

## **DESERT RIPARIAN POLICY – INFORMATIONAL OVERVIEW**

In December 2005, the Off-Highway Motor Vehicle Recreation (OHMVR) Commission adopted its Desert Riparian Policy (Policy). In the intervening period much discussion has ensued within the various affected communities regarding this policy; related litigation has also occurred.

To assist in better understanding the Policy, OHMVR Division staff initially met with TRA Environmental Services and caused an analysis to be performed as follows:

- Review of related public documents and policies.
- Analysis of Policy language and ramifications to OHMVR Division programming mandates.
- Inventory of existing pertinent classification systems.
- Development of key policy informational items for consideration.
- Potential implementation benchmarks.
- Delineation of current items and issues in need of further OHMVR Commission deliberation.

Further refinement to understanding of Policy ramifications occurred in subsequent discussions with the U.S. Bureau of Land Management, due to their large management presence in California desert areas, and with OHMVR Commission Policy subcommittee representative Judith Anderson.

The documents attached serve to detail the OHMVR Division's efforts to date in better understanding the Policy and highlight the need to provide the highest levels of clarity for implementation purposes.

**Off-Highway Motor Vehicle Recreation (OHMVR) Division  
OHMVR Commission Desert Riparian Policy  
Staff Review  
December 2006**

**STAFF RECOMMENDATION**

In November 2006 the OHMVR Commission Desert Riparian Policy (Policy) subcommittee representative met with staff from the United States Bureau of Land Management (BLM) and the OHMVR Division to discuss the final Policy analysis. Based upon this discussion, the OHMVR Commission should now consider at its December 2006 meeting, as an informational item, the OHMVR Division Staff Review of the Policy, with substantive discussion to be agendized at the January 2007 OHMVR Commission hearing, or best available subsequent date.

***Policy informational points to be considered are:***

- Use of *A Manual of California Vegetation* (MCV) (Sawyer and Keeler-Wolf 1995) as basis of the primary policy definition, with need to refine the extent of inclusion.
- OHMVR Division grants and cooperative agreement applicant self certification of compliance with the policy. Site compliance reviews to be performed by OHMVR Division on randomized basis to confirm that subject areas are not under encroachment by OHV activities where specifically funded via the OHMVR Division grants and cooperative agreements program.
- Above applicant demonstration of policy consistency via implementation of the Wildlife Habitat Protection Program/Habitat Management Program (WHPP/HMP). The WHPP/HMP to be primary means to assess compelling need and determine where basic compliance may not be met; will be inclusive of definitional riparian areas.
- Desert Riparian list prioritization.
- Office of Administrative Law (OAL) regulatory requirements.

***Benchmarks:***

- Potential December 2006/January 2007 language development for incorporation into the 2007 permanent regulations for adoption in spring 2007 or during the next OAL regulatory revision cycle as appropriate.
- January/early 2007 substantive OHMVR Commission discussion, including suggested regulation language to implement the Policy.
- Summer 2007 OHMVR Division to develop and propose creation of a list of priority riparian areas and how the list may be disclosed to maximize substantive benefits, while protecting locations of sensitive areas.

## **OVERVIEW**

In December 2005, the OHMVR Commission adopted the following policy regarding desert riparian areas:

*Because desert riparian areas are very important for wildlife, water quality, and non-motorized recreation, and California has already lost over 90% of our desert riparian areas, desert riparian lands should be conserved and restored, and protected in their natural state. ORV recreation should not be expanded, encouraged, or maintained in fragile desert riparian landscapes.*

*It is the policy of the Commission that absent extraordinary and demonstrable need, it will not fund or support any grants or cooperative agreements which will directly or indirectly encourage, increase, or maintain off-road vehicle use in or through the bed, bank, or channel of any existing desert riparian botanical area. The Commission shall maintain a list of priority Desert Riparian lands and shall evaluate the list at least every five years to maintain the integrity of these protected areas. The Division shall not solicit or approve any grant or cooperative agreement which will develop or reestablish OHV use in a desert riparian area unless exempted from this policy by noticed vote of the Commission.*

An excerpt from the California Wildlife Habitat Relationships (CWHR) System (attached) was forwarded to the OHMVR Division from Commissioner Thomas with the recommendation its desert riparian related definition and characterization be adopted for policy implementation purposes.

## **DISCUSSION**

In the intervening period, OHMVR Division staff and TRA Environmental Sciences, Inc., (TRA) have examined a wide range of public documents and policies in an attempt to provide clarity to the above language. The following is an overview of the existing information analysis performed.

