

Appendix C
Land Management

TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	GRAZING MANAGEMENT	1
2.1.	Grazing Lease Summaries	6
2.1.1.	Delta Grazing Lease RLI-490	6
2.1.2.	Lone Pine Grazing Lease RLI-456	7
2.1.3.	Islands Grazing Lease RLI-489	8
2.1.4.	Four J Ranch Grazing Lease RLI-491 and RLI-499	9
2.1.5.	Cashbaugh Grazing Lease RLI-411	10
2.1.6.	Cashbaugh Grazing Lease RLM-410	11
2.1.7.	Reata Ranch Grazing Lease RLI-453	13
2.1.8.	Independence Grazing Lease RLI-416, RLI-454, and RLI-455	13
2.1.9.	Colosseum Grazing Lease RLI-407	14
2.1.10.	Lubkin Adjunct Grazing Lease RLI-489	15
2.1.11.	Horseshoe Grazing Lease RLI-480	15
2.1.12.	Pine Creek Pack Outfit Grazing Lease RLI-494 and RLM-466	16
2.1.13.	Georges Creek Parcel Grazing Lease RLI-489	17
2.1.14.	Thibaut Grazing Lease RLI-430	18
2.1.15.	Twin Lakes Grazing Lease RLI-491	19
2.1.16.	Intake Grazing Lease RLI-475	20
2.1.17.	Big Pine Canal Grazing Lease RLI-438	21
2.1.18.	Hogback Creek Grazing Lease RLI-429	22
2.1.19.	ST Ranch Grazing Lease RLI-461	22
2.1.20.	C-T Ranch Grazing Lease RLI-412, RLI-451, RLI- 500, and RLM-441	24
2.1.21.	Round Valley Ranch Grazing Lease RLI-483	25
2.1.22.	Rainbow Pack Outfit Grazing Lease RLI-460	25
2.1.23.	Warm Springs Grazing Lease RLI-497	26
2.1.24.	Reinhackle Ranch Grazing Lease RLI-492	27
2.1.25.	Mount Whitney Parcel Grazing Lease RLI-495	28
2.1.26.	Pine Creek Ranch Grazing Lease RLI-498 & RLM-486	29
2.1.27.	Little Round Valley Grazing Lease RLM-418	29
2.1.28.	Blackrock Grazing Lease RLI-428	31
2.1.29.	McGee Creek Ranch Grazing Lease RLM-469	32
2.1.30.	Chance Ranch Grazing Lease RLM-468	33
2.1.31.	Fish Slough Grazing Lease RLM-488	35
2.1.32.	Healyville Ranch Grazing Lease RLM-496	35
2.1.33.	Benton Crossing Grazing Lease RLM-471	37

1.0 INTRODUCTION

This appendix includes descriptions livestock grazing, recreation, and fire management on City of Los Angeles (City) owned lands.

Grazing Management

Los Angeles Department of Water and Power (LADWP) has developed and implemented Grazing Management Plans for all ranch leases on their property in the Plan Area. The fundamental goal of grazing management on City lands is to impose Best Management Practices (BMPs) that protect and enhance riparian and upland habitats, which in turn help protect and enhance aquatic habitats. These grazing plans are designed to meet regional water quality regulations (through implementation of BMPs) and support LADWP's watershed management goals to improve water quality, improve water-use efficiency, maintain compatibility with water gathering activities, and support LADWP's goal of continuing a cost-effective aqueduct operation.

Fire Management

Fires occur regularly in the Owens Valley. Fires represent a major threat to habitat for many of the species included in this Plan. LADWP has developed a Fire Management Plan that works in concert with the California Department of Forestry (CDF) and other local fire agencies. The intent is to respond rapidly to fires, with priority given to protecting riparian zones. It is expected that the fire plan will do much to reduce the frequency and severity of wild fires, especially in riparian zones.

Recreation Management

LADWP has also developed a Recreation Management Plan for its lands in the Plan Area, the purpose of which is to reduce and/or remove on-going impacts related to recreation and to provide guidance for future recreation management to avoid or minimize new impacts.

2.0 GRAZING MANAGEMENT

The 1997 MOU between LADWP, the County of Inyo, the California Department of Fish and Game, the California State Lands Commission, the Sierra Club, the Owens Valley Committee, and Carla Scheidlinger provides for the continuation of sustainable uses, including recreation, livestock grazing, agriculture, and other activities. The grazing management plans, summarized in this section, were developed with MOU goals in mind. The team that developed the grazing plans consulted with the lessees in the development of these plans.

The grazing management plans identify and describe the Best Management Practices (BMPs) that are implemented in order to reduce the impacts from livestock grazing and maintain a healthy watershed. Rangeland management outlined in each plan is expected to improve habitat conditions, water quality, improve water use efficiency, maintain compatibility with water gathering activities, and support LADWP's goal of continuing cost effective operations and management. Good watershed management will minimize resource conflicts that may threaten LADWP's water supply while benefiting fish, wildlife, and other natural resources. Applying BMPs, with needed land treatments, will maintain already healthy rangelands and improve those that have been degraded.

Vegetation Influences on Riverine-Riparian Habitats

Streams and their bordering riparian habitat are highly variable geomorphic systems controlled

by climate, geology, vegetation, and surrounding land and water uses. Riverine-riparian habitats seldom reach equilibrium or steady state conditions because these habitats must constantly adjust to the ever-changing hydro-geologic factors within their watersheds (Platts 1990). A riverine-riparian system receiving both natural hydro-geologic and cultural (i.e., livestock grazing) influences can change condition or states slowly or very rapidly. Some riverine-riparian changes take place very rapidly (i.e., from floods) and it may take years or centuries for the riverine-riparian habitat to erase these changes (Platts, et. al 1985). The physical qualities of other streams and their riparian systems may change very slowly over time due to constantly applied stress such as ungulate over-grazing. Riparian vegetation can often improve more rapidly than upland xeric systems under properly managed livestock grazing prescriptions. The end point, however, of serious habitat instability and reduced stream health is the same whether it occurs rapidly or slowly.

Vegetation Control

The corridors of riparian vegetation occurring along streams influence light, temperature, and organic input. Vegetation within these corridors provides cover and controls streambank morphology (Larsen et. al. 1986). Vegetation-controlling streambank morphology can, in turn, control channel and water column morphology (Beschta and Platts 1986). Riparian vegetation is a major factor affecting flood plains, fish habitat, and channel characteristics (Platts 1979).

Woody vegetation can protect streambanks by reducing the erosive energy of water and by tempering streambank damage caused by ice flows, debris flows, and ungulate trampling (Chaney et al. 1990). Vegetation buffering may control channel geometry by reducing scour, increasing sediment deposition, and decreasing the rate of concave bank retreat (Hickin 1984). In addition, woody debris which falls into or across the channel can (1) dissipate stream flow energy, (2) maintain channel stability, (3) decrease bedload movement, (4) add organic energy, and (5) increase water quality (Heede, et al. 1985). When streambank vegetation, such as willow, is removed, and plant roots no longer bind the soil, tension cracks can develop and lead to complete streambank failure. Streambanks protected by a 5 cm root-mat can resist soil erosion up to 20,000 times better than bare streambanks (Smith 1976).

Loss or reduction of woody vegetation can detrimentally change a stream's water column by altering nutrient content and increasing suspended sediment and bacterial populations. Often, however, the most significant change resulting from a loss of riparian vegetation is the change in stream water temperatures. Direct solar energy is the principal source of heat to streams. So, while removal or restriction of woody vegetation results in increased summer water temperatures, elimination of over-head canopy has the opposite effect during winter, as heat is allowed to leave the stream more freely.

Ungulate Grazing Influences

Understanding how vegetation loss or changes can affect riverine-riparian habitats allows the application of sound land and water decisions. (Chaney et al. 1990). Riparian vegetation is usually affected much more by grazing than upland vegetation (Platts and Nelson 1985b). Over-grazing can reduce plant vigor and can alter, reduce, or eliminate riparian vegetation (Knoph and Cannon 1982). This, in turn, can (1) change plant species composition, (2) lower water tables, (3) change the timing and amount of energy entering and leaving the stream, (4) decrease canopy cover, and (5) change a stream from a perennial to an ephemeral condition.

Ungulate over-grazing can directly alter streamside woody vegetation by mechanical damage (trampling and rubbing) and browsing on shrubs and trees. Browsing on shrubs can alter the

size, shape, species composition, spacing, and especially the numbers of woody plants per unit area. In the Lower Owens River there are portions of the river bordering riparian areas where woody recruitment is unlikely because of geomorphology, not from livestock grazing (John Hays, LADWP, personal communication). Vegetation species composition can be changed in a matter of only a few years by improper grazing (Hormay 1970). Positive changes can occur, however, quite quickly in riparian zones with proper management. Grazing may also influence community succession (Gifford 1976).

Lease Grazing Management Guides

In October 2004, the USFWS identified Critical Habitat for the Southwestern Willow Flycatcher (SWWF) along 69 miles of the Owens River and adjacent areas starting 0.5 miles east of Long Valley Dam downstream to 4 miles north of Tinemeha Reservoir (Owens Management Unit) (USFWS 2004). As a consequence, LADWP entered into a Memorandum of Understanding (MOU) with the USFWS Ventura, California office in July 2005 to adopt a Conservation Strategy that would protect SWWF on City property and prevent Critical Habitat from being designated on City lands.

In this Conservation Strategy, LADWP proposes to manage livestock grazing, recreation, and fire management activities in the Owens Management Unit in a manner compatible with the conservation of the SWWF. Seven grazing leases exist within the boundaries of the Owens Management Unit.

With regard to grazing management, LADWP was to implement the following five measures pursuant to the Conservation Strategy:

1. Utilization rates in the riparian corridor will not exceed 40 percent.
2. Timing restrictions for when livestock can graze in riparian habitats will be implemented. The specified period of use for riverine riparian pastures will be during the winter months.
3. Livestock will be removed from the riparian areas within the proposed critical habitat area when either the utilization rate, or the period of use criteria has been met, whichever occurs first.
4. Riparian habitat condition in each grazing lease will be monitored annually using LADWP range condition and trend protocols.
5. An adaptive management process will be implemented, and livestock management practices will be revised so the preferred habitat of the SWWF can become established and persist.

LADWP began implementing all five measures identified in the Conservation Strategy relating to livestock grazing in 2007. These principles have also been applied to grazing management plans on City lands outside of the Owens Management Unit.

In 2011, the USFWS's critical habitat designation for the SWWF was overturned. In August 2011, USFWS issued a notice in the Federal Register again designating Critical Habitat for the species, including 79.9 miles of the Owens River from Crowley Lake to just north of Tinemeha Reservoir (Owens Management Unit). In this notice, the Owens Management Unit was also to be considered for exclusion from the designation under Section 4(b)(2) of the Endangered Species Act. At the time this HCP was released, USFWS had not yet issued a decision.

However, the Conservation Strategy that LADWP and USFWS developed in 2005 is still in effect and is used to guide management of City lands in Inyo and Mono Counties.

This chapter describes grazing management strategies for all LADWP grazing leases in the Plan Area (Tables 1 and 2). A summary of each grazing lease follows.

Listed below are LADWP grazing leases that contain significant riverine, wetland, and/or riparian habitat. Changes made by management are displayed in this section.

Table 1. LADWP Grazing Leases that Contain Significant Riverine, Wetland, and/or Riparian Habitat

<u>Lease Name</u>	<u>Lease Number</u>
Four J Ranch	RLI-491
Benton Crossing	RLM-471
Big Pine Canal	RLI-438
Blackrock	RLI-428
C-T Ranch	RLI-412, RLI- 451
Chance Ranch	RLM-468
Cashbaugh – Upper Owens	RLM-410
Cashbaugh – Warm Springs	RLI-411
Colosseum	RLI-407
Delta	RLI-490
Fish Slough	RLM-488
Heallyville – Hot Creek	RLM-496
Georges Creek	RLI-489
Hogback	RLI-429
Horseshoe	RLI-480
Independence	RLI-416, RLI-454 & RLI-455
Intake	RLI-475
Islands	RLI-489
McGee Creek	RLI-469
Little Round Valley	RLM-418
Lone Pine	RLI-456
Lubkin Adjunct	RLI-489
Mt. Whitney Parcel	RLI-495
Pine Creek Pack Outfit	RLI-494 & RLM-466
Pine Creek Ranch	RLI-498 & RLM-486
Rainbow Pack Outfit	RLI-460
Reata Ranch	RLI-453
Reinhackle Ranch	RLI-492
Round Valley Ranch	RLI-483
ST Ranch	RLI-461
Thibaut	RLI-430
Twin Lakes	RLI-491
Warm Springs	RLI-497

Listed below are LADWP grazing leases that do not contain significant riverine, wetland and/or riparian habitat. Changes made by management are not displayed in this section.

Table 2. LADWP Grazing Leases that Do Not Contain Significant Riverine, Wetland, and/or Riparian Habitat

<u>Lease Name</u>	<u>Lease Number</u>
3-V Ranch	RLI-435
4J Cattle Company	RLI-499
Aberdeen	RLI-479
Baker Road	RLI-475
Brockman Ranch	RLI-401
Chalfant Valley	RLM-441
Colosseum (Sawmill)	RLI-479
Eight-Mile	RLI-408
Fort Independence	RLI-406
Fort Independence	RLI-489 & RLM-486
Homeplace	RLI-428
Horse Shoe Bar Ranch	RLI-462
J-M Ranch	RLI-445
J-R Ranch	RLI-436
L-R Bar Ranch	RLI-487
Lone Pine Dairy	RLI-452
Mandich	RLI-424
Olancha Creek	RLI-427
Pine Creek Ranch	RLI-498
Quarter B Creek Ranch	RLI-404 & RLI-413
Rockin DM	RLI-420
Rafter DD	RLI-439 & RLI-426
Riverside	RLI-501
Rocking C Ranch	RLI-493
Smith	RLI-454
Talbot	RLM-441
Three Corner Round	RLI-464
U-Bar Ranch	RLI-402
Wells Meadow Ranch	RLI-465

2.1. Grazing Lease Summaries

2.1.1. Delta Grazing Lease RLI-490

Riverine-Riparian-Wetland Habitat

Riparian-wetland vegetation is present on the historical and recent floodplain of the Owens River Reach that flows through the lease. Riparian trees, shrubs, marshes, and saltgrass meadows are present on this floodplain.

