closed¹, until subsequent route designation in those sub-regions are completed. Route designation for all sub-regions is scheduled for completion no later than June 2004.

Consistent with 43 CFR 8342.1 and CDCA Plan guidance, BLM would approve routes, (including wash routes) to be designated in MUC Limited “L” and Moderate “M” lands. Approved “existing” routes would be designated “open”, “closed” or “limited”. Routes not approved would be closed without further designation effort.

Routes located on private lands or portions thereof are considered outside the scope of BLM approval and route designation efforts. Where the holdings (e.g., rights or interests) of non-BLM parties may be affected adversely by BLM approval and/or route designation determinations, BLM would address the circumstances on a case-by-case basis.

¹ Routes may be closed under provisions of 43 CFR 8341.2, Special Rules, for various purposes and timeframes. This would not interfere with the subsequent route designation for the affected routes.

Q.2 Route Inventory: Method

Q.2.1 Task 1: Identify “Existing” Route Network

The first task was to identify the “existing” route network within Category I habitat. To be “existing”, a route is to have been established before approval of the CDCA Plan (1980), have a width of 2 feet (minimum), and show significant surface evidence of prior use by vehicles, or, for washes, have a history of prior use.

A blue-line vehicle route inventory set of maps for the CDCA was produced in 1980, based on aerial photos taken in the 1977-1979 timeframe, with considerable ground truthing in some areas. The Northern and Eastern Mojave Desert generally was an area that had less ground truthing due to lower use levels and relatively low conflicts in most of the area. Lacking a completely ground-truthed inventory of 1980 routes, the Northern and Eastern Mojave Plan the BLM adopted a “baseline” inventory generated from field verification of routes gathered from multiple sources. Those sources including Interim Critical Management Program (ICMP) maps from 1974², the 1977-1979 CDCA Plan maps that were generated based on the aerial photos for the 1980 CDCA Plan, subsequently updated BLM “Desert Access Guide” maps, 7.5-minute USGS topographical maps, information from BLM field rangers, and almost ten years of route inventory data.

In 1993, with the goal of driving all routes in the planning area and recording their locations, BLM’s Needles Office began its inventory effort by supplementing office staff with a full-time volunteer and using field visits to collect route location data. Initially, the data were transferred to MOSS, an early version of a Geographic Information System Database. However, subsequent conversion to the current GIS Database version, ARC/INFO, resulted in some loss of MOSS data (e.g., route identification numbers). During 1995, BLM phased MOSS out, and data were transferred directly into ARC/INFO.

In 1998, BLM began collection of field-verified data from many of the routes in the largest of the Category I habitat areas (Piute-Fenner). In the three smaller Category I habitat areas (Shadow Valley, North Ivanpah, and Ivanpah), BLM based its information on earlier inventories and office staff knowledge from previous field work. BLM also offered private landowners and organized groups the opportunity to review and comment on early inventories and make recommendations, and, in 1998 and 1999, collected route data from those needing access to continue operating their facilities.

Q.2.2 Task 2: Identify “Existing” Wash Routes

BLM defines a desert “wash” as a watercourse (whether dry, or with running or standing water) having physical characteristics (e.g., width, soil, slope, topography, vegetative cover) that permit the passage of motorized vehicles. BLM recognizes that, within periods of time that can vary substantially, evidence of use in washes (vehicle tracks, as well as more tangible residuals) is erased or relocated by the action of wind and water, particularly in sandy washes. This complicates field surveys intended to determine whether or not motor vehicle use of any given wash is a matter of fact. As a result, some genuine routes in washes go unrecognized during inventory efforts.

² The ICMP maps and designations were invalidated with the adoption of the CDCA Plan and its designations, but were a useful tool for development of the route inventory, as ICMP routes served to confirm routes occurring on CDCA maps. Also, some routes appeared on the ICMP maps, did not appear on the CDCA Plan maps, then appeared again on USGS or DAG maps, indicating potential mapping errors in need of field verification.

Early in this process, BLM found it unrealistic to field verify wash routes in Category I desert tortoise habitat because of their large numbers. As a result, BLM field verified those washes conventionally used as routes of travel on a regular basis. That is, in Category I desert tortoise habitat washes were eliminated from consideration if they could not reasonably meet the biological criteria for washes, i.e., that they were navigable and part of the primary transportation network (See Section Q.2.3, Item A. for wash criteria). If they are in the inventory of existing routes or other evidence was found that they are part of the primary transportation network they were approved for designation. The mileage of Category I wash routes that could potentially meet the biological criteria, based on existing inventories and route maps, as well as evaluating the overall network, was identified. The mileage of Category I wash routes and approach to designation of washes is the same for all alternatives, based on the biological criteria in the desert tortoise sub-regions.

Q.2.3 ROUTE DESIGNATION: Definitions/Criteria

In the NEMO planning area, with the following regulatory (43 CFR 8342.1) criteria, BLM is to designate areas and trails by locating them to minimize:

- Damage to resources of the public lands (e.g., soil, watershed, vegetation, air) and prevent impairment of wilderness suitability
- Harassment of wildlife or significant disruption of their habitats, giving special attention to protecting endangered or threatened species and their habitats
- Conflicts between off-road vehicle use and other existing or proposed recreation uses of the same or neighboring public lands, and ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors.

BLM also is to locate no areas or trails in officially designated wilderness areas or primitive areas. BLM is to locate areas and trails in natural areas only if the authorized officer determines that off-road vehicle use will not adversely affect the values for which those areas were established (e.g., natural, esthetic, or scenic).

Additional biological parameters to minimize harassment of wildlife and significant disruption of wildlife habitats were considered throughout the designation. They include:

- Washes will be closed unless they provide the major through access in an area and no reasonable alternative exists, or they provide access to a major recreational site and do not result in substantive degradation of habitat
- The route designation process shall consider fragment size
- Closure of routes within ¼ mile of any significant bat roost shall be strongly considered
- Closure of routes within ¼ mile of known prairie falcon or golden eagle eyries (cliff nests) shall be strongly considered
- Closure of routes within ¼ mile of natural or artificial water sources (e.g. springs, seeps, streams, guzzlers) shall be strongly considered
- Closure of “redundant” routes shall be strongly considered

BLM proposes to designate these routes of travel based on the application of the 43 CFR 8342.1 regulations and additional biological criteria for biological and natural resources developed pursuant to these regulations and the Desert Tortoise Recovery Plan, as well as existing CDCA Plan guidance (e.g., limitations on Ivanpah Dry Lake Bed). Throughout the route designation process, BLM recognized specific access requirements granted through formal authorization processes (e.g., rights-of-way) and the value of a motorized recreation-touring network. BLM also recognized that the requirements of both generally are reflected in the existence of current roads, whether paved and/or maintained dirt. As a result, if a designation of “open” is not consistent with regulatory criteria (as set forth above), BLM would designate such roads/routes as “limited” or “closed”, as necessary to protect sensitive values (e.g., biological or cultural resources).

