

Management Action Description		Priority	Cost	Frequency	Status	Quarterly Accomplishments (October 1, 2016 - December 31, 2016)
1.0	Restore, create, and enhance habitat for riparian bird species					
1.1	Identify and prioritize locations for habitat restoration and enhancement					
	Determine sites that have the greatest potential for restoration and result in the most contiguous habitat	H	L	Upon completion of assessment	Process begun. Continue as new properties become available.	Administered contract with Stillwater Sciences to conduct ecohydrological assessment along the Virgin River to assist with restoration planning and property acquisition efforts.
1.2	Develop restoration plans for priority restoration sites					
	Establish restoration goals and objectives, assess site condition and restoration potential, restoration design includes plant materials, planting methods, and weed control	H	M	Upon property acquisition	Muddy River and Virgin River restoration planning is ongoing.	Staff selected a professional engineering firm to develop a grading plan and permitting matrix to inform restoration on the Muddy River Reserve Unit. A draft restoration plan for the Virgin River Reserve Unit is underway.
1.3	Implement restoration plans					
	Implement restoration plans; prepare scope of work/contract; clear vegetation, plant vegetative materials as designed, and fence restoration sites to eliminate cattle trespass, if needed.	H	H	With each restoration project	Muddy River contractor selected	Engineering firm selected for a grading plan for both a 3 acre pilot project and the entire Muddy River Reserve Unit (excluding remote parcels). Native vegetation planted on the Muddy River Reserve Unit continues to thrive and native shrubs are beginning to naturally recruit.
1.4	Monitor and adaptively manage restored riparian habitat					
	Establish success criteria and monitoring schedule; assess success of restoration/enhancement against criteria; continue/augment restoration actions to maintain investment	H	M	Quarterly after restoration enhancement activities phase	Not started.	Continued to photo-document and monitor restoration that was conducted on the Virgin River Reserve Unit, Subunit 1 property in 2014.
1.5	Collaborate collectively with others to manage riparian habitat restoration along the Muddy and Virgin Rivers					
	Collaborate with other agencies for sharing of information on successes, failures, and techniques	H	L	As needed	Ongoing.	Attended the Virgin River Conservation Partnership Symposium and communicated with biologists from multiple agencies about successful restoration activities and challenges.

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1.6	Assess opportunities to obtain water from irrigation districts to support restoration					
	Water from irrigation districts could be used in restoration projects to increase survival of planted materials	H	L	In project planning	Water from irrigation districts could be used in restoration projects to increase survival of planted materials	No activities this quarter.
1.7	When feasible, assess opportunities to establish in-lieu fee agreement with U.S. Army Corps of Engineers for Clean Water Act permit mitigation options					
	Discuss requirements for in-lieu fee agreement with Corps; assess options and locations for establishing agreement	M	L	After assessment of options is completed	Discuss requirements for in-lieu fee agreement with Corps; assess options and locations for establishing agreement	No activities this quarter.
2.0	Manage habitat that benefits other MSHCP species					
2.1	Identify and prioritize sites for restoration					
	Determine sites that have the greatest potential for restoration and result in the most contiguous habitat	H	L	Upon completion of assessment	Process begun.	A reach-scale ecological and hydrological assessment of the Virgin River has been initiated. This project will provide additional data to assist with prioritizing land acquisition efforts and preparing restoration plans.
2.2	Develop restoration plans for priority restoration sites					
	Establish restoration goals and objectives, assess site condition and restoration potential, restoration design includes plant materials, planting methods, and weed control	H	M	Upon property acquisition	Process begun.	Staff continued pre-planning activities to initiate a new project that will result in the development of a grading and restoration plan for the Muddy River Reserve Unit. A draft restoration plan for the Virgin River Reserve Unit is underway.

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2.3	Implement restoration plans					
	Implement restoration plans; prepare scope of work/contract; clear vegetation, plant vegetative materials as designed, and fence restoration sites to eliminate cattle trespass, if needed.	H	H	With each restoration project	Contractor selected for Muddy River grading plan.	Engineering firm selected for a grading plan for both a 3-acre pilot project and the entire Muddy River Reserve Unit (excluding remote parcels). Native vegetation planted on the Muddy River Reserve Unit in Quarter 1 continues to thrive and native shrubs are beginning to naturally recruit.
2.4	Monitor and adaptively manage restored habitat					
	Establish success criteria and monitoring schedule; assess success of restoration/enhancement against criteria; continue/augment restoration actions to maintain investment	H	M	Quarterly after restoration enhancement activities phase	Not started.	Continued to photo-document and monitor restoration that was conducted on the Virgin River Reserve Unit, Subunit 1 property in 2014.
3.0	Manage habitat to avoid harm to aquatic species					
3.1	Coordinate with USFWS on management actions to avoid negative effects to the Moapa dace population					
	Obtain input from USFWS on management actions that may impact the river system. Determine which management actions require input from USFWS.	H	L	Prior to restoration activities that impact the river	No restoration activities of this type occurred.	No activities this quarter.
4.0	Manage reserve units to control invasive plant species and noxious weeds					
4.1	Conduct control activities for invasive species and noxious weeds					
	Prepare contracts, schedule, and implement control activities	H	L	As needed	Ongoing.	National Park Service (NPS) Exotic Plants Management Team (EPMT) continues to monitor and treat weeds at the Muddy River Reserve Unit and provide updates to DCP staff.
4.2	Adaptively manage the control of invasive species and noxious weeds					
	Establish monitoring schedule; assess success of treatment/eradication against criteria; schedule additional treatments as needed	H	L	Seasonally	Ongoing.	NPS EPMT monitors their treatment of weeds at the Muddy River and adapts chemical application techniques as necessary.