Past Grazing Management

Cattle grazed the lease using three different pastures/fields to control livestock distribution. The Delta Bolin/East Pastures were grazed from mid-November through April. The Lake Field was

grazed from the first part of November through April. The Dearborn Fields were grazed for up to five days in November and another five days in July. During some years, the Bolin and Lake Fields were grazed all summer; other years, cattle grazed these fields only in early summer. The lessee was not required to follow any forage utilization or irrigation standards.

Present and Future Grazing Management

The Delta Field, which contains nearly the entire riparian habitat on the lease, is still being grazed from November 15 until April 30, or until utilization standards (40 percent of riparian habitats) are met. The Lake Field is mainly an irrigated pasture. Therefore, as long as this pasture maintains a pasture condition score of 80 percent or higher, it will be managed at the discretion of the lessee. If the pasture condition score goes below 80 percent, management changes will be initiated that will bring the score up to, or above, 80 percent. Cattle now graze the Bolin and Lake Fields from May 1 through June 20 of each year.

As livestock grazing has no effect on Spring IPT-11, this spring will not need to be protected by a fence. A 13-acre riparian enclosure, which straddles the Owens River, was constructed in the Delta Field to help monitor grazing activities. A 1-mile drift fence was constructed from the Pumpback Station west towards Boulder Creek, to prevent cattle from drifting up from the Delta. A 40 percent utilization standard has been added for all riparian habitats, and depending on the timing of grazing, a 50 to 65 percent utilization standard added for all upland habitats. The Delta Field can be grazed up to a 40 percent riparian habitat standard, while the Bolin Field can be grazed up to a 65 percent upland habitat standard. The Lake Field is irrigated and can be grazed up to 90 percent as long as pasture condition scores remain above 80 percent. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding fields.

Stock water is supplied to the Bolin Field from a ditch that runs from the LA Aqueduct. Utilization is monitored annually—before, during, and after the grazing period for each pasture/field. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

2.1.2. Lone Pine Grazing Lease RLI-456

Riverine-Riparian-Wetland Habitat

The River Field is the only field or pasture on the lease that includes a reach of the Owens River (4.7 miles). While other fields/pastures do contain some riparian habitats, the adjacent areas of the Owens River make up the majority of the significant riparian-wetland habitat on the lease. Five hundred and fifty acres of riparian-wetland meadow are present in the old floodplain of this Owens River reach. No seeps or springs occur on the lease.

Past Grazing Management

On November 1, livestock were released into the Van Norman Pasture and remained there through the end of December. Cattle were then moved to the River Pasture, where they grazed January 1 through March 30. Cattle that previously grazed the River, Dump, and Edwards Pastures were moved to the Johnson Pasture on April 1, where they grazed until April 10. Cattle were then moved back to the Richards and Van Norman Pastures until April 25. These cattle returned to the lease on May 20 and grazed the Edwards Pasture until May 28. At this point, some cattle were removed from the lease. The remaining cattle were then moved back to the River Pasture, where they grazed until removal from the lease on June 12. The lessee was

not required to comply with any forage utilization standards, and pasture condition scores were not taken to monitor the effects of grazing.

Present and Future Grazing Management

The River Pasture now includes an additional 5,176 acres of dry rangeland. A new fence was constructed along the west side of the Owens River in the River Pasture to improve livestock control. The River Pasture is no longer grazed the second time, as it was in the past, from May 28 through June 12. Eliminating this second grazing period provides riparian vegetation with a longer undisturbed growing period. The remainder of the most recent grazing management methods mirror the grazing methods used in the past.

The River Pasture is managed so riparian vegetation condition is protected. A short section of fence was constructed in the River Pasture to prevent cattle from trailing through riparian zones on the west side of the river. Utilization standards of up to, but not more than 40 percent on riparian vegetation were added and are now being implemented. A 65 percent utilization standard is now in effect on all upland vegetation. A 10-acre riparian enclosure was constructed in the River Pasture to serve as a control for monitoring long-term livestock effects. Allowable grazing duration periods (must still meet utilization standards) for each pasture/field have been established and are being abided by the lessee. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas.

Irrigated fields or pastures scoring 80 percent or above are considered to be in good to excellent condition. Grazing management in these pastures will be at the discretion of the lessee. If any pasture scores less than 80 percent, changes will be made in grazing management to bring the pasture score to 80 percent or greater. Utilization is monitored annually—before, during, and after the grazing period for each pasture/field. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

2.1.3. Islands Grazing Lease RLI-489

Riverine-Riparian-Wetland Habitat

Riparian-wetland vegetation is present on an 11-mile section of the historical and recent floodplain of the Owens River reach that flows through the lease. Riparian trees, shrubs, marshes, and saltgrass meadows are prominent on this Owens River floodplain. Riparian-wetland habitat also surrounds Reinhackle and Alabama Gates Springs (DWP-9).

Past Grazing Management

The lease was managed using nine separate pastures. The Bull Field was grazed from August 15 to April 1. The Reinhackle-Carasco Fields were grazed from May 1 through October 31. Cattle were moved from pasture to pasture depending on which provided the best forage conditions. The River Field contains most of the riparian habitat within the lease. Cattle grazed this field from October 15 through April 30. The East and West Depot Fields were grazed from November 15 to April 30. Neither forage utilization standards, nor irrigated pasture condition scores were a requirement for the lessee to meet.

Present and Future Grazing Management

The present grazing management practices closely resemble those of the past, with the exception of some added requirements. Cattle now graze the River Field during fall and winter

periods. The Depot Riparian Field and Carasco Pastures are only being grazed February through April. Livestock grazing is presently having no effect on springs within the lease.

Grazing utilization rates were added and are monitored annually in riparian and upland habitats. A 40 percent utilization rate has been set for all riparian habitats, and a 65 percent utilization rate set for all upland habitats. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas.

Grazing duration periods for each pasture/field have been established and are being abided by the lessee. All irrigated fields or pastures with a condition rating of 80 percent or better are grazed at the discretion of the lessee. For any pasture that scores less than 80 percent, management changes will be made to improve the pasture condition score to 80 percent or greater.

Utilization is monitored annually—before, during, and after the grazing period for each pasture/field. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

2.1.4. Four J Ranch Grazing Lease RLI-491 and RLI-499

Riverine-Riparian-Wetland Habitat

Riparian-wetlands border the reach of the Owens River from Tinemaha Reservoir to Bartel Lane. The Baker, Big Pine, Birch, Tinemaha, and Red Mountain Creek reaches that flow through the lease support riparian-wetland habitat. Additionally, the six springs that occur on the lease are surrounded by riparian-wetland vegetation.

Past Grazing Management

Cattle were usually stocked on the lease in late October. Part of this herd was shipped to the Canal Pasture, where they grazed from June 1 to June 15. In the fall, pregnant heifers were placed in the Ranch Pasture and South Field, where they grazed until calving. Cattle were moved between lease pastures using the best pasture rotation strategy.

Cattle were also placed in the Cottonwood Field from fall to June 15. Some years, cattle were kept in this field to graze through summer. During fall, other cows were placed in the Hessian and Triangle Pastures, where they grazed until April 15. These cows were then transferred to the Lower Canal, Middle Canal, and Lake Fields, where they grazed until the middle of June. The remaining cattle were moved to the Elk Field, where they grazed until November 1, or in some years, as late as December 1. Cattle were then moved to graze the hay fields until January 1. On January 1, these cattle were moved to the North and South River Fields. All cattle were removed from the North River Field by April 1.

On years wet enough to support good spring vegetation growth, cattle remained on the South River Field until late May. During the first part of December, bulls were separated from cows and placed in the Lake Field. Some cattle were left on the lease during summer to graze in the Tinemaha, Fish Springs, Lake, and Orchard Pastures. No utilization standards were required for the lessee to meet; nor were any pasture condition scores taken.

Present and Future Grazing Management

The grazing methods in use today are nearly the same as the methods used in the past. Utilization is now monitored annually in both riparian and upland habitats. A 40 percent utilization rate has been set for all riparian habitats, and a 65 percent utilization rate set for all upland habitats. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas.

Grazing duration periods for each pasture/field have been established and are being abided by the lessee. All irrigated fields or pastures whose condition rating scores at an 80 percent or higher are grazed at the discretion of the lessee. For pastures that score less than 80 percent, changes will be made in grazing management to increase the pasture condition score to 80 percent or greater.

Management changes were made in the plan to improve conditions. Changes were also made to better manage grazing in and around springs on the lease. Upon initiation of this plan, the Locust Grove Spring (DWP-36) was found to be in poor condition. The surrounding fence has been upgraded or replaced as needed in order to eliminate all future livestock grazing. All springs have been evaluated on the lease, and those impacted by livestock grazing have been fenced to eliminate future livestock grazing.

Utilization is monitored annually—before, during, and after the grazing period for each pasture/field. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

2.1.5. Cashbaugh Grazing Lease RLI-411

Riverine-Riparian-Wetland Habitat

Riparian-wetland areas border the Owens River reach flowing through the lease; they also occur along Bishop Creek in areas known as the Williams Waste and Saunders Slough. Warm Springs is surrounded by wet herbaceous vegetation with small stands of riparian trees, and encompasses 8.2 acres of riparian-wetland habitat. Spring DWP-012 contains a lesser amount of riparian-wetland habitat.

Past Grazing Management

Bulls grazed the Bull Field from November 1 to April 1 and then were turned back with the cows. Replacement heifers grazed the Lower, Middle, Upper, and Old Bull Fields from October 10 through April 1. On occasion, cattle were moved to the Longyear Field after 'green-up'. In very good forage years, cattle were allowed to graze the Slough Field starting November 1, however, during dry years, cattle were moved instead to the Lower Pasture and did not use the Slough Field until December 1.

On "dry or drought years," all cattle were moved to the Lower Pasture by May 1. On November 1, cattle were placed in the Warm Springs East of River Field and remained there until they were shipped off the lease around June 1. Although the Poleta Field does get some cattle drift each year, no cows were purposely moved to the field in order to keep animal grazing numbers low. The Laws River and Upper Symons Fields were usually stocked by cattle by November 1, and were grazed from May 1 to June 1.

The Lake Pasture was grazed November 1 through December 15. Cattle were then moved to the Bishop Creek Field, where they grazed until May 1. Some cattle grazed the Lake Pasture until they were removed from the lease from May 15 to June 1. Additional grazing of the Lake Pasture occurred from February 1 to April 15. The Winter and Williams pastures were grazed while calves were being paired. The herd was then placed in the Lake Field. Heifers and their calves were returned to the Williams Pasture after spring's new vegetation growth was utilized. Work horses and sick cattle were kept in the Big Horse, Finger, Little Horse, and Dairy Pastures. Utilization standards were not required for the lessee to meet; nor were any pasture condition scores taken.

Present and Future Grazing Management

Because the lease is in good condition, present and future grazing methods will be very similar to the methods used in the past. The Conservation Strategy for the Southwestern Willow Flycatcher requires that no livestock grazing occur in riparian areas along the Owens River Corridor from May 1 to October 1. Changes were made in the timing of grazing to meet these closed periods. A 3.5 mile fence was constructed along Poleta Road so the lessee can better comply with the conservation strategy.

Plant utilization rates have been set for the lease and are monitored annually in both riparian and upland habitats. A 40 percent utilization rate has been set for all riparian habitats, and a 65 percent utilization rate set for all upland habitats. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas.

All irrigated fields or pastures that score a condition rating of 80 percent or greater are grazed at the discretion of the lessee. For any pasture whose condition rating is less than 80 percent, changes will be made in grazing management to improve the condition score to 80 percent or greater.

Spring DWP-23 is surrounded by 8.2 acres of riparian-wetland habitat and has not been impacted by grazing; therefore, this spring has not been fenced. Alternatively, and in response to past grazing impacts on Spring DWP-012, the spring and its surrounding area have been fenced to eliminate all future cattle grazing. The fences surrounding Warm Springs (DWP-28) were found to be in poor condition. Uhlmeier Spring (DWP-012) was impacted by grazing, and this spring area has now been fenced to eliminate all future grazing.

An old fence was reconditioned to better control livestock distribution. Three additional livestock watering sites are now being installed for better animal distribution. The McCloud Field will be rested from livestock grazing until a permanent supply of stockwater is made available in this field.

Utilization is monitored annually—before, during, and after the grazing period for each pasture/field. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

2.1.6. Cashbaugh Grazing Lease RLM-410

Riverine-Riparian-Wetland Habitat

The Upper Owens River and Lower Hot Creek flow through the lease, resulting in large amounts of bordering riparian habitat with numerous species of riparian plants. Wetlands on the lease

contain abundant wetland plant species. All know seeps and springs were evaluated, with most of them occurring along the Upper Owens River or in the irrigated pastures. Seeps and springs were found to be in good condition and will need no special management. However, these springs will need to be grazed under riparian prescriptions or upland prescriptions. The springs occurring in irrigated pastures will be protected under the pasture condition scoring process.