The NEMO planning area includes part of a loosely defined larger network of roads and routes, including those in washes, traditionally used for motorized recreation.

- A. Within the desert tortoise sub-regions, designation criteria generally would result in wash closure. BLM would designate specific washes as “open” or “limited” for motor vehicle use if (1) BLM identifies them as part of the primary recreational touring network, and (2) they generally exhibited significant evidence of motorized vehicle use at the time of the field inventory phase and meet the CDCA Plan’s general definition of navigability, and (3) if motor vehicle use would not complicate BLM land management circumstances unreasonably (e.g., complex situations involving large numbers of distinct and affected parties, such as the “checkerboard” pattern of public and private land ownership). For the Proposed Plan, BLM considered the importance of those washes as desert tortoise habitat and whether or not they were primary recreation access links. For example, a portion of one of the washes that was included in the route inventory was closed—the Southern portion of Bull Run Wash—because it provides one of the few corridors under I-15 for desert tortoise passage and also runs adjacent to Turquoise Mountain Road which offers an alternative to motor-vehicles. The wash is an open route north of Turquoise Mountain Road.
- B. BLM would designate some routes as “limited”, wherein use would be subject to limits on the number and/or type of vehicle used, the time or season of use (e.g., opening day for hunting season in washes in proposed conservation areas), permitting or licensing requirements, and/or speed limits. Also, for wildlife management purposes (e.g., guzzler maintenance), BLM’s designation of a route as “limited” would allow access for authorized users only. Since Ivanpah Dry Lake is a closed area, all routes which lead to, cross, or connect in some way to the area were designated as “limited” and require a permit to use.
- C. In the remainder of the planning area, BLM would designate specific washes as “open” or “limited” for motor vehicle use (1) according to criteria established during the route designation process, consistent with the sensitivity and MUC of the area, and (2) they generally exhibited significant evidence of motorized vehicle use at the time of the field inventory phase and meet the CDCA Plan’s general definition of navigability, and (3) if motor vehicle use would not complicate BLM land management circumstances unreasonably (e.g., complex situations involving large numbers of distinct and affected parties, such as the “checkerboard” pattern of public and private land ownership). BLM would designate some routes as “limited”, wherein use would be subject to limits on the number and/or type of vehicle used, the time or season of use (e.g., opening day for hunting season in washes in proposed conservation areas), permitting or licensing requirements, and/or speed limits. Also, for wildlife or other resource management purposes (e.g., guzzler maintenance), BLM’s designation of a route as “limited” would allow access for authorized users only.

For the purposes of route designation, a “wash” is defined as a watercourse, either dry or with running or standing water, which by its physical nature—width, soil, slope, topography, vegetative cover, etc.—permits the passage of motorized vehicles, thereby establishing its “navigability” (CDCA Plan, App. VI). The implication of this definition is that washes may be considered as routes of travel only if wash banks are not compromised (primarily as a function of width), soil stability is not adversely affected, and vegetation is not destroyed consequent to the passage of vehicles (regional standards may provide some thresholds to evaluate this on a landscape level). If access to a wash by motorized vehicles results in vegetative destruction, disturbance to the integrity of wash banks or an unacceptable degree of soil erosion—the destruction of natural features—the wash is not considered to be a route of travel.

A route designated “closed” by the BLM would occur for a variety of reasons.

- Some routes are in excess, spur, or fragment of what is needed (“redundant”) because its purpose seems the same as an alternative route, and/or it offers the same or very similar recreation opportunities or experiences, and if, upon closure, use of such a route would be displaced to another route(s) satisfying 43 CFR 8342.1 criteria.
- Any route that provides access to a point now within a wilderness area, and now provides access to the boundary of that area, or any route that has become a management issue because motor vehicles continue to use it into or through wilderness and no purpose would be served by establishing a trailhead at the wilderness boundary.
- Any route BLM finds to be non-existent or intermittently visible, i.e., those where vehicle use would require the crushing of substantial vegetation, or those no longer used and substantially reclaimed by natural forces, even if such routes are shown on authoritative maps (e.g., the most recent USGS 7.5-minute quadrangle maps).

Q.3 Sign Strategy for Routes

Wayside exhibits or kiosks would be strategically placed throughout the NEMO planning area. The specific objectives of these exhibits are to:

- Provide an updated map showing the network of open, closed, and limited routes, in public areas that receive moderate to high use

Specific to the Desert Tortoise sub-regions, the following additional objectives would apply:

- Increase public awareness of the need to protect desert tortoises and their habitat on California's public lands
- Educate the public regarding their role in protecting tortoises and tortoise habitat
- Modify social behavior in a manner that benefits desert tortoise populations and their habitat
- Increase public knowledge of and support for agency actions to benefit desert tortoises and their habitat.

Q.4 Monitoring Program Development

Executive Order 11644 requires that the effects of OHV activities be monitored on public lands, and on the basis of the information gathered, the appropriate agency shall from time to time amend or rescind designations of areas or other actions taken pursuant to the order. The regulations at 43 CFR 8342.3 in codifying Executive Order 11644 also require such monitoring and subsequent amendment, revision, revocation, or other action as necessary pursuant to the regulations. The CDCA Plan, as amended, states the following:

A major component of the vehicle-access element is the monitoring of impacts resulting from vehicle use. The analysis of impacts and reassessment of management decisions is an integral part of the Bureau's response to the legislative mandate.

The primary objectives of the motorized-vehicle access monitoring program are to:

- Identify and document when unacceptable levels and kinds of impacts occur on natural, cultural, and historic values.
- Identify when impacts will preclude corrective or rehabilitative actions.
- Identify the type of vehicle equipment and/or related use, which is causing, or likely to cause, impacts.
- Provide the information necessary to make immediate and long-range decisions on the use or prohibition of vehicles on designated or existing access routes.

Recommendations of monitoring efforts must be specific to each individual area, taking into consideration such issues as access needs, use levels, user conflicts, and impacts on resources. Monitoring efforts may vary. Monitoring techniques include field observations, remote sensing, ground photographs, and environmental study plots.

Options to limit, designate or close specific travel routes or areas will be available to the manager. These options will be invoked when monitoring reveals that Plan objectives are not being met because of identified adverse effects resulting from vehicle travel.