### ***CWHR System***

The CWHR System is an information system for California's wildlife, containing life history, geographic range, habitat relationships, and management information on wildlife known to occur in the state. Maintained by California Department of Fish and Game (CDFG), the CWHR System now includes 59 habitats. The CWHR System definition of desert riparian provides general information on the structure and composition of vegetation, the habitat stages (i.e., vegetation changes, duration of stages), biological setting, physical setting, and distribution throughout California. Vegetation structure is “characterized as dense groves of low, shrub-like trees or tall shrubs to woodlands of small to medium-sized trees. These habitats are found adjacent to permanent surface water (e.g., streams, springs) or in naturally subirrigated areas...” (CDFG 1988). According to the CWHR System, plant species that may be found in desert riparian areas

include tamarisk, velvet ash, mesquite, Fremont cottonwood, willows, desert lavender, and arrowweed, among others. Desert riparian is often found adjacent to desert washes, desert scrub, and palm oasis. Soils vary from silty alluvial to rocky, sandy, well-drained substrates that are generally moist. Some soils may be dry on the surface with moisture beginning at a depth of several meters. The complete CWHR System description of desert riparian and a generalized map can be found in Appendix A.

The CWHR System habitat descriptions were developed by biologists primarily to classify and predict habitat value for terrestrial vertebrate wildlife species. Therefore, the habitats do not represent a comprehensive classification scheme for the conservation and mapping of California's terrestrial vegetation (CDFG 1988). Given the general nature of the CWHR System habitat descriptions and its focus on wildlife relationships to habitat, this definition appears not appropriate for implementing the OHMVR Commission policy. Additionally, this definition does not provide any specific systematic guidelines on how to determine if a habitat in question should be classified as desert riparian. The map itself merely illustrates the broad geographic region within which desert riparian habitat potentially occurs and could not provide a foundation for implementing the policy.

#### *California Natural Diversity Database (CNDDDB) and the MCV*

The CNDDDB is a program maintained by CDFG that inventories the status and locations of rare plants and animals in California. The CNDDDB includes a list of terrestrial natural communities. Although the species occurrences are routinely updated, the list of terrestrial natural communities in CNDDDB was last updated in September 2003. The CNDDDB classifications are based on the MCV. This list assigns each habitat type a unique seven digit code. These seven digits are broken up into three categories separated by a period (e.g., 61.311.02). The first two numbers denote the general physiognomic, physical location, and general habitat. They may categorize habitat units the same even if they do not have any common species. For example, open stands of pinyon pine or Engelmann oak are both described as woodlands, yet they share few if any plant taxa (Sawyer and Keeler-Wolf 1995). The next three numbers denote the floristic vegetation alliance. An alliance is based on the dominant (or diagnostic) species of the stand, which are usually of the uppermost and/or dominant height stratum (e.g., Sycamore alliance). The last two numbers denote the vegetation association that defines the secondary species (e.g., California Sycamore/Soft Chess). Associations are subdivisions of alliances based on constant patterns of additional species within an overall pattern of alliance dominance. Thus, each group of numbers, moving from left to right, provides more specific details regarding the particular vegetation type. The CNDDDB contains some mapping of the more rare and sensitive vegetation alliances, including Mojave Riparian Forest. However, in many cases the mapping is not complete or not very specific.

Following this method of classification, the concept of desert riparian likely falls under the umbrella of Riparian and Bottomland Habitat (60.000.00) and is further differentiated by either Riparian Forest and Woodland (61.000.00) or Low to High Elevation Riparian Scrub (63.000.00). It is likely that most desert riparian habitat would be classified under these two general habitats. More specific vegetation alliances within these general

habitats include, but are not limited to, Fremont Cottonwood Riparian Forest and Woodlands (61.130.00), Mesquite Woodland (61.510.00), and Tamarisk Scrubs and Woodlands (63.810.00). These alliances are broken down into various associations such as Mojave Riparian (61.130.04), Mesquite-Willow (61.510.07), and Shrub Tamarisk (63.810.02).

The MCV is in the process of being updated and a new version may be released sometime in 2007. This updated version will include new definitions for desert vegetation types and presumably desert riparian. The CNDDDB list of terrestrial natural communities will also be updated with any new information contained in the MCV.

The CNDDDB vegetation classification system could be used as a basis for defining species specific vegetation alliances that would be considered desert riparian. This classification allows for less observer variation than the CWHR System general definition because it requires the observer to identify the dominant species within a vegetation stand.

#### ***Vegetation Classification of Joshua Tree National Park***

The CDFG completed *Vegetation Classification of Joshua Tree National Park* (JTNP) for the National Park Service in March 2005. JTNP is located in Riverside and San Bernardino Counties and straddles the gradational boundary between the higher elevation Mojave Desert ecosystem and the warmer Colorado Desert ecosystem. Currently, JTNP contains 794,000 acres of land including 585,000 acres of wilderness (CDFG 2005). The JTNP report classifies vegetation following the standard floristic hierarchy of the U.S. National Vegetation Classification System (very similar to the MCV classification) and the MCV as described above.