Past Grazing Management

The lease (1,872 acres) was separated into 10 pastures/fields, and one operating structure to support a commercial cow-calf operation with yearlings. The lease was grazed 5 to 6 months out of the year, primarily in the summer. Of the lease's total acreage, 1,110 acres were irrigated. These irrigated pastures/fields were grazed using a rotational grazing strategy that was based on the condition of forage available in each pasture/field.

Two riparian pastures were created in the early 1990's to protect reaches of the Upper Owens River and to improve riparian habitat and fisheries. These riparian pastures were protected from grazing to allow the river and its surrounding habitat to achieve better conditions.

Present and Future Grazing Management

The new grazing plan only contains small changes from past grazing practices. Modifications to past grazing methods were made to the Upper and Lower Riparian Pastures. Grazing rest periods on selected riparian pastures which were designated to rehabilitate the Owens River reaches within the lease will end in 2015. Since the late 1990's when these pastures were constructed to improve riparian habitat and fisheries, evaluations have documented large habitat improvements. Because of the large improvement in riverine-riparian conditions, these riparian pastures will again be grazed, but under new grazing prescriptions. Using the best pasture rotation strategy, each riparian pasture will be grazed annually during the June to October grazing period. . Cattle will be removed from these pastures either when the average use of herbaceous forage reaches 30 percent, or the grazing period comes to an end.

Utilization standards on pastures/fields that exclusively contain upland habitats with cool-season perennial bunch-grasses will be 40 percent at the end of the growing season. Utilization on saline/sodic meadows which are not irrigated will be 65 percent on all fields/pastures that do not receive 60 days of continuous rest during the plant growing season. On those that do receive the allotted period of rest, the utilization will be 50 percent. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas.

The irrigated pastures are now monitored using the National Resource Conservation Service (NRCS) Guide to Pasture Condition Scoring. All irrigated fields or pastures scoring an 80 percent condition rating or more are grazed at the option of the lessee. For any pasture that scores less than 80 percent, changes will be made in grazing management until the pasture condition score is 80 percent or greater.

Greenline analysis, vegetation time trends, and fish habitat monitoring has been conducted since 1994 and will continue. Utilization is monitored annually for each pasture/field. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

2.1.7. Reata Ranch Grazing Lease RLI-453

Riverine-Riparian-Wetland Habitat

Riparian areas border the North Fork Bishop Creek flowing through the lease. Fish Slough Creek only supports a narrow band of bordering riparian vegetation through the lease in a detached 86 acre field. No seeps or springs are known to occur on the lease.

Past Grazing Management

Five irrigated pastures made up the 55-acre Reata Parcel. These pastures were grazed from October to May using the best pasture rotation strategy. The parcel containing Fish Slough Creek was not grazed by livestock. The lessee was not obligated to comply with any forage utilization criteria or pasture condition scores.

Present and Future Grazing Management

The parcel containing the Fish Slough Creek reach will not be grazed in the future. All irrigated pastures scored a condition rating of 80 percent or greater. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

2.1.8. Independence Grazing Lease RLI-416, RLI-454, and RLI-455

Riverine-Riparian-Wetland Habitat

Shepherds and Independence Creeks flow into the lease, but, neither supports riparian habitat of significant value. Very sparse riparian vegetation is associated with Shepherds Creek, which flows into the Shepherds Creek Parcel. Independence Creek provides small areas of bordering riparian habitat. No seeps or springs occur on the lease.

Past Grazing Management

Alfalfa fields in the Shepherds Creek Parcel were grazed annually by livestock after the first freeze in the fall. Cattle usually grazed the Parcel from November 1 through December 31. Grazing management was mainly the option of the lessee.

Present and Future Grazing Management

The Springfields Parcel, along with all other fields and pastures in the lease, contains very little riverine-riparian habitat of any value. Present and future grazing management, therefore, will be much the same as past grazing management. The only section of Shepherds Creek in the Shepherds Creek Parcel that is presently being grazed is the water gap; this small watering area will not be fenced. In the Springfield Parcel, a new fence encloses Shepherds Creek so that, except for the water gap, livestock cannot graze the stream corridor.

Utilization rates have been added and are monitored annually in both riparian and upland habitats. A 40 percent utilization rate has been set for all riparian habitats, and a 65 percent utilization rate has been set for all upland habitats. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas.

All irrigated fields or pastures scoring an 80 percent condition rating or greater are grazed at the discretion of the lessee. Alternatively, any pasture that scores less than 80 percent will undergo changes in grazing management until a score of 80 percent or greater is reached.

Utilization is monitored annually—before, during, and after the grazing period for each pasture/field. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

2.1.9. Colosseum Grazing Lease RLI-407

Riverine-Riparian-Wetland Habitat

The Sawmill Creek Parcel has less than 0.1 acre of riparian-wetland habitat. The Black Canyon Creek reach provides no riparian vegetation. Riparian-wetland vegetation in the Mt. Whitney Portal Parcel is associated with springs and areas bordering Lone Pine Creek. Two springs occur on the lease and both are surrounded with riparian vegetation.

Past Grazing Management

Cattle usually grazed the lease over most of the year. The Sawmill Pasture was grazed from August 15 through August 30. The West Pasture was grazed from February 1 to June 1. The East Pasture was grazed from August 15 through February 1. On years that the Mt. Whitney Parcel was grazed, the parcel was grazed from January 1 through March 1. The lessee was not required to comply with any utilization criteria or pasture condition scoring.

Present and Future Grazing Management

Additional grazing land was added to the lease to increase the forage base. A single stockwater site was constructed in the North East Field after a cross fence was constructed by creating the Southwest Field. The West Field is managed in conjunction with Federal grazing allotments held by the lessee. This field is managed according to Federal grazing standards. The Mt. Whitney Parcel can be grazed from October 1 to December 1, and the Movie Pasture from November 1 through March 1. Although all springs and seeps on the lease are in good condition, two of the springs in the Movie Pasture will be fenced to exclude livestock grazing. The riparian-wetland habitat bordering Lone Pine Creek was not impacted by cattle grazing, so the stream corridor was not fenced.

Plant utilization rates have been added and are monitored annually in the Movie, Northeast, and Southeast Fields. The remainder of this lease will be grazed under BLM and USFS guidelines. A 40 percent utilization rate has been set for all riparian habitats, and a 50 to 65 percent utilization rate set for all upland habitats. There are no pastures or fields within the lease that are irrigated.

Utilization is monitored annually—before, during, and after the grazing period for each pasture/field. Utilization standards do not apply to livestock gather areas, shipping areas, or holding areas. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

2.1.10. Lubkin Adjunct Grazing Lease RLI-489

Riverine-Riparian-Wetland Habitat

Diaz Creek is ephemeral and flows through the Diaz Creek Unit. Lubkin Creek is perennial and flows through the Lubkin Unit. Fourteen springs and seeps occur within the lease and have riparian vegetation surrounding them. Riparian-wetland vegetation borders Lubkin Creek; while Diaz Creek has sparse bordering riparian vegetation.

Past Grazing Management

In the past, although grazing was not allowed in the Diaz Creek and North Indian fields, some trespass cattle grazing did occur. Cattle grazed the South Indian Field from April 1 to April 30, and the Lubkin Unit from October 15 through March 1. The lessee was not required to comply with any forage utilization criteria or pasture condition scoring.

Present and Future Grazing Management

In order to protect the spring and surrounding riparian vegetation, the North Indian Unit will no longer be grazed by livestock. Springs in the South Indian and Lubkin Units were not negatively impacted by livestock and therefore, were not fenced. The Diaz Creek unit will only be grazed while livestock are grazing adjacent BLM lands. The North Indian Unit boundary fence was reconditioned to eliminate cattle trespass. The South Indian Field will continue to be grazed by a few drifting cattle. The Lubkin Unit is grazed from October 15 through March 1 and again in August and September.

Two springs in the Lubkin Unit were fenced to exclude livestock grazing. If more than 40 percent of the herbaceous riparian-wetland habitat is utilized in the future around the other springs or seeps, they will also be fenced to exclude livestock grazing. Utilization rates have been added and are monitored annually in both riparian and upland habitats. Utilization standards do not apply to livestock grazing areas, shipping areas, or holding areas. A 40 percent utilization rate has been set for all riparian habitats, and a 50 to 65 percent utilization rate set for all upland habitats. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

2.1.11. Horseshoe Grazing Lease RLI-480

Riverine-Riparian-Wetland Habitat

This lease contains the Lake Parcel near Owens Lake, and the high-elevation Cottonwood Parcel in the Sierras. Major springs emerge in the Lake Parcel, but no springs occur in the Cottonwood Parcel. Springs in the Lake Parcel have abundant riparian vegetation surrounding them. Charcoal Kiln Pond in the Lake Parcel contains five acres of standing water. All streams flowing through the Cottonwood Parcel, including the Horseshoe and Round Valley creeks, are bordered by riparian vegetation. In addition, most meadow areas in this parcel contain riparian-wetland habitats.

Past Grazing Management

Historically, high numbers of livestock, combined with long periods of uncontrolled grazing, caused a decline in riparian condition and plant function in the Cottonwood Parcel. During this time the Cottonwood Parcel was grazed under adjacent USDA Forest Service grazing prescriptions. Cattle usually started grazing the Lake Parcel July 1, grazing the parcel for only a few days until branding was over. Cattle returned to graze this parcel October 1 through December 25. Trespass cattle added to the grazing pressure because of poor perimeter fence conditions. A 30-acre fenced enclosure around Charcoal Kiln Spring protected this area from overuse by livestock. A portion of the west side of the Cottonwood Parcel was grazed under BLM prescriptions. The lease contained 78 acres of irrigated land.

Present and Future Grazing Management

Cottonwood Parcel

Present grazing methods are quite similar to past methods. The Cottonwood Parcel is still grazed under adjacent Forest Service standards and guidelines. Under their guidelines, the allowable disturbance to streambanks in the parcel is 20 percent annually which is quite high. The lessee is responsible for complying with the Inyo National Forest Land and Resource Management Grazing Plan. The US Forest Service's Annual Operating Instructions determine animal numbers, allowed timing of grazing, "on-off" dates, grazing duration, and utilization standards.

Livestock grazing the Cottonwood Parcel are allowed to use up to 35 percent of the herbaceous riparian vegetation in July and return for an additional 25 percent in September. Grazing has to abide by USFS stubble height utilization rates, and meet range readiness guidelines prior to cattle coming on the lease.

Lake Parcel

The Lake Parcel is grazed under LADWP standards and guidelines. Utilization rates are monitored annually in both riparian and upland habitats. A 40 percent utilization rate has been set for all riparian habitats, and a 50 to 65 percent utilization rate set for all upland habitats. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas.

All irrigated fields or pastures scoring an 80 percent condition rating or better are grazed at the option of the lessee. Any pasture scoring less than 80 percent will have management changes made until the pasture condition score is 80 percent or greater. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

2.1.12. Pine Creek Pack Outfit Grazing Lease RLI-494 and RLM-466

Riverine-Riparian-Wetland Habitat

The only significant riparian habitat occurring within the lease is that which borders Rock Creek in the North Pasture, and Pine Creek in the South Pasture. No seeps or springs are known to occur on the lease.

Past Grazing Management

Pack animals (horses and mules) were usually removed from the lease from June 15 through July 1. Pack stock were moved to the Sierras for the recreation season. On heavy snow years in the Sierras, pack animals were kept on the lease as late as August 1. Livestock usually

returned to the lease after Labor Day and grazed irrigated pastures in the Hilton Creek area. The lessee had the option to determine when to remove livestock from the pastures as long as each pasture received 60 continuous days of rest during the plant growing period.

On or around November 1, pack animals were moved from the Hilton Pastures to the Georges Use Permit area, where they grazed during the month of November. In the first week of December, the stock were removed from the Round Valley and Georges areas and placed in the Brockman Pasture and the Wye Field. Livestock were removed from these two pasture/fields when plant stubble height was grazed down to two inches. The Wheeler and Long Valley Fields were not grazed.

Present and Future Grazing Management

Present grazing methods are very similar to those methods used in the past. An exception is that utilization rates and pasture condition scoring requirements were added. An additional exception is that the Brockman and Wye Pastures can be grazed to a two-inch stubble height each year, but stock will not be allowed to return to these fields until fall. Utilization is monitored annually in both riparian and upland habitats. A 40 percent utilization rate has been set for all riparian habitats, and a 65 percent utilization rate set for all upland habitats. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas.

All irrigated fields or pastures scoring an 80 percent condition rating or better are grazed at the option of the lessee. For any pasture that scores less than 80 percent, changes will be made in grazing management until the pasture condition score is 80 percent or greater. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

2.1.13. Georges Creek Parcel Grazing Lease RLI-489

Riverine-Riparian-Wetland Habitat

Riparian vegetation borders Bairs Creek in the North Field, and Georges Creek in the Georges and South pastures. Riparian trees and shrubs bordering Bairs Creek are prevalent along a narrow corridor in the lower-two-thirds of the North Field. Georges Creek is supplemented with LADWP well water when stream flow drops below 0.5 to 1.0 cfs. Georges Creek Pastures #1 and #2 are irrigated. The willow canopy bordering Georges Creek is dominated by older-age willows. Streambanks and willow cover have taken decades of heavy impacts from livestock grazing. No springs or seeps occur on the lease.

Past Grazing Management

Cattle were allowed to graze Georges Pasture #1 at any time of the year except from February 15 through May 1. During this period, the adjacent BLM allotment often provided the necessary "green-up" for the cattle. However, on the years that spring "green-up" did not occur on BLM lands, cattle remained on the lease. The Georges Pasture was also grazed year around, except during the period when cattle were moved to BLM lands. The North Field was infrequently grazed, and the South Field was grazed in conjunction with surrounding BLM lands, but only on years in which forage conditions were favorable. The lessee was not required to comply with any utilization standards or pasture condition scoring goals.