Q.4.1 Program Development

An implementation element of the NEMO Plan, inclusive of monitoring, has not yet been fully described, nor have associated costs been determined. A monitoring program for the planning area relative to OHV activities and their impacts would likely be integrated with an overall monitoring program pertaining to changes in biological conditions. In turn, the comprehensive NEMO monitoring plan would be developed in conjunction with an effort by the Desert Managers Group to establish a desert-wide monitoring program. As an overall objective, the monitoring program would provide additional baseline data and resource condition assessments (monitoring of certain resources has been ongoing for many years) for improving ecological conditions consistent with BLM policy relative to Rangeland Standards and Guidelines. With this policy initiated in 1993, all uses of public lands are addressed that affect ecological components which include watersheds, ecological processes, wildlife habitats, soils, and air and water quality.

Specific to the component of the monitoring program addressing OHV activities and their impacts, and related desert tortoise use patterns, identified personnel would be required for implementation. A State Off-Highway Vehicle Grant would be directed for such purposes subsequent to establishing the parameters of the monitoring program by various cooperating agencies and interest groups. Specific monitoring program elements would be developed by BLM and other agency staff. The monitoring program would necessarily be dynamic in response to data gathered and conclusions formulated.

Q.4.2 Monitoring Program Benefits

To date, information pertaining to use levels, user conflicts, and impacts on resources within the CDCA, and in particular in the NEMO planning area, is lacking in specificity to a large degree. The benefits of a targeted monitoring program are several:

- Facilitates Bureau compliance with the Executive Order, regulations, and CDCA Plan requirements pertaining to monitoring and adaptive management, including restoration where appropriate
- Substantiates management decisions which permit the continued use of OHVs where impacts are not significant as well as those which direct use away from areas where the converse is demonstrated
- May provide new data for modification of route and resource management strategies and route designation decisions, particularly in sensitive and higher use areas
- Identifies trends in vehicular use and resource conditions subsequent to which monitoring efforts can be more effectively directed.

Table Q.1 – Routes of Travel Designations

Route #	USGS Topographical Map	Tenure	Desert Tortoise Area	Map #	Proposed Plan Designations
699001	Goffs, Bannock, Homer		PIUTE-FENNER	1, 2, 23	openp
699002	Homer	map error	PIUTE-FENNER	1	closedt
699003	Homer	PVT—map error	PIUTE-FENNER	1	Unclassified
699004	Homer, Bannock	water source sg guzzler	PIUTE-FENNER	1, 2	openr/w
699005	Homer		PIUTE-FENNER	1	openr
699006	Homer, Bannock		PIUTE-FENNER	1, 2	openr
699007	Bannock		PIUTE-FENNER	2	openp
699008	Bannock		PIUTE-FENNER	2	openr
699009	Bannock	BLM/PVT	PIUTE-FENNER	2	opena
699010	Bannock		PIUTE-FENNER	2	openr
699011	Bannock		PIUTE-FENNER	2	openr
699012	Bannock		PIUTE-FENNER	2	openr
699013	Bannock		PIUTE-FENNER	2	openr
699014	Bannock		PIUTE-FENNER	2	openr
699015	Bannock	BLM/PVT	PIUTE-FENNER	2	closeda
699016	Bannock, Homer		PIUTE-FENNER	1, 2	openr/sp
699017	Bannock	wilderness	PIUTE-FENNER	2	openr/partiala
699018	Fenner		PIUTE-FENNER	20	openp
699019	Bannock		PIUTE-FENNER	2	closedg
699020	Bannock	BLM/PVT	PIUTE-FENNER	2	opena
699021	Bannock	BLM/PVT	PIUTE-FENNER	2	closedg
699023	Homer	BLM/PVT	PIUTE-FENNER	1	opena
699024	Homer	BLM/PVT	PIUTE-FENNER	1	opena
699025	Homer	BLM/NPS	PIUTE-FENNER	1	opena
699026	Homer	water source range improv	PIUTE-FENNER	1	openw
699028	Homer, Homer Mountain	water source sg guzzler	PIUTE-FENNER	1, 3	openw/partialg
699029	Homer, Homer Mountain, E Homer Mountain		PIUTE-FENNER	1, 3	openp
699030	E Homer Mountain		PIUTE-FENNER	3	openp
699031	E Homer Mountain, Juniper Mine		PIUTE-FENNER	4, 6	openp
699032	E Homer Mountain	BLM/PVT	PIUTE-FENNER	4	closeda

Route #	USGS Topographical Map	Tenure	Desert Tortoise Area	Map #	Proposed Plan Designations
699033	E Homer Mountain		PIUTE-FENNER	4	closeda
699034	E Homer Mountain	BLM/PVT	PIUTE-FENNER	4	openr/partialg
699035	E Homer Mountain, Homer Mountain		PIUTE-FENNER	3, 4	openr
699036	E Homer Mountain		PIUTE-FENNER	4	openr
699037	E Homer Mountain, Juniper Mine		PIUTE-FENNER	4, 6	openr
699038	E Homer Mountain, Homer	BLM/PVT	PIUTE-FENNER	3, 4	limiteda
699039	E Homer Mountain, Homer Mountain	BLM/PVT	PIUTE-FENNER	3, 4	limiteda
699040	E Homer Mountain, Homer Mountain		PIUTE-FENNER	3, 4	openr
699041	E Homer Mountain		PIUTE-FENNER		closedn
699042	E Homer Mountain, Homer Mountain		PIUTE-FENNER	3, 4	openr
699043	Homer Mountain		PIUTE-FENNER	3	openr
699044	Homer Mountain		PIUTE-FENNER	3	openr
699045	Homer Mountain		PIUTE-FENNER	3	openr
699046	Homer Mountain		PIUTE-FENNER	3	limiteda
699047	Homer Mountain		PIUTE-FENNER	3	openr
699048	Homer Mountain	water source sg guzzler	PIUTE-FENNER	3	openr/w
699049	Homer Mountain, Homer, W Juniper Mine		PIUTE-FENNER	1, 3, 5	openp
699050	E Homer Mountain		PIUTE-FENNER	4	openr
699051	E Homer Mountain	BLM/NV	PIUTE-FENNER	4	closedn/partiala
699052	Juniper Mine	tortoise	PIUTE-FENNER	6	closedt/a
699053	W Juniper Mine, Juniper Mine		PIUTE-FENNER	5, 6	openr/closedn
699054	W Juniper Mine	BLM/NPS	PIUTE-FENNER	5	openr
699055	W Juniper Mine	BLM/PVT	PIUTE-FENNER	5	closedg
699056	W Juniper Mine		PIUTE-FENNER	5	openr
699057	W Juniper Mine		PIUTE-FENNER	5	openr
699058	W Juniper Mine	water source range improv	PIUTE-FENNER	5	closedw
699059	W Juniper Mine	water source range improv	PIUTE-FENNER	5	closedw
699060	W Juniper Mine		PIUTE-FENNER	5	openr
699061	W Juniper Mine		PIUTE-FENNER	5	openr