Desert riparian habitat found within JTNP likely falls into the following three alliances: temporarily flooded cold-deciduous woodland, seasonally flooded temperate broad-leaf evergreen woodland (California Fan Palm association), and temporarily flooded temperate broad-leaved evergreen shrubland (arrow-weed association).

The JTNP report includes details on the methods of field data collection and remote data collection (e.g., the use of aerial photos) used to classify the vegetation within the park. The baseline methodology described in the report could potentially be duplicated in a standardized fashion for other desert regions that have yet to be classified. The report also provides a vegetation identification key and a thorough description/definition of the various vegetation types found there. The vegetation key allows multiple observers to produce similar results when classifying vegetation. This report is the most comprehensive and definitive information that was found on desert riparian and includes some information on water regimes. However, some desert riparian type habitats may not exist within this park and therefore would not have been described.

### *Existing Maps of Desert Riparian*

#### *West Mojave Plan Final Environmental Impact Report (EIR)*

The West Mojave Plan Final EIR contains information on the habitats found within the Plan's boundaries, which include a large portion of western San Bernardino County and smaller portions of Inyo, Los Angeles, and Riverside Counties. Although the Plan does not include detailed descriptions of the vegetation types, it does include a map illustrating the 32 vegetation types. The Plan does not state which classification system was used to designate the 32 vegetation types. There is also a table that provides the ownership and acreage of lands within the Plan boundaries. Vegetation types that likely would fall under the desert riparian umbrella include cottonwood-willow riparian forest and Mojave riparian forest.

#### *Vegetation Classification of Anza-Borrego Desert State Park (ABDSP)*

The CDFG completed *Vegetation Mapping of ABDSP and Environs* for the California Department of Parks and Recreation in March 1998. This report is similar to the report for JTNP described above. It follows the seven-digit code classification system of the CNDDDB and describes a total of 94 vegetation types. Although the maps were not included in the report, maps were produced at a scale of 1:100,000 using ArcPlot module of ARC/INFO GIS software. 7.5' U.S. Geological Survey Quadrangle maps were also prepared using the same software.

The ABDSP report contains a comprehensive table (attached) outlining the relationships between vegetation associations found within ABDSP and other vegetation classifications such as the CWHR System. For example, the table shows that what the MCV refers to as Fremont Cottonwood (61.130.00), the CWHR System refers to as Desert Riparian, and the Joshua Tree Vegetation report referred to as Temporarily flooded cold-deciduous woodland. This table proves to be very useful when trying to understand the different methods of describing vegetation types and how they overlap. Desert riparian habitats found within ABDSP are also found within this table. Some of the classifications include Fremont Cottonwood (61.130.00), Arroyo Willow (61.201.00), and Mesquite Alkaline, spring type (61.510.06).

#### *Vegetation of the Central Mojave*

Kathryn Thomas et al. prepared a report on the vegetation of the Central Mojave (Mojave Desert Ecosystem Program: Central Mojave Vegetation Database Final Report) in 2004. This report has a great description of all the different vegetation alliances found in the Mojave Desert of California, including a variety of riparian vegetation types. Mapping included as part of the report, however, does not include desert riparian as a vegetation type, only desert wash.

***BLM Riparian Zone Cooperative Agreement Application***

The BLM California State Office submitted an application for the OHMVR Division Local Assistance Grants and Cooperative Agreements Program (OR-1-SW-44) for 2007-2008. Project 6 of the application is for Riparian Zone Delineation. Currently, BLM delineation of riparian ecosystems is incomplete and portions already delineated may not be correct. The application does not propose to define desert riparian but will follow the guidelines contained within the 1980 BLM California Desert Conservation Plan. The Plan designates a set of ecosystems termed “Unusual Plant Assemblages” (UPAs) that merit special management attention. Four of the six UPAs partially or entirely consist of riparian ecosystems: 1) vegetation associated with salt and brackish water marshes; 2) vegetation associated with seeps and springs; 3) vegetation associated with palm oases; and 4) vegetation associated with riparian zones and river bottomlands. This application asks for grant money in order to complete the tasks and products listed in the table below. If these tasks are completed, the information gathered may prove useful for the future implementation of the Desert Riparian Policy. It is important to note, however, that the mapping may not be consistent with the MCV.