Present and Future Grazing Management

The Georges Lease Pastures are now and will be grazed the same in the future as they were in the past. A new corridor fence, however, now protects Georges Creek and its surrounding riparian habitat. In addition, a 50-foot fenced cattle crossing was constructed in lower Georges Creek. The North and South Fields are grazed under adjacent BLM grazing prescriptions. These prescriptions require that no more than 60 percent forage utilization occurs in the uplands and only 20 percent in riparian habitats. Bairs Creek was not fenced. If, however, over time, bordering riparian habitat along the stream does not meet LADWP's standards, grazing guidelines will become more restrictive.

A section of Georges Creek that flows through the South Field was not fenced off from livestock use. Non-use in some years, combined with only a short grazing period in other years, adequately protects this reach. A permanent riparian enclosure (37 acres) now encloses Georges Creek within the Georges and South pastures to protect riparian habitat.

Utilization rates have been set and are monitored annually in both riparian and upland habitats. A 40 percent utilization rate has been set for all riparian habitats, and a 50 to 65 percent utilization rate set for all upland habitats. Utilization is monitored annually, before, during, and after the grazing period for each pasture/field. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004). Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas.

All irrigated fields or pastures scoring an 80 percent condition rating or better are grazed at the option of the lessee. For any pasture that scores less than 80 percent, changes will be made in grazing management until the pasture condition score is 80 percent or greater.

2.1.14. Thibaut Grazing Lease RLI-430

Riverine-Riparian-Wetland Habitat

A two-mile reach of the Owens River flows through the lease. Tamarisk is presently the dominant plant along the reach, but willows are also present. Riparian-wetland habitat is present on the historic floodplain of the Owens River. Saltgrass, scattered tamarisk, and a few willows are dominant where the floodplain is moist. A spring (IND-56) is located near the center of the lease and is surrounded by riparian-wetland vegetation. The Blackrock Waterfowl Management Area contains large areas of excellent riparian-wetland habitat.

Past Grazing Management

The lease was managed as one large pasture. Horses and mules were stocked in the lease after the summer recreation season closed in the Sierras (mid-September). They then grazed the lease until spring. The following June, pack stock were again returned to the Sierras. Grazing on the lease usually started between September 15 and October 1, and ended the first part of June. Early spring snows in the Sierras or late snow melt in the spring would cause stock to be held longer on the lease. Cattle grazed the previously almost dry Owens River channel during the entire grazing period. The lessee was not required to comply with any utilization criteria or pasture condition scoring.

Present and Future Grazing Management

To develop healthy riparian vegetation in the re-watered Owens River reach, the entire River was fenced into a large riparian exclosure to exclude all livestock grazing. After ten years from the date of grazing plan implementation (2014), this large fenced riparian exclosure will be assessed to determine if grazing should be allowed again. Two new pastures in the grazed areas were constructed to better control livestock distribution. The Rare Plant Management Area is now constructed and can be grazed from October through March 1.

Utilization rates have been set and are monitored annually in both riparian and upland habitats. A 40 percent utilization rate has been set for all riparian habitats, and a 65 percent utilization rate set for all upland habitats. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas. About 80 acres are irrigated in the Thibaut Field. This acreage will be evaluated using the pasture condition scoring protocol. Utilization is monitored annually, before, during, and after the grazing period for each pasture/field. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

The lease contains part of the Blackrock Waterfowl Management Area. As part of this area, a Thibaut Wetland Management Unit was established in the western portion of the Thibaut Pasture. This fenced unit will be grazed during "wet cycle" periods between October 1 and March 1. During the dry cycle the area will be grazed under the 65 percent utilization criteria and during the wet cycle at 40 percent. The pasture will be rested from grazing every other year during the wet cycle. There were no special management changes made for the single spring site, as it was not being impacted by livestock grazing. A new water source for stock was established near the center of the lease for better stock distribution. An additional 12 miles of fence was constructed to better control livestock distribution and improve riparian-wetland habitat.

2.1.15. Twin Lakes Grazing Lease RLI-491

Riverine-Riparian-Wetland Habitat

Upper and Lower Twin Lakes are located within the south central portion of the lease. These lakes are surrounded by abundant riparian-wetland vegetation. Riparian-wetland vegetation also borders the Owens River flowing through the lease. Wet meadows are present on low floodplains. Herbaceous wetlands are associated with Drew Slough and also with spring BLK-133, which occurs along the Owens River fault just north of Upper Twin Lake. Open water, tule marsh, riparian shrub, and wet meadow comprise about 96 acres that surround the spring.

Past Grazing Management

The lease was managed for grazing as one large pasture. Cattle usually entered the lease between October 1 and November 1. Additional cattle were added to the lease on January 1. One portion of the herd typically grazed the lease from October 20 through June 30. Another batch of cattle grazed the lease from June 1 to May 15. The lessee was not required to comply with any utilization criteria or pasture condition scoring.

Present and Future Grazing Management

Spring BLK-133 showed no adverse effects from livestock grazing and was not fenced. Cattle graze the lease starting in November or early December and cattle stay until May. The new Blackrock Riparian Pasture protects 6.1 miles of the Owens River.

Utilization rates have been added and are monitored annually in both riparian and upland habitats. A 40 percent utilization rate has been set for all riparian habitats, and a 50 to 65 percent utilization rate for all upland habitats. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas. Utilization is monitored annually—before, during, and after the grazing period for each pasture/field. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

A new fence (4.7 miles) controls cattle movements and provides more protection to riverine-riparian resources. The Drew Slough Unit of the Blackrock Waterfowl Habitat Management Area is within the lease. This area will be grazed in a manner that is compatible with the waterfowl habitat area goals. Utilization rates, new additional pastures, and the construction of new water sites for stock all serve to protect wetland areas.

2.1.16. Intake Grazing Lease RLI-475

Riverine-Riparian-Wetland Habitat

Riparian-wetland vegetation borders the Owens River flowing through the lease. A seep paralleling the Owens Valley fault creates two acres of marginal wetland habitat consisting of alkali meadow, playa, and upland shrub vegetation. No springs and only one seep occurs on the lease.

Past Grazing Management

Horses and mules were stocked on the lease around October 1 of each year. The order in which pastures were stocked was determined using the best pasture rotation method, the same method used on the adjacent Aberdeen Grazing Lease. If livestock were released first into the Pipeline Pasture on the Aberdeen Grazing lease, then livestock were also released first into the Big Meadow Pasture. If, however, livestock were not released into the Pipeline Pasture first, then livestock were first released into the Intake Pasture on the Intake Lease. Livestock were typically moved from the Intake Pasture to the Big Meadow Pasture between January 1 and January 15. The lessee was not required to comply with any utilization criteria or pasture condition scoring.

Present and Future Grazing Management

The new grazing strategy now being applied closely follows the past grazing strategy. A formal arrangement was made between the two adjacent lessees (Intake and Aberdeen Leases) to better coordinate the movement of cattle between the two grazing leases.

Large areas of the Big Meadow Pasture are now covered by spoil piles from dredging the Owens River near the Intake water control structure. No fence was constructed around the fault seep because this seep is not being impacted by livestock grazing. Two miles of new fence were constructed to better control animal distribution.

Utilization rates have been added and are monitored annually in both riparian and upland habitats. A 40 percent utilization rate has been set for all riparian habitats, and a 50 to 65

percent utilization rate set for all upland habitats. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas. Utilization is monitored annually—before, during, and after the grazing period for each pasture/field. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

2.1.17. Big Pine Canal Grazing Lease RLI-438

Riverine-Riparian-Wetland Habitat

Riparian-wetland vegetation borders the Owens River, Lyman Slough, Partridge Slough, and spring DWP-23. Seventy-one acres of marsh vegetation surrounds Lyman Slough, while eight acres of mesic meadow, riparian shrub, wet meadow, and marsh vegetation are associated with spring DWP-23. Riparian-wetland vegetation bordering the Owens River reach consists primarily of alkali meadows and riparian shrubs. In the Coyote Parcels, 60 acres of riparian-wetland areas are associated with numerous springs, as well as Baker Creek, East Fork Coyote Creek and Crow Creek.

Past Grazing Management

The lessee developed and implemented, over a period of years, a very successful grazing plan. Implementation of this plan improved pasture and rangeland health throughout the lease. The North 40 and South 40 fields were grazed from December 1 through February. The herd was then moved to the Horse and Heifer fields, where they grazed until April 1. This herd was then moved to the South Big Meadow Field.

The main herd on this lease used the Horse Pasture from August 15 to September 15. The herd then left the Heifer Field on April 1 to graze the Big Meadow Field for one to two days. Then the herd was moved to the 4C Field for branding and remained there until May 31. Part of the herd then went to the Canal Field. The remainder of the herd was moved to the Heifer, North Big Meadow, and South Big Meadow fields to graze June 1 through August. “Drys” were sent to the Canal Field and remained there until June. The herd returned to the South Big Meadow Field for the month of September. In October the herd was moved to the 4C and Canal Fields. Bulls grazed the Bull Fields from October 1 through March 31. Cows with calves also grazed the Bull Fields from May 15 to June 15. Cattle left the Bull Fields about June 15 to graze the East Side Fields. The lessee was not required to comply with any utilization criteria or pasture condition scoring.

Present and Future Grazing Management

With the exception of a few minor modifications, the grazing plan now being implemented is very similar to the lessee’s previously developed grazing plan. The Conservation Strategy MOU for the Southwestern Willow Flycatcher requires that no livestock grazing occur in riparian areas along the Owens River corridor from May 1 to October 1. Changes were made in grazing timing to meet this requirement. Seeps and springs will continue to be protected under the grazing strategy implemented.

Utilization rates have been added and are monitored annually in both riparian and upland habitats. A 40 percent utilization rate has been set for all riparian habitats, and a 65 percent utilization rate set for all upland habitats. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas. Utilization is monitored annually—before, during, and after the grazing period for each pasture/field. The results of utilization and trend monitoring

coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

All irrigated fields or pastures scoring an 80 percent condition rating or better are grazed at the discretion of the lessee. For any pasture that scores less than 80 percent, changes will be made in grazing management until the pasture condition score is 80 percent or greater.

2.1.18.Hogback Creek Grazing Lease RLI-429

Riverine-Riparian-Wetland Habitat

The lease is dominated by willow groves with a few scattered cottonwood trees. Riparian-wetland habitat borders Hogback Creek and the drainages of spring DWP-6. The largest contiguous riparian habitat area is 40 acres, while the next largest is 20 acres. In 1987, a fire swept through the lease and burned most of the riparian trees and shrubs. Through re-sprouting, tree and shrub habitat has shown excellent improvement. The complex of spring DWP-6 drainages supports 111 acres of riparian shrub vegetation, and 50 acres of mesic saltgrass meadow. In addition, scattered trees and small wet meadows add diversity.

Past Grazing Management

Horses and mules grazed the lease as one large field from January 1 to April 30. The lessee was not required to comply with any utilization criteria or pasture condition scoring.

Present and Future Grazing Management

To better protect Yellow Billed Cuckoo habitat, horses and mules now graze the lease from December 1 to March 31. Stock numbers were reduced to better control utilization and protect seeps and springs.

A 40 percent utilization rate has been set for all riparian habitats, and a 50 to 65 percent utilization rate set for all upland habitats. Fences have been upgraded to keep outside livestock from entering the lease during the summer when the lease is not being grazed. This permits Yellow-billed cuckoo to reside amicably, if they use the area. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas. Utilization is monitored annually—before, during, and after the grazing period for each pasture/field. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

2.1.19.ST Ranch Grazing Lease RLI-461

Riverine-Riparian-Wetland Habitat

Riparian habitat borders the Owens River flowing through the lease, as well as North Fork Bishop, McGee and Horton creeks. Wetlands occur at Calvert Slough, Charlie's Butte, Horton Slough, and in the Upper and Lower McCumber Fields. No seeps or springs occur on the lease.

Past Grazing Management

Livestock were rotated between pastures in the Aberdeen Parcel using the best pasture rotation strategy. Cattle entered the parcel on November 15 and were removed from the parcel at the end of May. Cattle were released into the Round Valley River Parcel May 31 to June 7, and

removed November 15 to November 30. These cattle were then rotated between the other pastures using the best pasture rotation strategy. The Stewart and Wonocott places also received some grazing use.

The Calvert, Charlies Butte and East River Fields in the Aberdeen Parcel were grazed from November 1 through May 31. The Red Hill Field was only grazed on years with considerable vegetation growth, and on those years, only from April 1 to May 31.

The Round Valley Parcel (Castaway, Northern Horton Slough, Southern Horton Slough, Upper McCumber, and Lower McCumber Fields) was grazed from November 1 to May 31. The Mare Field was grazed, along with other pastures, using the best pasture rotation strategy. Remaining pastures were grazed between October 1 and October 31 as needed, and again from June 1 to September 31. The Highlands Field was grazed using the best pasture rotation strategy from October 1 through October 31 and again from June 1 through September 31. The lessee was not required to comply with any utilization criteria or pasture condition scoring.

Present and Future Grazing Management

Due to numerous grazing related problems occurring within the lease, major changes in grazing management were made. Exterior and interior fences were in such bad condition that almost all fences needed to be rebuilt. None of the irrigated pastures met the minimum 80 percent scoring and consequently all received changes in land or grazing management. All irrigated fields were put under a Remedial Grazing Prescription (RGP) in order to improve range condition. To further improve conditions, livestock numbers were reduced.