Route #	USGS Topographical Map	Tenure	Desert Tortoise Area	Map #	Proposed Plan Designations
699062	W Juniper Mine	water source range improv	PIUTE-FENNER	5	openr/w
699063	W Juniper Mine		PIUTE-FENNER	5	closedg/t
699064	W Juniper Mine, Juniper Mine	BLM/NV	PIUTE-FENNER	5, 6	closedn/partiala
699065	Bannock		PIUTE-FENNER	2	openr
699066	Bannock	PVT-map error	PIUTE-FENNER	2	Unclassified
699068	Bannock	BLM/PVT	PIUTE-FENNER	2	opena
699069	Bannock		PIUTE-FENNER	2	closedf
699071	Juniper Mine		PIUTE-FENNER	6	openr
699072	W Juniper Mine		PIUTE-FENNER	5	openr
699073	E Homer Mountain		PIUTE-FENNER	4	openr
699074	E Homer Mountain, Homer Mountain		PIUTE-FENNER	3, 4	openr
699075	E Homer Mountain, Homer Mountain		PIUTE-FENNER	3, 4	openr
699076	E Homer Mountain, Homer Mountain		PIUTE-FENNER	3, 4	openr
699077	Bannock, Homer		PIUTE-FENNER	1, 2	openr
699077	Homer	map error	PIUTE-FENNER	1	closedt/f
699078	Homer		PIUTE-FENNER	1	openr
699079	E Homer Mountain		PIUTE-FENNER	3	openr
699081	E Homer Mountain, Homer Mountain		PIUTE-FENNER	3, 4	openr
699082	E Homer Mountain, Bannock		PIUTE-FENNER	2, 4	openr
699083	Bannock		PIUTE-FENNER	2	openr
699084	Bannock		PIUTE-FENNER	2	openr
699085	Bannock		PIUTE-FENNER	2	openr
699086	Homer, Bannock		PIUTE-FENNER	1, 2	openr
699087	Homer, Bannock		PIUTE-FENNER	1, 2	openr
699088	Homer		PIUTE-FENNER	1	openr
699089	Homer, Bannock		PIUTE-FENNER	1, 2	openr
699090	Homer, Bannock		PIUTE-FENNER	1, 2	openr
699091	Homer		PIUTE-FENNER	1	openr
699092	Bannock		PIUTE-FENNER	2	openr
699093	Bannock		PIUTE-FENNER	2	openr
699094	Bannock		PIUTE-FENNER	2	openr

Route #	USGS Topographical Map	Tenure	Desert Tortoise Area	Map #	Proposed Plan Designations
699097	Bannock		PIUTE-FENNER	2	closedf
699098	E Homer Mountain	BLM/PVT	PIUTE-FENNER	4	limiteda
699100	Homer Mountain		PIUTE-FENNER	3	openr
699101	Homer Mountain, Homer, W Flattop Mountain		PIUTE-FENNER	1, 3, 22	openr
699101	Homer Mountain, W Flattop Mountain		PIUTE-FENNER	3, 22	openp
699102	Homer Mountain, Homer		PIUTE-FENNER	1, 3	closedp
699103	E Homer Mountain		PIUTE-FENNER	4	closedg
699104	Ivanpah Lake, Stateline Pass		IVANPAH	7, 12	openr
699105	Bannock		PIUTE-FENNER	2	closedf
699107	Ivanpah Lake		IVANPAH	7	openr
699108	Homer		PIUTE-FENNER	1	openr
699109	Clark Mountain		IVANPAH	11	closedg
699110	Clark Mountain		IVANPAH	11	closedg
699111	Desert		IVANPAH	8	limitedp
699112	Desert		IVANPAH	8	closedg
699113	Desert		IVANPAH	8	openr
699117	Homer Mountain		PIUTE-FENNER	3	openr/b
699119	Ivanpah Lake	BLM/PVT	IVANPAH	7	closeda
699120	Clark Mountain		IVANPAH	11	openp/sp
699135	Kingston Spring, E Kingston Spring, Ivanpah Lake, Clark Mountain, Turquoise Mountain, Pachalka Spring		SHADOW VALLEY IVANPAH	7, 11, 14, 15, 16,21	openp/b/sp
699144	Bannock		PIUTE-FENNER	2	openr/b
699145	Homer Mountain		PIUTE-FENNER	3	openr
699146	E Kingston Spring	BLM/PVT	SHADOW-VALLEY	14	opena
699181	Ivanpah Lake, Clark Mountain	water source spring	IVANPAH	7, 11	openw
699193	Clark Mountain	water source comment Hackberry Spring	IVANPAH	11	closedw
699194	Ivanpah Lake		IVANPAH	7	closedn
699195	Ivanpah Lake, Clark Mountain		IVANPAH	7, 11	openr
699196	Clark Mountain		IVANPAH	11	openr
699197	Clark Mountain		IVANPAH	11	openr

Route #	USGS Topographical Map	Tenure	Desert Tortoise Area	Map #	Proposed Plan Designations
699198	Ivanpah Lake, Clark Mountain		IVANPAH	7, 11	openr
699199	Clark Mountain	water source in NPS	IVANPAH	11	openr/w
699219	Clark Mountain		IVANPAH	11	openr
699220	Ivanpah Lake, Clark Mountain		IVANPAH	7, 11	openr
699221	Ivanpah Lake, Clark Mountain	water source two springs	IVANPAH	7, 11	openr/w
699222	Clark Mountain	BLM/PVT	IVANPAH	11	openr
699223	Clark Mountain		IVANPAH	11	openr
699224	Clark Mountain	water source in NPS	IVANPAH	11	openr
699225	Clark Mountain		IVANPAH	11	closedn
699226	Ivanpah Lake, Clark Mountain	BLM/PVT	IVANPAH	7, 11	openr
699227	Clark Mountain	BLM/NPS	IVANPAH	11	opena
699228	Desert, Nipton		IVANPAH	8, 10	openr
699229	Desert, Nipton		IVANPAH	8, 10	openr
699230	Desert	water source range improv	IVANPAH	8	limited/closedw
699231	Desert	BLM/PVT	IVANPAH	8	closeda
699232	Ivanpah Lake, Desert, Nipton	BLM/PVT	IVANPAH	7, 8, 10	opena
699233	Clark Mountain	water source comment sg guzzler	IVANPAH	11	openw
699234	Ivanpah Lake		IVANPAH	7	openr
699236	Ivanpah Lake	BLM/PVT	IVANPAH	7	openr/a
699238	Ivanpah Lake		IVANPAH	7	openr
699239	Ivanpah Lake		IVANPAH	7	openr
699241	Ivanpah Lake	BLM/PVT	IVANPAH	7	opena
699242	Ivanpah Lake		IVANPAH	7	openr
699243	Nipton	railroad row	IVANPAH	10	Unclassified
699244	Ivanpah Lake, Mineral Hill		IVANPAH	7, 9	openr
699245	Ivanpah Lake, Mineral Hill	water source sg guzzler	IVANPAH	7, 9	closedw
699246	Mineral Hill	water source sg guzzler	IVANPAH	9	openr/w
699247	Ivanpah Lake, Desert, Nipton		IVANPAH	7, 8, 9	limitedr
699248	Ivanpah Lake	BLM/PVT	IVANPAH	7	limiteda