Item	Task	Product
1	Collect existing information on delineation of desert riparian ecosystems on BLM lands in Imperial, Inyo, Kern, Riverside, San Bernardino, and San Diego counties from BLM, Bureau of Reclamation, US Fish and Wildlife Service, and other agencies.	Summary of mapping to date and synthesis of GIS map layers that contribute to the completing delineation of desert riparian areas according to mapping standards mutually agreeable to BLM, the OHMVR Division, and the OHMVR Commission.
2	Groundtruth, inventory, and delineate riparian zones at rivers, desert springs, oases, and guzzlers on BLM California Desert District and Colorado River District non-wilderness lands.	Complete inventory of riparian zones at rivers, desert springs, oases, and guzzlers on BLM lands in the Mojave and Sonoran Deserts of California.
3	Complete the map delineation of desert riparian ecosystems, using the mutually agreed upon delineation standards.	Delineation and habitat characterization of BLM Desert Riparian Areas that are conservation priorities for the OHMVR Division and Commission.
4	Generate high-resolution GIS map layers of riparian areas for agencies (e.g., BLM, OHMVR Division, CalTrans, Lahonton Regional Water Quality Control Board, USDI Fish and Wildlife Service) and the public.	Authoritative ARC GIS 9.0 map layers for the corresponding four riparian UPAs listed previously, documentation on methods applied for delineation and validation, metadata, and QA/QC procedures.
5	Prioritize, design, and plan projects for OHV route and trail engineering to avoid or mitigate past, existing, or eventual adverse impacts to desert riparian areas.	Prioritization and planning with NEPA documentation and prescriptions for re-engineering designated OHV trails so that impacts to OHMVR-focus desert riparian areas are halted.
6	Prioritize, design, and plan projects for OHV route and trail engineering and for any accompanying riparian restoration.	Prioritization and planning with NEPA documentation and prescriptions for restoring OHMVR-focus desert riparian areas.

## ANALYSIS

The following items require further discussion and resolution before the Desert Riparian Policy can be formally adopted into regulations and subsequently implemented:

1. The term “desert riparian” requires definition; one vegetation classification system needs adoption to eliminate ambiguity surrounding the term. There is an absence of classification consensus, although several sources may be used to get to a definition. Multiple authoritative sources provide a broad range of definitions for desert riparian. No single source provides a final definition for this purpose, however, the above referenced MCV may provide a standardized method to key out vegetation types that can be completed by multiple observers from multiple agencies. The OHMVR Division seeks to develop an appropriate classification system with stakeholder input for OHMVR Commission review and approval.
2. Existing mapping is not comprehensive or consistent enough to allow for policy application. No single map or set of maps can be used by either applicants or OHMVR Division staff to determine whether a trail system, for example, may fall within desert riparian definitional terms.
3. As noted previously, other sensitive habitats with hydrological components found within the desert may not fall under the category of desert riparian. Such habitats, including desert palm oasis, alkali meadow, alkali desert scrub, and fresh emergent wetland, may need consideration for policy implementation. Clarification is needed from the OHMVR Commission in this regard.
4. The desert riparian policy does not mention desert washes, but the OHMVR Division seeks discussion and clarification that it is intended that such washes are not included under policy consideration.
5. It is unclear what specific areas the OHMVR Commission may have intended to be included under the list of priority desert riparian lands. Such a list needs to be developed by the OHMVR Commission, with prioritizations so designated.
6. A description of purpose needs to be developed by the OHMVR Commission for the priority desert riparian lands list.
7. The term “extraordinary and demonstrable need” requires further definition by the OHMVR Commission. Use of such term implies a standard against which a project of effect to desert riparian areas could be judged and subsequently funded.
8. Precise extent of the funding prohibition needs definition by the OHMVR Commission. Two possibly conflicting clauses appear; one prohibits funding or support of grants or cooperating agreements that will “encourage, increase, or maintain” OHV use in desert riparian botanical areas. The word “maintain” suggests ongoing OHV use in some capacity. The other clause is limited to grants and cooperative agreements that either “develop or reestablish OHV use” in desert riparian areas (terms that appear not to apply to ongoing OHV uses). Thus the OHMVR Commission needs to clarify as to whether the policy applies to ongoing uses.
9. The term “desert riparian botanical area” needs definition by the OHMVR Commission. Relationship between this designation and “Desert Riparian lands” and desert riparian area” needs clarification.

10. An actual implementation process needs to be developed. As an example, assuming one desert riparian definition is adopted, would applicants need to state whether requested funds would encourage or facilitate OHV use in lands meeting such a classification? Would OHMVR Division staff make such a determination? Implications for regulatory process adoption also need resolution in this regard.

## **REFERENCES**

- CDFG. 2005. Vegetation Classification of Joshua Tree National Park, Riverside and San Bernardino Counties, California. March 2005.
- CDFG. 1998. Vegetation Mapping of Anza-Borrego Desert State Park and Environs. March 1998.
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- Sawyer and Keeler-Wolf, 1995. A Manual of California Vegetation. California Native Plant Society: Published in Sacramento, California.

## **Personal Communications**

- Julie Evens, Senior Vegetation Ecologist, California Native Plant Society. August 2006.
- Eric Hollenbeck, Environmental Scientist, California Dept. of Parks and Recreation. August 2006.