Utilization rates have been added and are monitored annually in riparian and upland habitats. A 40 percent utilization rate has been set for all riparian habitats, and a 50 to 65 percent utilization rate set for all upland habitats. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

Aberdeen Area

The East River and Red Hill fields are now being grazed under adjacent BLM standards and guides. Cattle can graze the East River Field all winter. A new fence was constructed in the Charlies Butte/West River and Calvert Slough fields to better control winter grazing (October through April). To enhance riparian areas along the Owens River, no cattle now use these fields after May 1. The Dixon Place has been separated into four additional pastures, and all pastures are now under RGPs to improve pasture condition. The North Horse, Middle Horse, and South Horse pastures are also under RGPs.

Round Valley Area

Round Valley Pastures are in satisfactory condition. To improve habitat conditions in other fields and pastures that stock will use after leaving Round Valley Pastures, animal numbers have been reduced. Cattle are being rotated among Round Valley Pastures based on when riparian or upland utilization rates are met. All cattle are off the area by May 1 in order to meet flycatcher requirements. The White, West Horton, and East Horton riparian pastures are being rested for a minimum of ten years. The Spawning Channel Riparian Field was fenced to better control livestock, and the Mare and Horse Trap pastures are under RGPs.

Stewart and Wonocott Places

To improve irrigated pasture condition the Stewart and Wonocott places are now under RGPs. Grazing occurs in the Southwest McCumber Field on even years and in the Southeast McCumber Field on odd years. Cattle are removed from these fields either at the end of the grazing period, or when riparian or upland standards are met. All cattle will be removed from the places by May 1 of each year. The Horse Pastures are under RGP management.

Utilization is monitored annually in riparian and upland habitats. A 40 percent utilization rate has been set for all riparian habitats, and a 50 to 65 percent utilization rate set for all upland habitats. Utilization is monitored annually—before, during, and after the grazing period for each pasture/field. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004). For any pasture that scores less than 80 percent, changes will be made in grazing management until the pasture condition score is 80 percent or greater.

Protecting Southwestern Willow Flycatcher Habitat

The Conservation Strategy for the Southwestern Willow Flycatcher requires that no livestock grazing occur in the riparian corridors of the Owens River from May 1 to October 1. To meet the requirements of this document, grazing times were changed in pastures that border or are enclosed by the Owens River. No seeps or springs occur on the lease.

2.1.20.C-T Ranch Grazing Lease RLI-412, RLI-451, RLI- 500, and RLM-441

Riverine-Riparian-Wetland Habitat

The only significant riparian-wetland habitat in the lease borders Rock Creek flowing through the Chance and Schober Parcels.

Past Grazing Management

Cattle grazed the Chance Ranch Parcel from January 1 to June 15 annually. Other cattle also grazed the parcel from mid-June to fall. Horses and mules grazed the Schober Place and Roberts Ranch from September 15 to June 15. The lessee was not required to comply with any utilization or pasture scoring criteria.

Present and Future Grazing Management

The lease's future grazing practices will be very similar to those of the past. An exception is the new riparian enclosure to eliminate grazing constructed along Rock Creek in the Roberts Ranch Parcel.

Utilization is monitored annually in both riparian and upland habitats. A 40 percent utilization rate has been added for all riparian habitats, and a 50 to 65 percent utilization rate added for all upland habitats. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas. Utilization is monitored annually—before, during, and after the grazing period for each pasture/field. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

All irrigated fields or pastures that score an 80 percent condition rating or better are grazed at the discretion of the lessee. For any pasture that scores less than 80 percent, changes will be made in grazing management until the pasture condition score is 80 percent or greater.

2.1.21.Round Valley Ranch Grazing Lease RLI-483

Riverine-Riparian-Wetland Habitat

Riparian-wetlands border the Owens River, as well as the Big Pine, Horton, and McGee Creeks flowing through the lease in the Round Valley area. Most pastures in the Buttermilk area contain riparian-wetland habitat. Birchum Canyon Spring (DWP-31) is surrounded by riparian vegetation.

Past Grazing Management

From November 10 to June 1 cattle grazed the River, Hole, East Side River, and Canal fields. The Round Valley Ranch area was grazed during the winter; the best pasture rotation strategy was used with the major herd that grazed this area from June 1 through September 15. The Georges, Freeway, 40 Acres, Triangle, Big Stockley, Heifer, Tony's, and Homestead pastures were grazed by a few cattle from May through January. The lessee was not required to comply with any utilization or pasture condition scoring requirements.

Present and Future Grazing Management

Due to grazing issues in the past, grazing methods have been changed and past livestock numbers reduced. In addition, because of a recent fire and subsequent decisions made the USFS, much of the Buttermilk area will be rested for a period of five years. The Round Valley areas and the Millpond Field will also be rested. Working/holding corrals in the Round Valley Parcel will be moved away from the Horton Creek streamside zone.

Two new riparian pastures were created in the Big Pine area to protect Southwestern willow flycatcher habitat. Additionally, and in order to meet the requirements of The Conservation Strategy for the Southwestern Willow Flycatcher, cattle will not be allowed to graze the corridor along the Owens River from May 1 to October 1. The Horton Creek Field Parcel will be removed from the lease. After a five-year rest period from grazing, the Upper and Lower Horse Meadows pastures in the Buttermilk area will receive a riparian grazing prescription. Spring DWP-31 is in good condition with minimal impacts from grazing and will not be fenced.

Utilization is monitored annually in riparian and upland habitats. A 40 percent utilization rate has been added for all riparian habitats, and a 50 to 65 percent utilization rate added for all upland habitats. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas. Utilization is monitored annually—before, during, and after the grazing period for each pasture/field. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004). Any irrigated field or pasture that scores an 80 percent condition rating or higher will be grazed at the option of the lessee; however, any pasture that scores less than 80 percent will have changes made in grazing management until the pasture condition score is 80 percent or greater. Some pastures are already going through this process.

2.1.22.Rainbow Pack Outfit Grazing Lease RLI-460

Riverine-Riparian-Wetland Habitat

The only significant riparian habitat on the lease is that which borders Bishop Creek in the Dutch John Parcel. No seeps or springs occur on the lease.

Past Grazing Management

Pack animals (horses and mules) were removed annually from the lease between June 15 and July 1 for use in the Sierras. The actual removal and return dates were at the discretion of the lessee, as long as the lease received 60 continuous days of non-grazing use annually. The Dutch John Field, where the only riparian habitat on the lease is located, was only used when stock were trailed to and from the Sierra Pack Station. The lease was not required to comply with any utilization or pasture condition scoring criteria.

Present and Future Grazing Management

The Dutch John Field will be limited to only one day of grazing in the spring and one day in the fall. Utilization rates have been added and are monitored annually in riparian and upland habitats. A 40 percent utilization rate has been set for all riparian habitats; and a 50 to 65 percent utilization rate set for all upland habitats. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

All irrigated fields or pastures that score a condition rating of 80 percent or greater are grazed at the discretion of the lessee. For any pasture that scores less than 80 percent, changes will be made in grazing management until the pasture condition score is 80 percent or greater.

2.1.23.Warm Springs Grazing Lease RLI-497

Riverine-Riparian-Wetland Habitat

Riparian-wetland areas border the Owens River reach that flows through the lease and border the Buckley, Duck, and Rawson Ponds. No natural springs or seeps occur on the lease. Artesian wells occur near the Owens River and are surrounded by riparian habitat.

Past Grazing Management

Cattle typically grazed the lease from November 1 to May 1, and were placed in different pastures according to expected calving times. Cattle were placed in the northern tract of the Watterson Pasture between November 1 and November 15, where they grazed until January 1 to January 15. These cattle were then placed in the southern tract of the Watterson Pasture, where they grazed until April 15. Cattle were then moved back to the northern tract of the Watterson pasture where they remained until May 1. The River Field was grazed from November 10 to March 1. Cows grazed the North Watterson Pasture from May 1 to June 1. Cattle were then moved to the North Pasture until July 1 when they were removed from the lease. The lease was not required to comply with utilization or pasture condition scoring criteria.

Present and Future Grazing Management

Grazing management practices now being implemented are similar to those used in the past. No grazing issues were identified that would require any major changes in grazing management. The riparian-wetland areas on the lease formed by artesian wells were not impacted by livestock grazing and, consequently, were not fenced for additional protection. To comply with the requirements in The Conservation Strategy for the Southwestern Willow

Flycatcher, grazing in the Owens River corridor within the lease from May 1 to October 1 was eliminated.

Utilization rates were added and are monitored annually in both riparian and upland habitats. A 40 percent utilization rate was set for all riparian habitats; and a 50 to 65 percent utilization rate set for all upland habitats. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas. Utilization is monitored annually—before, during, and after the grazing period for each pasture/field. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

All irrigated fields or pastures that score an 80 percent condition rating or greater are grazed at the option of the lessee. For any pasture that scores less than 80 percent, changes will be made in grazing management until the pasture condition score is 80 percent or greater.

2.1.24.Reinhackle Ranch Grazing Lease RLI-492

Riverine-Riparian-Wetland Habitat

Riparian-wetland areas border the Owens River flowing through the lease. No seeps or springs occur on the lease.

Past Grazing Management

The ranch was grazed using two separate parcels; the Reinhackle and Laws Parcels. The lessee was not required to comply with any utilization or pasture condition scoring criteria. Grazing management was at the discretion of the lessee.

Reinhackle Place

Horses grazed the Horse Holding Field year around. The West, East, and South Fields were grazed year around by cattle using the best pasture rotation strategy. After grazing each pasture, a period of 21 to 24 rest days occurred before the pasture was allowed to be grazed again.

Laws Parcel

Cattle grazed the Laws Parcel year around. On those grazing seasons with sufficient precipitation to provide “green-up” forage, cows were driven to BLM lands to graze part of the year. When this BLM forage was used up, the cows were returned to the parcel. The Laws Holding Pasture was grazed during the month of April. Cows were then moved to the Laws Pasture and grazed from May 1 to September 1. Cattle then returned to the Laws Holding Pasture where they grazed until November 1 to December 1. The South Restricted Field was grazed from November 1 to March 1. The Pole Field was grazed from July 15 to September 1. These cattle were then moved to the South Five Bridges Field until January 1. The North Restricted, Multi Completion Meadow, and North Five Bridges fields were in a non-grazing status.

Present and Future Grazing Management

The lease is now grazed in winter and early spring. Cattle can enter the lease on November 1, and are removed from the lease when off-lease summer pastures are ready to be grazed; usually around May 1. Cattle coming on the lease now graze the Five Bridges area and

Triangle Field first. The North Restricted and North Five Bridges fields are grazed using a three pasture, double-rest rotation strategy, in which each field is grazed only once every three years. Other cattle graze the Triangle Field until January 1, when they are moved either to the Laws Holding Field or the new Laws Riparian Field. These fields are grazed on an alternating basis. Livestock distribution becomes problematic between these two fields when the river flows are low enough to allow livestock to cross the river to other fields. In mid-April to early May, some cattle are moved to the Laws Field. Two livestock watering wells will provide stockwater for the northern area of the Laws Holding Field. The Pole Corral and South Five Bridges Fields are grazed by bulls.

The North Hay Field is only grazed during “green-up” conditions. The Multiple Completion Meadow Pasture will not be grazed until on-going restoration activities are completed. All pastures on the Reinhackle Place are now being grazed from April through August. To protect riparian habitat from grazing, two new fences have been constructed, which now form the new Laws Riparian Pasture. A second new fence along the bluff on the south side of the Owens River allows better control of livestock distribution.

To meet requirements in The Conservation Strategy for the Southwestern Willow Flycatcher, livestock are not allowed to graze the Owens River corridor within the lease from May 1 through October 1. Utilization rates are now monitored annually in both riparian and upland habitats. A 40 percent utilization rate has been set for all riparian habitats; and a 50 to 65 percent utilization rate has been set for all upland habitats. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas. Utilization is being monitored annually—before, during, and after the grazing period for each pasture/field. Two new riparian pastures have been constructed in the lease. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

All irrigated fields or pastures that score an 80 percent condition rating or more will be grazed at the option of the lessee. For any pasture that scores less than 80 percent, changes will be made in grazing management until the pasture condition score is 80 percent or greater. No seeps occur on the lease.

2.1.25. Mount Whitney Parcel Grazing Lease RLI-495

Riverine-Riparian-Wetland Habitat

The only significant riparian-wetland vegetation occurs on the lease is found throughout the fields in the Tuttle Creek Parcel. No seeps or springs occur on the lease.

Past and Present Grazing Management

The Tuttle Creek Parcel was grazed from November 1 to February 1 by horses and mules. Occasionally the parcel was also used for holding stock on their way to and from the Sierras. Presently, the Tuttle Parcel is only used, when necessary, from November 1 through February 1, by a small number of horses and mules. The small number of stock allowed should prevent any detrimental impacts to the riparian-wetlands in the Tuttle Creek Parcel.

Utilization rates have been added, and are monitored annually in both riparian and upland habitats. A 40 percent utilization rate has been set for all riparian habitats; a 50 to 65 percent utilization rate set for all upland habitats. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas. The results of utilization and trend monitoring coupled

with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

All irrigated fields or pastures that score an 80 percent condition rating or greater are grazed at the option of the lessee. For any pasture that scores less than 80 percent, changes will be made in grazing management until the pasture condition score is 80 percent or greater.

2.1.26. Pine Creek Ranch Grazing Lease RLI-498 & RLM-486

Riverine-Riparian-Wetland Habitat

The Pine Creek Lease consists of two separate leases in Round Valley. One lease includes the Round Valley Parcel northwest of Bishop and the other lease includes the Paradise Field west of Paradise. Riparian-wetland areas occur along Pine Creek. Seeps or springs do not occur on the lease.