Route #	USGS Topographical Map	Tenure	Desert Tortoise Area	Map #	Proposed Plan Designations
699249	Ivanpah Lake, Mineral Hill	BLM/PVT	IVANPAH	7, 9	limiteda
699250	Ivanpah Lake		IVANPAH	7	openr
699251	Ivanpah Lake	BLM/PVT	IVANPAH	7	limiteda
699252	Ivanpah Lake	BLM/PVT	IVANPAH	7	limiteda
699253	Ivanpah Lake, Mineral Hill	BLM/PVT	IVANPAH	7, 9	opena
699254	Ivanpah Lake		IVANPAH	7	closedn
699255	Ivanpah Lake, Desert		IVANPAH	7, 8	closedn
699256	Ivanpah Lake, Clark Mountain	water source comment Burro Spring	IVANPAH	7, 11	limitedw
699373	E Kingston Spring, Pachalka Spring	water source Francis Spr	SHADOW-VALLEY	14, 17	openr/w
699375	E Kingston Spring, Valley Wells, Pachalka	BLM/PVT	SHADOW-VALLEY	14, 17, 18	opena
699376	E Kingston Spring, Valley Wells, Pachalka	BLM/PVT	SHADOW-VALLEY	14, 17, 18	openr/limiteda/ closedn
699377	Solomon's Knob		SHADOW-VALLEY	17	openr
699378	Solomon's Knob		SHADOW-VALLEY	17	openr
699379	Solomon's Knob		SHADOW-VALLEY	17	closedg
699379	Solomon's Knob		SHADOW-VALLEY	17	closedg
699380	Ivanpah Lake		IVANPAH	7	closedg
699381	Nipton	Spur off Railroad Right-of-way	IVANPAH	10	closeda
699382	Mineral Hill	BLM/PVT	IVANPAH	9	limiteda
699383	Mineral Hill	BLM/PVT	IVANPAH	9	limiteda
699384	Ivanpah Lake, Mineral Hill		IVANPAH	7, 9	limitedp
699385	Ivanpah Lake	BLM/PVT	IVANPAH	7	limiteda
699386	Ivanpah Lake, Desert, Nipton	BLM/PVT	IVANPAH	7, 8, 10	limiteda
699387	Ivanpah Lake	BLM/PVT	IVANPAH	7	limiteda
699388	Valley Wells, Clark Mountain	BLM/PVT	SHADOW-VALLEY	11,18	limiteda/openp
699389	Valley Wells, Pachalka Spring, Turquoise Mountain		SHADOW-VALLEY	16, 17, 18	openp
699445	Valley Wells		SHADOW-VALLEY	18	closedn
699451	Valley Wells	water source spring	SHADOW-VALLEY	18	openw
699452	Valley Wells	wilderness trailhead access	SHADOW-VALLEY	18	openr
699453	Solomon's Knob		SHADOW-VALLEY	17	openr/t
699454	Solomon's Knob, Valley Wells		SHADOW-VALLEY	17, 18	openr

Route #	USGS Topographical Map	Tenure	Desert Tortoise Area	Map #	Proposed Plan Designations
699456	Solomon's Knob, Valley Wells		SHADOW-VALLEY	17, 18	closedn
699457	Valley Wells	BLM/NPS	SHADOW-VALLEY	18	limiteda
699459	Valley Wells		SHADOW-VALLEY	18	closedn
699460	Valley Wells	BLM/PVT	SHADOW-VALLEY	18	closed/limiteda
699461	Valley Wells	BLM/PVT	SHADOW-VALLEY	18	limiteda
699463	Valley Wells	BLM/PVT	SHADOW-VALLEY	18	limiteda
699472	Solomon's Knob	BLM/PVT	SHADOW-VALLEY	17	limiteda
699473	Solomon's Knob		SHADOW-VALLEY	17	openr
699474	Solomon's Knob		SHADOW-VALLEY	17	openr
699475	Solomon's Knob		SHADOW-VALLEY	17	openr
699476	Solomon's Knob, Turquoise Mountain		SHADOW-VALLEY	16, 17	openr
699477	Solomon's Knob	water source spring	SHADOW-VALLEY	17	openr/w
699478	Solomon's Knob		SHADOW-VALLEY	17	openr
699479	Solomon's Knob, Turquoise Mountain		SHADOW-VALLEY	16, 17	openr
699480	Solomon's Knob	water source spring & corral	SHADOW-VALLEY	17	openr/w
699481	Solomon's Knob	BLM/PVT	SHADOW-VALLEY	17	closeda
699482	Solomon's Knob, Turquoise Mountain		SHADOW-VALLEY	16, 17	closedz
699483	Solomon's Knob, Turquoise Mountain		SHADOW-VALLEY	16, 17	openr
699484	Solomon's Knob, Turquoise Mnt.		SHADOW-VALLEY	16, 17	openr
699486	Solomon's Knob		SHADOW-VALLEY	17	openr
699487	Solomon's Knob	water source sg guzzler	SHADOW-VALLEY	17	openr/w
699488	Solomon's Knob, Turquoise Mountain		SHADOW-VALLEY	16, 17	openr
699489	Solomon's Knob		SHADOW-VALLEY	17	openr
699490	Solomon's Knob		SHADOW-VALLEY	17	closedz
699491	Solomon's Knob	BLM/PVT	SHADOW-VALLEY	17	opena
699492	Solomon's Knob	BLM/PVT	SHADOW-VALLEY	17	opena
699493	Solomon's Knob		SHADOW-VALLEY	17	closedg
699495	Solomon's Knob		SHADOW-VALLEY	17	closedg
699496	Solomon's Knob	BLM/PVT	SHADOW-VALLEY	17	opena