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5.0	Manage reserve units to reduce threat of fire and maintain safe conditions					
5.1	Maintain existing fire breaks and establish new fire breaks when necessary					
	Fire breaks control the spatial spread of fire and protects the conservation values of the parcels and the property of adjacent landowners. Prepare contracts, schedule, and implement the maintenance or establishment of fire breaks.	H	M	Ongoing	Ongoing.	No activities this quarter.
6.0	Manage property rights and property infrastructure					
6.1	Update title to and use of groundwater rights					
	The certificated groundwater rights must be changed for title and for use for wildlife purposes.	VH	M	After certificate is received	Completed.	All water rights have been certificated for wildlife purposes.
6.2	Maintain functional municipal water connection and maintain pump equipment					
	Inspect Moapa Valley Water District water connection backflow device, pay monthly connection fees	VH	M	Annually and Monthly respectively	Completed.	No activities this quarter.
6.3	Identify presence and location of operational and abandoned underground utilities (water, sewer, electric)					
	Determine likely locations for utilities; prepare contract, schedule, and implement action to search and assess the underground utilities.	M	L-M	End of project/inspection	Process begun.	Incorporated the search for and potential realignment of utilities into Muddy River grading plan scope of work.
6.4	Maintain existing fencing and add additional fencing if needed					
	Inspect existing fencing on a continual basis, repair fences when needed; assess reserve units for additional fencing needs and installation as needed	H	L	Weekly	Ongoing.	We completed the addition of 360 feet of fencing along Warm Springs Road to prevent unwanted access to the property. Another 140 feet of fencing was constructed allow the Powell's to continue to access their property.
6.5	Obtain permission to cross private lands to access reserve units					
	Determine the timing, frequency, and extent of access needed; contact owners of property where access is needed; obtain written permission for access	VH	L	When permission is needed	Ongoing.	Visited a local land owner along the Virgin River in Mesquite who offered access to Virgin River Subunit 2 through his property.

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6.6	Identify options for road access to Virgin River Reserve Unit, Subunit 1					
	Determine the timing, frequency, and extent of access needed; contact owners of property where access is needed; obtain written permission for access	H	L	Prior to project initiation	Not started.	No activities this quarter.
6.7	Maintain road access to the Muddy River Reserve Unit					
	Monitor condition of access roads; determine type of maintenance needed for safe conditions; conduct maintenance. Weekly to parcels A-E, monthly F-I	H	L	Weekly and monthly	Ongoing.	No activities this quarter.
6.8	Maintain relationships and coordinate with adjacent landowners to protect conservation values of the reserve units					
	Communicate (formal and/or informal, as appropriate) with landowners regarding property management actions, issues, and ongoing and pending projects	H	L	Annually, at year end	Ongoing.	Communication with neighboring landowners at the Muddy River takes place on a weekly to monthly basis, depending on need.
7.0	Build and maintain positive relationships in the community					
7.1	Maintain positive interactions with neighbors					
	Engage with neighbors when safely provided the opportunity	H	L	When possible	Ongoing.	Communication with neighboring landowners at the Muddy River takes place on a weekly to monthly basis, depending on need.
7.2	Perform general maintenance on reserve units as needed					
	Identify and implement maintenance activities, direct maintenance contractor as needed	M	L-H	As needed	Ongoing.	The maintenance contract (McCormick) is in place and work is on-going.
7.3	Be responsive to community concerns related to the reserve units					
	Listen to and respond to concerns from members of the community if appropriate	M	H-VH	As needed	Ongoing.	No activities this quarter.
7.4	Prepare public information material that provides property information to the public					
	Public information can include webpage, signs, interpretive materials that discuss allowable uses, property boundary, resource values and purpose	M	L-M	Biannually	Ongoing.	Website updated.

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8.0	Acquire title to private lands from willing sellers					
8.1	Identify priority parcels for purchase using Acquisition Selection Tool					
	Use the Acquisition Section Tool to assess the priority of parcels when offered by willing sellers	H	L	As parcels are offered by willing sellers	Ongoing.	No activities this quarter.
8.2	Ensure clear title to property before proceeding with acquisition					
	Coordinate with County Surveyor to review property boundaries and deeds to ensure clear title; review cadastral survey when complete	VH	L	As parcels are offered by willing sellers	Ongoing.	Acquired title reports for several properties of interest this quarter.
8.3	Pursue acquisition of priority parcels					
	Conduct appraisal, determine fair market value, make offer, negotiate as needed	H	L-VH	As parcels are offered by willing sellers	Ongoing.	Initiated the acquisition of appraisal reports for several properties of interest along the Virgin River.
8.4	Pursue acquisition of parcels held by local and state entities when available					
	Identify parcels held by County Treasurer or other Departments, other municipalities, or state; discuss planned or future needs for parcels to determine best use or benefit to County; transfer management responsibility to DCP.	H	L	As parcels are available	Ongoing.	No activities this quarter.
9.0	Acquire conservation easements to public and private lands from willing landowners as appropriate					
9.1	Identify priority parcels for conservation easements using Acquisition Selection Tool					
	Evaluate feasibility of conservation easement; use the Acquisition Section Tool to assess the priority of parcels when offered by willing sellers	H	L	As parcels are offered by willing landowners	Not started.	No activities this quarter.
9.2	Develop a conservation easement template					
	Develop an easement template that outlines approved and prohibited actions, access for monitoring, and communication schedule	H	L	Completion of template	Not started.	No activities this quarter.

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9.3	Pursue easements of priority parcels					
	Negotiate terms of easement.	H	L-H	After easement granted	Not started.	No activities this quarter.