Past Grazing Management

The Pine Creek Ranch was managed as a cow-calf operation grazing the lease year-round. Generally, all stock grazed the irrigated fields using a best pasture rotation strategy. In years that adequate spring “green up” occurred in the uplands, the entire herd was moved to the Upper Field and Paradise Field for 60 days. The lessee was not required to comply with any utilization or pasture condition scoring criteria.

Present and Future Grazing Management

Future grazing practices will remain the same as past grazing practices, with the exception of added grazing criteria for upland and riparian areas and irrigated pastures. Utilization is monitored annually—before, during, and after the grazing period for each pasture/field. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004). All irrigated pastures within the lease scored a condition rating of 90 percent or greater; consequently, no new grazing prescriptions for irrigated pastures were applied.

A number of problems are impacting Pine Creek as it flows through the lease. If these problems are not corrected, there is a likelihood that Pine Creek will jump from its current channel into one of the adjacent irrigation diversions. LADWP will work with the lessee to develop solutions to this problem. The livestock holding corrals along Pine Creek may be moved to take pressure off of a small portion of the streambanks along Pine Creek. A spring occurs in Ansely Field, but, the surrounding riparian area is not used by the lessee and no grazing problems were identified.

All irrigated fields or pastures that score a condition rating of 80 percent or greater are grazed at the option of the lessee. For any pasture that scores less than 80 percent, changes will be made in grazing management until the pasture condition score is 80 percent or greater.

2.1.27. Little Round Valley Grazing Lease RLM-418

Riverine-Riparian-Wetland Habitat

Crooked Creek provides the only riverine-riparian habitat on the lease. However, seeps and springs have not yet been identified and described to determine their status. Continued

disturbances to riparian-wetland areas can be attributed to recreational vehicles. These off-road vehicles are causing ruts and erosion to spring heads and drainage channels.

Past Grazing Management

The lease borders BLM and USFS lands and is used to support a commercial sheep operation. The 1,039-acre lease is mainly composed of wet meadow bordered by upland habitat. Approximately 370 acres are irrigated from late May to October. Riparian areas are not fenced on the lease to protect this habitat, sheep were moved away from these areas once utilization standards are met.

The lease supports two sheep bands which arrive on the lease in late May and leave in early November. Sheep bedding areas are rotated between four bedding grounds. Sheep arriving on the lease in May were moved to a USFS allotment in July. The North Pasture was grazed for seven days in late June. Around July 1, sheep are completely moved off of the lease. "Bands" return to the lease in late September and graze the South Pasture. Sheep are again completely removed from the lease in late October or early November.

Sheep were bedded down mid-day and evening in fenced bedding grounds. To make sure sheep did not escape and enter wild big horn sheep areas, the BLM was notified immediately if one marker sheep was missing. If wild big horn sheep were observed on the lease the policy was to move domestic sheep to avoid contact.

Present and Future Grazing Management

Future grazing management will be similar to past grazing management. Sheep will be removed from riparian habitat areas either at the end of the grazing period or when the average utilization of herbaceous plants reaches 30 percent. At the end of the plant growing season utilization rates on upland habitat, such as cool season perennial bunch grasses are set at 40 percent. Utilization on saline-sodic meadows that receive no irrigation is set at 65 percent as long as there is 60 continuous days of rest for the area during the plants "active growth stage". If the pasture or field does not receive 60 continuous days of rest, the utilization rate will be 50 percent. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas. Utilization is monitored annually—before, during, and after the grazing period for each pasture/field. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

All irrigated fields or pastures scoring a condition rating of 80 percent or more will be grazed at the option of the lessee. For any pasture that scores less than 80 percent, changes will be made in grazing management until the score is 80 percent or greater. Presently, all pastures rate over 80 percent.

Food supplements will not be fed in riparian-wetland areas and in non-riparian wetland areas they will be rotated from year to year to lessen impacts. Four miles of new fence will be constructed to ensure that domestic sheep do not make contact with wild big horn sheep. This fence will also lessen off-road vehicle damage to wet meadows and springs.

2.1.28. Blackrock Grazing Lease RLI-428

Riverine-Riparian-Wetland Habitat

Riparian shrubs, marsh, and alkali meadow are prevalent along the Owens River. Riparian-wetland vegetation occurs on the floodplain of the Owens River and around Goose and Billy Lakes. Four springs associated with the Owens Valley fault and one additional spring all support surrounding riparian-wetland vegetation. Approximately 18.2 miles of the Owens River constitutes the central riverine-riparian feature on the lease.

The Winterton Unit of the Blackrock Waterfowl Management Area occurs on the lease. An artesian well, at the upper end of the unit, sustains 76 acres of open water and has surrounding vegetated wetlands. This unit contains a large shallow man-made basin with scattered upland islands.

Past Grazing Management

The lease provided 8 months of critical fall through spring grazing. Grazing typically started in early October, and ended mid-May to mid-June. The lease was separated into 18 pasture/fields for animal grazing control. Livestock were rotated among the pasture/fields depending on the forage conditions in each unit.

Present and Future Grazing Management

The present and future grazing strategy closely follows the strategy used in the past. There were, however, changes made to the grazing operations to enhance riparian vegetation along 18.2 miles of the Owens River. Five new riparian pastures were constructed to protect the entire Owens River that flows through the lease. Approximately 17 miles of new fence was constructed along the west side of the Owens River to create these riparian pastures. This will allow for better control of duration and distribution of grazing pressure. All irrigated pastures now have an NRCS pasture condition scoring criteria that the lessee must meet.

Riparian pastures, and all other significant areas of riparian habitat, now have a maximum average herbaceous utilization rate of 40 percent annually. Additional stockwater sites will be developed in the future to better control livestock distribution in riparian areas. Depending on the timing of grazing, upland habitats now have a maximum annual herbaceous utilization of 50 to 65 percent. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas.

Utilization is monitored annually—before, during, and after the grazing period for each pasture/field. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

Well 368 will be managed for the continued existence of Owens pupfish as long as the well flows. Additional water is proposed to supplement the flow of the well; this would ensure that more channel area would be watered and existing ponds would be filled. The Owens sucker occurs in the reach of the Owens River that flows through the lease. Except for artesian Well 368, no special management was employed to protect the five springs that occur on the lease. For better management of Well 368 channels, fences were constructed in order to control livestock distribution, as well as the amount of forage use within the protected area.

The Winterton and Wagoner Units of the Blackrock Waterfowl Management Area occurs on the lease. To protect the unit from grazing influences, riparian grazing prescriptions will apply during the wet-cycle and upland grazing prescriptions will apply during the dry-cycle. In addition, a new riparian pasture (Winterton) was created to provide better animal distribution.

2.1.29. McGee Creek Ranch Grazing Lease RLM-469

Riverine-Riparian-Wetland Habitat

The lease takes in a large area of the west shoreline of Crowley Reservoir and the lower reaches of Mammoth, McGee, and Horton Creeks. Several types of wetlands occur along the edges of Crowley Reservoir, and the ponds and channels surrounding Whitmore Springs. The Whitmore Springs wetland is located in the Whitmore Pasture. Numerous seeps and springs occur along the edges of Crowley Reservoir.

Past Grazing Management

The lease was managed using 23 separate pastures/fields to support a commercial cow-calf operation. Irrigated pastures provided the bulk of the forage produced each year. These irrigated pastures were grazed using a rotational grazing strategy based on the forage production capability of each pasture. The grazing period typically started between May 15 and June 1. The lessee was not required to comply with any utilization or pasture condition scoring criteria.

In the early 1990's, a riparian pasture was created in the Upper Convict Pasture to protect Convict Creek. The corridors of Lower Convict and McGee creek were fenced to protect streambanks. The riparian pasture was grazed once every three years at 30 percent utilization of riparian vegetation. Including the corridor reaches, a total of nine riparian pastures were created to protect riverine-riparian resources.

As cattle entered the lease, they were rotated through the McGee Holding Pasture, South Landing Pasture, Lake Pasture, Falcon Pasture and Triangle Pasture. The Upper McGee, Middle McGee, and Confluence Riparian pastures were also grazed depending on where they were in the three year rest rotation schedule. The Corral and West McGee pastures were grazed by saddle horses and sick or injured cattle. Cattle were stocked in the Convict or Eaton pastures first. To provide protection for sage grouse, a let-down fence was constructed, separating the Upper North Landing Field and the Lower North Landing Pasture. This fence cannot be raised until June 1 to prevent sage grouse from flying into the fence during the lek mating process.

After June 15th cattle were moved into the Whitmore and Upper North Landing Pastures for a period of 30 days provided that spring "green-up" was sufficient. If spring "green-up" was not sufficient, then cattle stayed in the Convict, Lower North Landing, and Eaton Pastures. The Upper Convict, Middle Convict, Eaton Riparian, and South Convict Pastures were also grazed depending on the status of the three year restoration schedule. Livestock grazed the west shoreline of Crowley Reservoir. Cattle also grazed south of Highway 395 in the West Upper Convict Pasture. Cattle remained on the lease until late November if conditions permitted.

Present and Future Grazing Management

The new grazing plan proposes some changes to the past grazing management activities. Two new stockwater sources will be installed in the Whitmore Pasture and Upper North Landing Field to better distribute livestock. This should help reduce grazing effects around the Crowley

Lake shoreline. The new water sources will also help to improve and maintain the conditions of the Whitmore Spring channels. A new fence may be constructed along the Crowley Reservoir high water mark to assist in preventing the introduction of the Quagga Mussel. This would eliminate possible point source pollution from cattle waste entering the reservoir.

Temporary electric fences may be utilized in the Convict and Lower North Landing Pastures in order to better control livestock distribution. Grazing pressure in riparian pastures will be increased due to a change in grazing directions. Riparian pastures will be grazed once every year, instead of once every third year. Cattle will still be removed each year, either when riparian plant utilization reaches 30 percent or when the grazing period ends.

The riparian pastures were previously grazed on a three-year rest rotation grazing schedule. Green line and other riverine-riparian monitoring have demonstrated that the grazing strategy resulted in large ecological improvements. The Upland Convict Riparian Field contains upland habitat that is used by sage grouse and other wildlife species. If significant amounts of upland vegetation occur within any riparian pasture or field, the area will have upland utilization standards also applied.

The Whitmore Pasture will only be grazed at 40 percent utilization to protect upland, spring and channel habitat. This level of utilization will also benefit sage grouse and the Long Valley Speckled Dace. Monitoring will be conducted to ensure that this grazing strategy fully protects the listed species. This utilization standard (40%) was selected to ensure that the required amount of cool season perennial bunchgrass and shrub cover remains available for sage grouse nesting and brooding. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas.

Green line analysis, vegetation time trends, and fish habitat monitoring conducted on the lease since 1994 and will continue. If a downward trend occurs in any of the monitoring variables, adaptive management measurements will be made to correct the situation.

All irrigated fields or pastures that score an 80 percent condition rating or better are being grazed at the option of the lessee. For any pasture that scores less than 80 percent, changes will be made in grazing management until the pasture condition score is 80 percent or greater. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

All known seeps and springs on the lease were inspected during grazing plan development. Changes in management were not made to protect any of these areas except for Whitmore Springs. The team determined that the grazing strategies being applied will maintain the healthy condition of these seeps and springs.

2.1.30.Chance Ranch Grazing Lease RLM-468

Riverine-Riparian-Wetland Habitat

Mammoth Creek flows through the lease and is surrounded by riparian-wetland vegetation. Wet meadows, moist flood plains, and riparian streambank vegetation occur on the lease. Woody riparian species include willow, alder, and rose. Herbaceous species associated with the riparian-wetland areas include sedges and rushes. Four springs occur on the lease.

Past Grazing Management

The lease supported a commercial cow-calf operation with production of needed replacement heifers. Typically, cattle arrived from May 1 to May 31 to graze the lease. Grazing continued until the turnout dates in mid-June, when cattle were released onto adjacent USFS grazing allotments. Some pairs remained on the lease during the entire grazing period. The lease was then grazed lightly until livestock returned from federal allotments in September. Cattle were removed from the lease in October or November.

Cattle were placed into irrigated pastures and most of them were removed by mid-June. A best pasture rotation strategy was used to rotate cattle through the pastures. On years in which conditions were not favorable, some pastures were not grazed at all. The replacement heifers spent the entire grazing season on selected irrigated pastures. It was a management objective to avoid grazing the same pasture at the same time each year. Riparian pastures were grazed annually at 35 percent riparian forage utilization. There were no forage utilization criteria set for upland areas or areas not included in riparian pastures. Some pairs remained on the lease to graze from September to October 1.

Riparian pastures were created in the 1990's to protect and improve riverine, riparian, and fisheries conditions in Mammoth Creek and some of its side drainages. Subsequent monitoring of these pastures reveals a very successful outcome.

Present and Future Grazing Management

The new grazing plan proposes no significant changes to past grazing management, except for utilization standards and pasture condition criteria. The upland habitat occurring within pastures/fields will be grazed between 40 and 65 percent utilization, depending on their status of the habitat. Utilization on saline-sodic meadows that receive no irrigation will be grazed at 65 percent utilization. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas.

Pastures/fields containing exclusively upland habitats with cool season perennial bunch grasses will only be grazed at 40 percent. Those sodic meadows having 60 days of continual rest during the plant growing season are grazed at 50 percent, while all other pasture/fields are grazed at 65 percent. On those pastures/fields that include both City and federal lands, the City will defer to the standards and guidelines set by the BLM and the USFS. Livestock will be removed from riparian pastures either when forage utilization reaches 35 percent, or at the end of the grazing period, whichever occurs first.