Route #	USGS Topographical Map	Tenure	Desert Tortoise Area	Map #	Proposed Plan Designations
699498	Solomon's Knob		SHADOW-VALLEY	17	closedn
699499	Solomon's Knob		SHADOW-VALLEY	17	closedz
699501	Solomon's Knob		SHADOW-VALLEY	17	openr
699502	Solomon's Knob		SHADOW-VALLEY	17	openr
699503	Solomon's Knob	BLM/PVT	SHADOW-VALLEY	17	opena
699505	Solomon's Knob	comment	SHADOW-VALLEY	17	openr
699507	Solomon's Knob		SHADOW-VALLEY	17	closedz
699508	Solomon's Knob		SHADOW-VALLEY	17	closedn
699509	Solomon's Knob		SHADOW-VALLEY	17	closedn
699510	Solomon's Knob		SHADOW-VALLEY	17	closedn
699511	Solomon's Knob		SHADOW-VALLEY	17	closedn
699512	Solomon's Knob		SHADOW-VALLEY	17	openr
699515	Solomon's Knob		SHADOW-VALLEY	17	openp
699516	Solomon's Knob, Halloran Spring, Turquoise Mountain		SHADOW-VALLEY	16, 17, 19	openp/limiteda
699517	Solomon's Knob		SHADOW-VALLEY	17	closedf
699518	Solomon's Knob		SHADOW-VALLEY	17	openr
699519	Solomon's Knob		SHADOW-VALLEY	17	closedn
699520	Solomon's Knob		SHADOW-VALLEY	17	closedf
699521	Solomon's Knob		SHADOW-VALLEY	17	openr
699522	Solomon's Knob		SHADOW-VALLEY	17	openr
699523	Solomon's Knob		SHADOW-VALLEY	17	openr
699531	Turquoise Mountain		SHADOW-VALLEY	16	openp
699547	Pachalka Spring	BLM/PVT	SHADOW-VALLEY	15	limiteda
699548	Pachalka Spring	BLM/PVT water source sg guzzler	SHADOW-VALLEY	15	opena/w
699552	Pachalka Spring	water source	SHADOW-VALLEY	15	limitedw
699560	Turquoise Mountain		SHADOW-VALLEY	16	openr
699561	Turquoise Mountain		SHADOW-VALLEY	16	openr
699562	Turquoise Mountain		SHADOW-VALLEY	16	closedg
699563	Turquoise Mountain, Halloran Spring	BLM/PVT	SHADOW-VALLEY	16, 19	opena
699564	Turquoise Mountain		SHADOW-VALLEY	16	openr
699565	Turquoise Mountain		SHADOW-VALLEY	16	openr
699566	Turquoise Mountain	BLM/PVT	SHADOW-VALLEY	16	opena

Route #	USGS Topographical Map	Tenure	Desert Tortoise Area	Map #	Proposed Plan Designations
699567	Turquoise Mountain		SHADOW-VALLEY	16	openr
699568	Turquoise Mountain		SHADOW-VALLEY	16	closedg
699569	Turquoise Mountain		SHADOW-VALLEY	16	openr
699570	Turquoise Mountain		SHADOW-VALLEY	16	closedg
699571	Turquoise Mountain	comment	SHADOW-VALLEY	16	closed
699572	Turquoise Mountain	water source sg guzzler	SHADOW-VALLEY	16	openw
699573	Turquoise Mountain		SHADOW-VALLEY	16	openr
699574	Turquoise Mountain		SHADOW-VALLEY	16	closedf
699575	Turquoise Mountain		SHADOW-VALLEY	16	openr
699576	Turquoise Mountain	water source Hytens Well	SHADOW-VALLEY	16	openr/w
699577	Turquoise Mountain		SHADOW-VALLEY	16	openr
699578	Turquoise Mountain		SHADOW-VALLEY	16	closedg
699579	Turquoise Mountain		SHADOW-VALLEY	16	openr
699580	Turquoise Mountain, Halloran Spring		SHADOW-VALLEY	16, 19	openr
699581	Turquoise Mountain	water source sg guzzler	SHADOW-VALLEY	16	openr/w
699582	Solomon's Knob		SHADOW-VALLEY	17	openr
699585	Turquoise Mountain		SHADOW-VALLEY	16	openr
699586	Turquoise Mountain		SHADOW-VALLEY	16	openr
699587	Turquoise Mountain	BLM/PVT	SHADOW-VALLEY	16	limiteda
699588	Turquoise Mountain		SHADOW-VALLEY	16	closedf
699589	Turquoise Mountain		SHADOW-VALLEY	16	openr
699590	Turquoise Mountain		SHADOW-VALLEY	16	openr
699591	Turquoise Mountain	BLM/PVT	SHADOW-VALLEY	16	limiteda
699592	Turquoise Mountain		SHADOW-VALLEY	16	openr
699593	Turquoise Mountain	BLM/PVT	SHADOW-VALLEY	16	limiteda
699594	Turquoise Mountain	BLM/PVT	SHADOW-VALLEY	16	limiteda
699595	Turquoise Mountain	BLM/PVT	SHADOW-VALLEY	16	limiteda
699596	Turquoise Mountain		SHADOW-VALLEY	16	openr
699597	Turquoise Mountain		SHADOW-VALLEY	16	closedf
699598	Turquoise Mountain		SHADOW-VALLEY	16	openr
699599	Turquoise Mountain		SHADOW-VALLEY	16	openr
699600	Turquoise Mountain		SHADOW-VALLEY	16	openr
699601	Solomon's Knob	map error	SHADOW-VALLEY	17	openr

Route #	USGS Topographical Map	Tenure	Desert Tortoise Area	Map #	Proposed Plan Designations
699603	Nipton	BLM/PVT	IVANPAH	10	limiteda
699604	Nipton	BLM/PVT	IVANPAH	10	limiteda
699605	Mineral Hill		IVANPAH	9	closedn
699608	Mineral Hill	comment	IVANPAH	9	closedf
699608	Clark Mountain	map error-duplicate #	IVANPAH	9	n/a
699609	Mineral Hill		IVANPAH	9	closedf
699611	Mineral Hill		IVANPAH	9	openr
699612	Mineral Hill		IVANPAH	9	openr
699613	Mineral Hill		IVANPAH	9	openr
699614	Mineral Hill		IVANPAH	9	openr
699615	Mineral Hill, Clark Mountain		IVANPAH	9, 11	openr
699616	Ivanpah Lake		IVANPAH	7	closedg
699617	Ivanpah Lake		IVANPAH	7	openr
699618	Ivanpah Lake		IVANPAH	7	limitedr
699619	Pachalka Spring		SHADOW-VALLEY	15	openr
699620	Pachalka Spring		SHADOW-VALLEY	15	closedg
699621	Pachalka Spring	water source map error comment range improv.	SHADOW-VALLEY	15	openw
699623	Pachalka Spring	wilderness	SHADOW-VALLEY	15	limiteda
699625	Ivanpah Lake		IVANPAH	7	limitedr
699626	Ivanpah Lake		IVANPAH	7	openr
699628	Valley Wells	BLM/NPS	SHADOW-VALLEY	18	opena
699630	Valley Wells		SHADOW-VALLEY	18	limitedw
699631	Valley Wells, Solomon's Knob		SHADOW-VALLEY	17, 18	closedg
699632	E Kingston Spring, Kingston Spring		SHADOW-VALLEY	14, 21	openr
699700	Goffs		PIUTE-FENNER	23	openp
699701	Goffs		PIUTE-FENNER	23	openr
699704	Goffs	BLM/NPS	PIUTE-FENNER	23	openr
699705	Goffs, Homer		PIUTE-FENNER	1, 23	openr
699706	Fenner Spring		PIUTE-FENNER	24	openr
699707	Fenner Spring		PIUTE-FENNER	24	openr
699708	Fenner Spring		PIUTE-FENNER	24	closeds
699709	Fenner Spring		PIUTE-FENNER	24	closedn