The lease contains 2,274 acres of which 753 acres are irrigated. These irrigated pastures will now be managed using a pasture condition scoring method. Any irrigated pasture that scores 80 percent or greater will continue to be managed as it was in the past. Any irrigated pasture that scores less than 80 percent will have changes made in its management. Utilization is monitored annually. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

Green line analysis, vegetation trends, and fish habitat monitoring that has been conducted on the lease since 1994. If a downward trend occurs in any of the monitoring variables, adaptive management measurements will be implemented to correct the situation if those measurements are thought to effectively address observed downward trends.

2.1.31. Fish Slough Grazing Lease RLM-488

Riverine-Riparian-Wetland Habitat

The lease is within zone 1 of the Fish Slough area of critical concern. The lease harbors two federally listed species and several sensitive species. Two springs on City land, along with springs on BLM land sustain exclusive wetlands and deliver perennial water flow through Fish Slough and on to the Owens River. Fish Slough and its springs sustain more than 400 acres of alkali marsh and wet meadow vegetation. A series of small dams create a group of associated small ponds.

Past Grazing Management

The City owns 2,058 acres within Fish Slough of which 1,096 acres were grazed. The lease was divided into six pastures for livestock grazing control, and now supports a commercial cow-calf operation. Two major springs were also fenced to exclude livestock grazing. The lease was grazed primarily in the late spring and summer, using a rotational grazing strategy in combination with other grazing lands outside of the lease. The lessee was not required to comply with any utilization or pasture condition scoring criteria.

Present and Future Grazing Management

Utilization rates have been added and are monitored annually in both riparian and upland habitats. A 40 percent utilization rate has been set for all riparian habitats, and depending on the times that the pastures are grazed, a 50 to 65 percent utilization rate is set for all upland habitats. Significant riparian-wetland habitat is found within all pastures on the lease. Due to this, the utilization standard for each pasture will be set at 40 percent, except for the Hospital Pasture, which will be grazed at 50 to 65 percent depending on the timing that the pasture is grazed. There are no utilization criteria established for livestock gathering areas, shipping areas, or holding areas. Utilization is monitored annually—before, during, and after the grazing period for each pasture/field. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

The Calochortus, Square, and Lake Fields all contained the Fish-Slough milk vetch plant and will not be grazed from April 1 to August 1 in order to protect the plants during flowering and seed setting. The Hospital Field may serve as a location for tending to sick animals because the field abuts livestock handling facilities to the west.

2.1.32. Healyville Ranch Grazing Lease RLM-496

Riverine-Riparian-Wetland Habitat

The North River Pasture contains a large reach of the Upper Owens River, while the South Pasture contains a smaller reach. O'Harrel Creek flows through a 36-acre parcel in O'Harrel Canyon. The stream is lined with a densely wooded gallery of beach and aspen trees, and consequently, the majority of the streambanks are inaccessible to livestock grazing. A 156-acre wetland-meadow is contained within the Big Meadow Field, and is being managed by the USFS. Alkali meadows occur around the margins of the Outside Meadow and Healyville pastures. A single spring surrounded by riparian vegetation is located in the Healyville Ranch Grazing Lease.

Past Grazing Management

Riparian pastures were created in the 1990's to protect the reach of the Owens River that flows through the lease; these pastures were only grazed once ever three years. Riparian pastures were grazed starting in June on whichever pasture was best suited at that time. Cattle were removed from the riparian pastures either at the end of the grazing period or when the average utilization of herbaceous forage reached 30 percent.

Irrigated lands occur on the Big Meadow (234 acres), North River (43 acres), West Field (72 acres), Outside Meadow (40 acres), and MD (30 acres) Pastures. Cattle were seasonally rotated through the irrigated pastures using the best pasture rotation strategy. Cattle were moved to the lease in early summer, and removed from the lease in the fall. Cattle were first moved into the Big Meadow Field around May 1. Additional cattle were stocked in this field on June 1st. The original herd was then transferred to the Heifer Field in early June, and both herds remained in this field until early July. The first herd was moved to the Healyville Pasture and grazed for 30 to 60 days. The larger herd was moved off the Big Meadow Field to a USFS allotment. Additional cattle were moved onto the lease into the West Field Pasture and grazed for 30 to 60 days. These cattle were then moved to either the North Riparian or South Riparian River Pastures, where they grazed for 10 to 20 days.

Between August 1 and September 1, all cattle were gathered from the North or South Riparian Pastures and the USFS allotment and moved to the Big Meadow Field. At this same time, cattle from the Healyville and BLM allotment were moved to the Outside Meadow. From September 10 through October 20, all cattle were gathered and removed from the lease.

Present and Future Grazing Management

Except for utilization standards and pasture condition scoring criteria, very few changes were made to the past grazing practices. The new grazing plan still calls for managing the nine pasture/fields in nearly the same manner. The only significant change is that the North River and South River Riparian pastures will receive increased frequency of grazing. Whereas past grazing practices only prescribed grazing these pastures every other year, these two pastures are now being grazed every year, with a maximum utilization of 30 percent on riparian vegetation. The Outside Meadow is the only upland pasture that lies entirely within the LADWP lease. This pasture will be subjected to upland utilization standards on those areas that are not being irrigated.

Utilization rates have been added, and are monitored annually in both riparian and upland habitats. A 40 percent utilization rate has been set for all riparian habitats, a 50 to 65 percent utilization rate set for all upland habitats. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas. Utilization is monitored annually—before, during, and after the grazing period for each pasture/field. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

All irrigated fields or pastures that score a condition rating of 80 percent or better are grazed at the option of the lessee. For any pasture that scores less than 80 percent, changes will be made in grazing management until the pasture score is 80 percent or greater.

Green line analysis, vegetation trend, and fish habitat monitoring has been conducted on the lease since 1994 and will continue. If a downward trend occurs in any of the monitoring variables, adaptive management measurements will be implemented to correct the situation if those measurements are thought to effectively address observed downward trends.

2.1.33. Benton Crossing Grazing Lease RLM-471

Riverine-Riparian-Wetland Habitat

The Upper Owens River flowing through the lease encompasses a long reach upstream from Crowley Reservoir. Lower Hot Creek also flows through the lease and is bordered by riparian and wetland habitat.

Wetlands and wet meadows are located within irrigated pastures. Riparian pastures were constructed in the early 1990's to protect wetland-riparian habitat within the lease. The lease borders part of the shoreline of Crowley Reservoir along the north-western arm. Eight springs occur on the lease and support associated surrounding wetlands. Plant species associated with riparian-wetland habitats include sedges, rushes, and spike rush. Alkali and sodic meadows are located along margins of the wet meadows.

Past Grazing Management

The lease was separated into ten pastures to support a commercial cow-calf operation with separate yearly herds. Grazing occurred annually over a five to six month period, mainly in the summer. Riparian pastures were created in the early 1990s to protect the Upper Owens River, its fisheries and surrounding riparian habitat. Over the past 13 years, livestock have grazed each riparian pasture once every three years. Cattle grazing started in June on whichever riparian pasture was scheduled and was the most suitable. Cattle were removed from riparian pastures either at the end of the grazing period or when the average utilization of herbaceous forage reached 30 percent. Cattle grazed the shoreline of Crowley Reservoir.

Cows, calves, and replacement heifers were seasonally rotated through the pastures using the best pasture rotation strategy. Cattle usually grazed the lease from May 1 until fall. Cattle were first placed in irrigated pastures, but by mid- June the bulk of the pairs were moved off of the irrigated pastures; some of the animals were moved to surrounding BLM and USFS lands. The replacement heifers spent the entire grazing season on irrigated pastures with the remaining pairs; together they grazed the Big Field until October 1. These animals were then moved back to irrigated pastures where calves were weaned and moved off the lease. The remaining cattle grazed the lease until they were removed during the first part of November.

One mile of let-down fence was constructed along the southwest corner of the River Pasture to reduce the risk of sage grouse colliding with the fence as they fly to and from leks. A second let-down fence was also constructed east of the Benton Crossing Landfill to decrease the risk of fly-by mortality.

Present and Future Grazing Management

The new grazing plan does not propose significant changes to past grazing management. However, modifications to past grazing methods were made for the Upper and Lower Riparian Pastures. Grazing on these riparian pastures in the past occurred only every other year, and forage utilization was set at 30 percent. The new grazing plan calls for each riparian pasture to be grazed yearly, with utilization still set at 30 percent.

Grazing exclusions and/or selected riparian pastures that have been designated to rehabilitate the reaches of the Owens River flowing through the lease will end in 2012. Since the late 1990s, when these pastures were constructed to improve riparian habitat and fisheries in and along the Owens River, habitat evaluations have documented large improvements. After 2012, because of the large improvement in riverine-riparian conditions, these riparian pastures will again be grazed. The new grazing will be under light prescriptions. The riparian pastures will be grazed yearly some time during the June to October grazing period. Cattle will be removed from riparian pastures either when the average herbaceous forage use reaches 30 percent or at the end of the grazing period.

The upland habitat that occurs within pastures/fields will be grazed between 40 and 65 percent, depending on the dominant plant community. Pastures/fields that exclusively contain upland habitats with cool season perennial bunch grasses are only grazed at 40 percent. Those pastures/fields that are primarily sodic meadows will be grazed at 50 percent, if they receive 60 days of continual rest during the plant growing season use can increase to 65 percent. Utilization standards do not apply to livestock gathering areas, shipping areas, or holding areas. Forage utilization is being monitored annually. The results of utilization and trend monitoring coupled with additional relevant data will be used to determine the need for adaptive management actions such as the modification of utilization rates, grazing periods, and stocking rates (Sec. 2.8.1.4, EIR, 2004).

The lease contains 425 acres of irrigated lands. Irrigated pastures will now be managed based on the results of a pasture condition scoring method. Any irrigated pasture that scores 80 percent or greater will be managed at the option of the lessee. For any irrigated pasture that scores less than 80 percent, changes will be made in management until the score is 80 percent or greater.

Greenline analysis, vegetation trend, and fish habitat monitoring has been conducted on the lease since 1994 and will continue. If a downward trend occurs in any of the monitoring variables, adaptive management measurements will be implemented to correct the situation if those measurements are thought to effectively address observed downward trends. Greenline transects that border the river are being analyzed every fifth year to determine if changes in riparian habitat condition are occurring.

2.2. References for Grazing Management

- Beschta, R.L., and W.S. Platts. 1986. Morphological features of small streams: Significance and function. *Water Resources Bulletin* 22(3):369-379.
- Chaney, E., W. Elmore, and W.S. Platts. 1990. Livestock grazing on western riparian areas. Environmental Protection Agency, Denver, CO.
- EIR.2004. Final Environmental Impact Report, Lower Owens River Project, Los Angeles Department of Power, Bishop, CA.
- Hormay, A.L. 1970. Principles of rest-rotation grazing and multiple use management. Training text 4(2200) USDA Forest Service, Washington, D.C.
- Gifford, G.F., and R.H. Hawkins. 1976. Grazing systems and watershed management: A look at the record. *Journal of Soil and Water Conservation* 31(6):281-283.
- Heede, H.F. and others. 1974. Livestock grazing on federal lands in the 11 western states. *Journal of Range Management* 27(3):174-181.
- Hickin, E. 1984. Vegetation and river channel dynamics. *Canadian Geographer* 28(2):111-126.
- Larsen, D.P. et al. 1986. Correspondence between spatial patterns in fish assemblages in Ohio streams and aquatic ecoregions. *Environmental Management* 10(4):615-628.
- LADWP. 2007. Conservation Strategy for the Southwestern Willow Flycatcher on City of Los Angeles Department of Water and Power Lands in the Owens Management Unit. Bishop, CA.
- MOU. 1997. Memorandum of Understanding, County of Inyo and City of Los Angeles, Bishop, CA.
- Platts, W.S. 1979. Relationships among stream order, fish populations, and aquatic geomorphology in Idaho River drainage. *Fisheries* 4(2):5-9.
- Platts, W.S. 1990. Managing fisheries and wildlife on rangelands grazed by livestock – A guidance and reference document for biologists. Nevada Department of Wildlife, Reno, NV.
- Platts, W.S. and R.L. Nelson. 1985a. Stream habitat and fisheries response to livestock grazing and instream improvement structures, Big Creek, Utah. *Journal of Soil and Water Conservation* 49(4):374-379.
- Platts, W.S. and R.L. Nelson. 1985b. Streamside and upland vegetation use by cattle. *Rangelands* 7(1):5-10.
- Smith, D.G. 1976. Effect of vegetation on lateral migration of anastomosed channels of a glacier melt water river. *Geological Society of American Bulletin*. 87:857-860. Document Number 60604.

3.0 RECREATION PLAN

The City owns a substantial portion of land in the Owens Valley that is largely open for public recreational use. City-owned lands offer a broad array of recreational opportunities to Owens Valley residents and have also become a recreational destination for tourists. Recreational use in the Eastern Sierra has grown rapidly in recent years, largely due to the wide range of recreational pursuits available, including rock climbing, fishing, hunting, hiking, biking, Off-Highway Vehicle (OHV) driving, and wildlife viewing. The valley bottoms, riparian, and upland areas of City lands are host to tens of thousands of recreationists seasonally. This unique recreational experience helps support the local economy. However, the increased recreational use also results in overcrowding and potential overuse of natural resources. Consequently, there is a need for sound land management practices to manage the natural resources of the area, limit impacts, and preserve the semi-primitive recreational experience that visitors and local residents enjoy. LADWP is an agency that manages for multiple uses and recreation is one of the encouraged values.