Route #	USGS Topographical Map	Tenure	Desert Tortoise Area	Map #	Proposed Plan Designations
699710	Fenner Spring		PIUTE-FENNER	24	closedn
699711	Fenner Spring		PIUTE-FENNER	24	closedd
699712	Fenner Spring		PIUTE-FENNER	24	closedn
699713	Fenner Spring		PIUTE-FENNER	24	closedn
699714	Fenner Spring	BLM/PVT	PIUTE-FENNER	24	closeda
699715	Fenner Spring	BLM/PVT	PIUTE-FENNER	24	closeda
699911	E Kingston Spring		SHADOW-VALLEY	14	closedg
699913	E Kingston Spring		SHADOW-VALLEY	14	openr
699914	E Kingston Spring	BLM/PVT	SHADOW-VALLEY	14	opena
699914	Solomon's Knob	map error	SHADOW-VALLEY	17	closedg
699915	E Kingston Spring	BLM/PVT	SHADOW-VALLEY	14	opena
699916	E Kingston Spring		SHADOW-VALLEY	14	openr
699917	E Kingston Spring		SHADOW-VALLEY	14	openr
699918	E Kingston Spring	wilderness	SHADOW-VALLEY	14	closeda
699919	E Kingston Spring	BLM/PVT	SHADOW-VALLEY	14	opena
699920	E Kingston Spring		SHADOW-VALLEY	14	openr
699921	E Kingston Spring	BLM/PVT	SHADOW-VALLEY	14	opena
699923	E Kingston Spring		SHADOW-VALLEY	14	closedg
699924	E Kingston Spring		SHADOW-VALLEY	14	openr
699925	Valley Wells, E Kingston Spring		SHADOW-VALLEY	18, 14	closedg
699926	Valley Wells, E Kingston Spring		SHADOW-VALLEY	18, 14	closedg
699927	Solomon's Knob	water source	SHADOW-VALLEY	17	openr/w
699928	Halloran Spring		SHADOW-VALLEY	19	openr
699929	Halloran Spring		SHADOW-VALLEY	19	openr
699930	Halloran Spring		SHADOW-VALLEY	19	openr
699931	Halloran Spring		SHADOW-VALLEY	19	openr
699932	Halloran Spring		SHADOW-VALLEY	19	closedg
699937	Solomon's Knob		SHADOW-VALLEY	17	closedg
699938	Solomon's Knob		SHADOW-VALLEY	17	closedg
699939	Solomon's Knob		SHADOW-VALLEY	17	closedg
699941	Solomon's Knob		SHADOW-VALLEY	17	closedg
699944	Clark Mountain	map error	SHADOW-VALLEY	11	openr
699945	Clark Mountain	map error	SHADOW-VALLEY	11	openr
699946	Clark Mountain		SHADOW-VALLEY	11	openr

Route #	USGS Topographical Map	Tenure	Desert Tortoise Area	Map #	Proposed Plan Designations
699947	Clark Mountain		SHADOW-VALLEY	11	openr
699948	Clark Mountain		SHADOW-VALLEY	11	openr
699949	Clark Mountain	BLM/NPS	SHADOW-VALLEY	11	opena
699950	Pachalka Spring	BLM/NPS	SHADOW-VALLEY	15	limiteda
700001	Turquoise Mountain, Halloran Spring, Solomon's Knob	wash unit	SHADOW-VALLEY	16, 17, 19	openr
700002	Turquoise Mountain, Solomon's Knob, Halloran Spring	wash unit	SHADOW-VALLEY	16, 17, 19	openr
700003	Pachalka Spring, Valley Wells	wash unit water source	SHADOW-VALLEY	15, 18	openr/w
700004	Bannock, W Juniper Mine, E Homer Mountain	wash unit water source	PIUTE-FENNER	2, 4, 5	openr/w
700005	Homer	wash unit	PIUTE-FENNER	1	Openr

Route Designation Definitions:

- a** = route accesses private lands, NPS or Nevada public lands, or wilderness trailhead.
 - b** = sensitive bird species found in the area (Bendire's thrasher, golden eagle).
 - f** = route fragment or spur.
 - g** = redundant route.
 - n** = Non-route or partial non-route due to not being an approved part of the inventory.
- Unauthorized routes created after the CDCA Plan inventory, are generally not approved in the DWMA's if they are reclaiming, play area or shortcut routes. Exceptions include routes that provide reasonable alternatives to problem routes (e.g. eroding routes) and routes that connect to the open route network, which may be only partial non-routes.
- p** = pipeline, power line gas line, transmission line, communication site.
 - r** = popular recreational route used for vehicle touring, rock hounding, hunting, historic mining exploration, camping, hiking and equestrian access, etc.
 - s** = sensitive plant species can be found in proximity to the route (Rusby's desert mallow, Howe's hedgehog cactus).
 - t** = high-density tortoise area.
 - w** = proximity (400 meters) to water source, either natural or artificial, such as spring, small game guzzler, or range improvement.
 - z** = non-existent or partially non-existent due to natural reclamation from little or no use; Use may have been precluded by private landowner or mining claimant (fencing).

Table Q.2 –Water Sources

Route #	Water Source Description ³	Management Action	Protection Measure	Total \$	Priority	Water Source Location	Route Design	FY to Finish
700003	springs/small game guzzlers	Install interpretive wayside exhibit near the entrance of the wash unit that would provide information about the area, protection of sensitive resources, and a map of open and closed routes. Delineate a small parking area. Install small signs along wash unit to read: "Help Protect Sensitive Resources - Stay on Open Routes". Reclaim old jeep tracks on closed wash routes to discourage unauthorized use.	Wayside Exhibit: \$1,500 Materials: \$800 Parking: \$1,000 Labor & Per Diem: \$2,700	\$6,000	high	along wash unit	open	FY02-04
699004	small game guzzler	install metal sign:	Materials: \$25, Sign: \$25, Labor & Per Diem: \$100	\$150	low	along wash unit	open	FY08-10
700004	small game guzzler	Install interpretive wayside exhibit near the entrance of the wash unit that would provide information about the area, protection of sensitive resources, and a map of open and closed routes. Delineate a small parking area. Install small signs along wash unit to read: "Help Protect Sensitive Resources - Stay on Open Routes". Reclaim old jeep tracks on closed wash routes to discourage unauthorized use.	Wayside Exhibit: \$1,500 Materials: \$800 Parking: \$1,000 Labor & Per Diem: \$2,700	\$6,000	high	along wash unit	open	FY02-04

³ Water sources will not be signed at the route but at the site itself. It is our intention not to draw attention to small game guzzlers, springs, or range improvements, but to educate those who encounter them. This will be accomplished through education (e.g., signs and markers). Under the NEMO Plan the protection of sensitive resources will be enforced in a lesser restrictive manner. In the event these measures prove ineffective, more restrictive measures will be taken (e.g., barriers, fences, gates).

Route #	Water Source Description ³	Management Action	Protection Measure	Total \$	Priority	Water Source Location	Route Design	FY to Finish
699026	range improv.	Install small metal sign	Materials: \$25 Sign: \$25, Labor: \$100	\$150	low	ends	open	FY08-10
699028	small game guzzler	Install small metal sign at site (not along the route).	Materials: \$25 Sign: \$25, Labor: \$100	\$150	medium	along wash unit	open	FY05-07
699048	small game guzzler	Install small metal sign at site (not along the route).	Materials: \$25, Sign: \$25, Labor: \$100	\$150	medium	intersects	open	FY05-07
699058 699059	range improv.	Water tank currently not being used. Install carsonites at route closure.	Carsonites: \$72, Labor: \$50	\$122	high	058 intersects 059	both closed	FY02-04
699062	range improv.	install carsonite markers at route closure.	Carsonites: \$72, Labor: \$50	\$122	high	ends	closed	FY02-04
699181	spring	Spring is located on NPS, no action	N/A	\$0	none	leads to	open	N/A
699193	spring	Spring is located on NPS, no action	N/A	\$0	none	leads to	open	N/A
699199	spring, range improvement	water source located on NPS lands	N/A	\$0	none	leads to	open	N/A
699221	two springs	Fence spring(s) if necessary to keep burros/cattle/humans out	Materials: \$800, Sign: \$50, Fence: \$1600, Labor & Per Diem: \$2700	\$5,150	high	ends	open	FY02-04
699224	spring	N/A	N/A	N/A	none	leads to	open	N/A
699230	range improv.	install carsonite markers at route closure.	Carsonites: \$72, Labor: \$50	\$122	low	along	closed	FY08-10
699233	small game guzzler	Install small metal sign at site (not along the route).	Materials: \$25 Sign: \$25, Labor: \$100	\$150	high	ends	open	FY02-04
699245	range improv.	install carsonite markers at route closure.	Carsonites: \$72, Labor: \$50	\$122	low	along	closed	FY08-10
699246	small game guzzler	Install small metal sign at site (not along the route).	Materials: \$ Sign: \$50	\$150	medium	along	open	FY05-07
699256	Burro spring	Fence spring(s) if necessary to keep burros/cattle/humans out	Materials: \$800, Sign: \$50 Fence: \$800, Carsonites: \$72, Labor & Per Diem: \$2700	\$4,422	low	along	limited	FY08-10

Route #	Water Source Description ³	Management Action	Protection Measure	Total \$	Priority	Water Source Location	Route Design	FY to Finish
699373	Francis Spring	Fence spring(s) if necessary to keep burros/cattle/humans out	Materials: \$800, Sign: \$50 Fence: \$800, Carsonites: \$72, Labor & Per Diem: \$2700	\$4,422	low	along	open	FY08-10
699451	spring	Fence spring(s) if necessary to keep burros/cattle/humans out	Materials: \$800, Sign: \$50 Fence: \$800, Carsonites: \$72, Labor & Per Diem: \$2700	\$4,422	low	along	open	FY08-10
699477	spring	Fence spring(s) if necessary to keep burros/cattle/humans out	Materials: \$800, Sign: \$50 Fence: \$800, Carsonites: \$72, Labor & Per Diem: \$2700	\$4,422	low	along	open	FY08-10
699480	Bull spring/range improvement	Install carsonite markers at route closure. Fence spring if necessary to keep burros/cattle/humans out	Materials: \$800, Sign: \$50 Fence: \$800, Carsonites: \$72, Labor & Per Diem: \$2700	\$4,422	medium	along	open	FY05-07
699487	small game guzzler	Install small metal sign at site (not along the route).	Materials: \$25 Sign: \$25, Labor: \$100	\$150	high	ends	open	FY02-04
699548	small game guzzler	Install small metal sign at site (not along the route).	Materials: \$25 Sign: \$25, Labor: \$100	\$150	low	along	open	FY08-10
699552	spring	N/A	N/A	\$0	none	leads to	limited	N/A
699572	small game guzzler	Install small metal sign at site (not along the route).	Materials: \$25 Sign: \$25, Labor: \$100	\$150	low	along	open	FY08-10
699576	range improv. Hyten's well	none at this time	N/A	0	none	end	open	N/A
699581	small game guzzler	Install small metal sign at site (not along the route).	Materials: \$25 Sign: \$25, Labor: \$100	\$150	low	along	open	FY08-10
699621	range improv.	water tank is located in the Kingston Range Wilderness	none	0	none	leads to	open	N/A

Route #	Water Source Description ³	Management Action	Protection Measure	Total \$	Priority	Water Source Location	Route Design	FY to Finish
699927	see 699487	the small guzzler at the end of 699487 is near 699927, Install small metal sign at site (not along the route).	Materials: \$25 Sign: \$25, Labor: \$100	\$150	low	along	open	FY08-10
no number	Halloran Spring/ small game guzzler	Halloran spring is located just north of I-15 along Halloran Springs Rd (a paved road). The small game guzzler is located further north off the road. Major work needs to be done at Halloran Springs. Install interpretative kiosk, fence spring and pipe water to a trough for burros, delineate parking area, and install small metal signs at both sites.	Kiosk: \$2500, Parking: \$1000, Materials for Piping/Trough: \$2,500, Materials & Signs: \$400, \$ Fence: \$1,600, Labor & Per Diem: \$10,000	\$18,000	high	along	open	FY02-04

Page Intentionally Left Blank