Purpose and Need

Management of recreationally-used lands is a balance between meeting the needs and expectations of the land users and upholding environmentally sound resource management guidelines. Those who recreate on City lands have certain values and expectations for their recreational experience. However, a limited supply of resources exists in the Owens Valley, and land managers must bridge the gap between making environmentally conscious decisions and utilizing resources.

In addition to upholding sensible resource management goals in managing City-owned lands in the Owens Valley, it is essential to maintain the goals and mission of the LADWP. The goals of the LADWP are to ensure a reliable supply of high quality water to the City of Los Angeles and to do so in an environmentally responsible manner. Land management decisions to meet water supply goals must be compatible with maintaining a healthy watershed in the Owens Valley.

Moreover, land management decisions in the Owens Valley must also be in compliance with obligations set forth in the 1997 MOU. This Recreation Management Plan will aid in ensuring the health of the Owens Valley watershed, and will also fulfill the Department's 1997 MOU obligation regarding the preparation of Owens Valley Management Plans.

This Recreation Management Plan encompasses all City of Los Angeles-owned non-urban lands within the portion of the Owens River watershed located in Inyo County not included in the LORP Planning Area (see Figure 1.2, Chapter 1 of the OVLMP). This Plan will supplement recreation direction contained in the Lower Owens River Project (LORP) Final Environmental Impact Report (FEIR) and subsequent LORP Recreation Plan.

Plan Development

In the 1990s, LADWP implemented several watershed restoration projects in Mono County along the Upper Owens River and its tributaries in Long Valley (Mammoth Creek, Convict Creek, and McGee Creek). The success of these projects was the driving force behind developing projects in Inyo County. The Mono County project components included installing pasture fencing along stream corridors to improve streamside habitat by allowing riparian vegetation to flourish, and protecting downstream water quality and quantity to the Owens River and Crowley Lake. The objective was to reduce impacts to stream banks from grazing and vehicles and allow the ecosystem to recover naturally without using more invasive methods (i.e.

heavy equipment). The fencing allows both recreational and livestock use of the areas. The primary purpose of fencing is to allow a riparian corridor to develop so that the stream can be restored to proper condition. Riparian fencing provides ranchers with the means to effectively control livestock use patterns such as timing and distribution, and also provides the public with parking areas and walkthrough access points to reduce human impacts to streams and wet meadows. Several years later, the success of this management is evident along the Upper Owens River and Mammoth, Convict, and McGee creeks. In most areas the banks are rich with diverse riparian vegetation, including rushes, sedges, and native grasses, and there is substantial willow recruitment and growth along the tributaries and the Owens River. The stream banks are stabilizing with the increased vegetation and reduced livestock and human impacts. LADWP's lessees are successfully using the program, and the public, recognizing that these management measures have improved their recreational experience, has generally welcomed the use of certain access points and designated parking areas.

Prior to plan development, LADWP Watershed Resources Staff solicited comments from all MOU Parties regarding recreationally based issues and concerns on City-owned property. All Parties had the opportunity to comment and provide input to the Plan. LADWP, using information from MOU Parties and LADWP Watershed Resources Staff, prioritized recreational issues and areas of concern on City of Los Angeles-owned lands. LADWP also solicited input from the public through public interviews and focus group meetings to gain the public's perspective on recreation on City-owned lands. All procedures in plan development were coordinated by LADWP Watershed Resources Staff with direction from Ecosystem Sciences, and are in compliance with the 1997 MOU and applicable provisions of CEQA.

3.1. Recreation Management Goals and Objectives

MOU Goals and Objectives

Based on the findings from public outreach, LADWP recognizes that continued access on its lands is desired for multiple interests, along with guidelines for resource protection. Public interests wish to maintain the rural atmosphere that currently exists in the Owens Valley while continuing to participate in a wide array of activities. The MOU recognizes the main reason the City owns the land, stating that LADWP shall continue to protect water resources used by the citizens of Los Angeles while providing for the continuation of sustainable uses such as recreation, livestock grazing, agriculture, and other activities. In doing so, LADWP shall promote biodiversity and healthy ecosystems, and address situations or problems that occur from the effects of various land uses on City-owned property. The MOU states that priority is to be given to riparian areas, irrigated meadows, and sensitive plant and animal habitats, and that the work done in Long Valley and Upper Owens River areas will be used as models where appropriate.

The riparian restoration efforts implemented in Long Valley and the Upper Owens River (see Section 4.1.2) were very successful; the riparian ecosystem was re-established and reconnected with river, wetland, and upland habitats. Designated parking areas, walkthrough access, and signage have been effective management tools to regulate the impacts of recreational use in these areas, and users have adapted and welcomed these changes to protect the resources. These positive management actions developed and implemented by LADWP will be implemented on City-owned lands in Inyo County as part of this Recreation Management Plan.

The MOU goals that pertain to recreation management are described below, along with the objectives. The management tools described under Section 4.3 will be implemented as part of this Recreation Management Plan to meet these goals and objectives.

1. Continue to provide recreational opportunities on City-owned lands. The Recreation Management Plan will continue to provide public access to City lands and support the local tourist economy, and be managed for multiple uses, while maintaining a diversity of quality recreational opportunities.
2. Implement sustainable land management practices for agriculture (grazing) and other resource uses. The Recreation Management Plan will consider the need to maintain irrigated meadows/pastures in good to excellent condition (as specified in the Grazing Management Plans), and safeguard and minimize impacts to cultural resources.
3. Improve biodiversity and ecosystem health (condition). The Recreation Management Plan will implement actions to protect and/or restore riparian areas to minimize erosion, improve bank stability, optimize water quality benefits, and enhance plant biodiversity.
4. Protect and enhance habitat for threatened and endangered species. This plan will provide for the protection of wildlife and sensitive plant species in riparian areas, meadows, and other locations of importance.

The objectives that were developed for the Recreation Management Plan to meet MOU goals include:

1. Modify the location and intensity of recreational activities.
2. Maintain a natural environment with minimal development to benefit the recreational experience on City lands.
3. Monitor and use adaptive management through time.

This management direction is intended to accommodate the competing interests of preserving the primitive and undeveloped character of the resource, satisfying legal and organizational commitments, and supporting the local economy.

3.2. Multiple Use Approach to Recreation Management

City-owned lands in Inyo County are currently managed under a multiple use concept with a substantial portion leased for agriculture, livestock, and other uses. LADWP allows approximately 75% of its leased lands to remain open to the public for recreation and enjoyment (with the exception of critical areas such as irrigated pastures). All lands that are not open to recreational use are currently posted. Gates should be left as they are found—either open or closed so as not to interfere in livestock or agricultural activities. LADWP intends to maintain this recreational access but acknowledges that some restrictions may need to be implemented if impacts to watershed resources become too severe or public safety becomes a concern. OHV use, use of firearms, and any other potentially disturbing recreational activities are not permitted near livestock or in their pastures.

City property is and will continue to be managed for multiple uses, while maintaining a quality recreational experience for those who choose to recreate in the Eastern Sierra. A description of the recreational opportunities available on City-owned lands is provided below, along with the regulations that users must comply with.

Artifact Gathering/Pot Hunting

City-owned lands are open for day use and exploring; however, it is prohibited by law to disturb or remove any artifacts such as Native American arrowheads, bones, petroglyphs, and relics from ceremonial or burial grounds. It is also unlawful to disturb structures or artifacts of historical significance, such as those used for mining or agricultural purposes.

Camping

City-owned lands in the Owens Valley are open for day use only. Camping on Department property is only allowed in thirteen designated campgrounds in the Eastern Sierra. No dispersed camping is permitted on LADWP-managed lands. Ten of the thirteen campgrounds are located in Inyo County (Baker Creek, Brown's Schober Lane, Diaz Lake, Glacier View, Independence Creek, Millpond, Pleasant Valley, Portagee Joe, Taboose Creek, and Tinemaha Campgrounds). These facilities provide hundreds of campsites for visitors, and are located on or near lakes or streams. LADWP remains receptive to the future development of formal camping facilities if such opportunities are presented and can be done in an ecologically sound manner.

Fires

The risk of catastrophic wildfires to the environment and local communities can be severe, especially in the dry climate of the Eastern Sierra. As such, campfires are allowed in designated campgrounds only, and only where barbecues or fire rings are provided. Campfires must not be left unattended and must be completely extinguished before leaving the campsite. Creation of fire rings outside designated areas on Department lands is prohibited.

Fishing

Fishing is open to the public on all LADWP waters except where posted. All fishing is subject to the regulations of the California Department of Fish and Game, and violations are punishable by law. When utilizing LADWP resources for fishing, care should be taken to protect the water bodies by not leaving trash or waste behind, and not driving directly into the river, creek, or stream banks.

Hiking and Biking

City-owned lands are used for both hiking and biking for day use purposes. Areas that are off limits to hiking and biking will be posted, and all users must not disturb wildlife, vegetation, build fires, or leave trash behind. Biking is limited to existing trails.

Hunting

Hunting on City lands is allowed where permitted by state law except where posted. The various hunting seasons (deer, game birds, etc.) and applicable regulations are under the jurisdiction of the California Department of Fish and Game. Firearms are not to be discharged within 150 yards of occupied buildings, farm structures, livestock, public roads, or highways. Much of the property owned by the City of Los Angeles in the Owens Valley is leased for livestock and agriculture; thus, all gates used for access are to be left the way they are found either open or closed.

Off Highway Vehicle (OHV) Use

OHV use on City-owned lands is limited to existing roads and trails, away from residential areas. OHVs are not to be used to create new roads and trails or cause damage to existing vegetation.

Extra caution should be taken when using OHVs in areas where livestock are present. OHV use, like any recreational use on City-owned lands, is done at the user's risk.

Rock Climbing and Bouldering

Rock climbing and bouldering are allowed on City-owned lands as part of day use recreation. Climbers are not to leave chalk marks and hardware on or in rocks and crevasses, and are to minimize damage to vegetation if using crash pads. Climbers are not to drive off road to get to climbing locations. All climbing and bouldering is done at the user's own risk.

3.3. Recreation Management Tools

LADWP is committed to managing recreation in a way that will provide for continued use while protecting watershed and cultural resources in the Owens Valley. This section of the Recreation Management Plan describes the tools that LADWP will use to manage recreation on City-owned lands. This list may not be all-encompassing, as the Department cannot foresee all future needs and applicable management methods. All recreation management tools used by LADWP will be implemented on a site-specific basis.

Education about natural resources will be used as a vital management tool to inform users about their impacts to the resource, and to encourage proper use of the land. For example, the LADWP may install kiosks with informational materials about LADWP's recreation opportunities and policies to encourage recreators to tread lightly and handle waste accordingly, or provide brochures that are available in key public locations (e.g., Chambers of Commerce, visitor centers, etc.).

When recreation is impacting (or has the potential to significantly affect) a threatened or endangered species or cultural resource, LADWP may install barriers to modify use and protect the affected resource(s). If use patterns threaten riparian or meadow vegetation, critical bird nesting areas, rare plant populations, or cultural resource areas, physical barriers may be installed to restrict access to the threatened resource. These barriers include fencing, boulders, and railroad ties, which will be installed to eliminate vehicular impacts to streambanks, and to provide closure to roads that are no longer needed or have other resource related concerns (e.g., road runs through a rare plant population or access threatens a cultural resource). Gates and walkthroughs will also be installed to alter access points and use patterns, where necessary.

LADWP will pursue violations such as trespassing or unlawful hunting and fishing to the fullest extent of the law. LADWP staff, including aqueduct and reservoir keepers, construction crews, biologists, and hydrographers will continue to patrol and monitor the area, and will notify authorities of violations. Ranch lessees will serve as additional eyes and ears in the field and can report recreation misuse or other types of violations.

3.4. Management Protocol for Individual or Group Events

Activities such as charity events (i.e., run/walks), equestrian events, hot air balloon and model airplane use, and scientific research occur on City of Los Angeles-owned lands. The protocol for handling requests for individual or group events is to require the requesting party to submit a proposal to LADWP in writing and apply for permission to conduct the activity. The appropriate division of the LADWP (i.e., Watershed Resources, Real Estate, and Engineering) will review the proposal and issue a Letter of Permission if approved. This Letter of Permission contains a series of conditions that parties must adhere to while conducting activities on Department lands.

The letter also contains an expiration date and may require fees. The Letter of Permission is not valid until a signed copy is returned to LADWP agreeing to the specified conditions.

Proposed Projects for Areas of Specific Concern

There are areas of specific concern on City lands that have experienced resource damage as a result of recreational use. This section identifies those areas, describes the impacts, and summarizes the proposed projects that will be implemented to improve the condition of the affected resource(s).

Implementation of these projects will be conducted in a phased approach, allowing the agency to manage the most critical needs identified in the MOU and/or by other jurisdictional agencies first. LADWP will begin implementing projects along the Middle Owens River corridor (Pleasant Valley Reservoir to Tinemaha Reservoir) over the first three years following the adoption of this plan, in accordance with LADWP's Conservation Strategy for the Southwestern Willow Flycatcher. Following the completion of these projects, projects in the southern portion of the management area (Tinemaha Reservoir to the Los Angeles Aqueduct intake structure) will be implemented. Finally, areas with less urgency from a natural resources and/or public safety standpoint will be addressed, including much of the area's uplands. LADWP will continue to manage recreation on a daily basis using the management tools described, along with implementing the projects described below. Implementation of these projects will be contingent on funding and available personnel.

Project 1 Riparian fencing between Pleasant Valley Reservoir and Hwy. 6.

Project 2 Fencing, parking areas, and sign installation at Hwy. 6 and Owens River.

Project 3 Parking area and road modifications at East Line Street and Owens River.

Project 4 Parking area improvements at Warm Springs Road and Owens River.

Project 5 Parking area and road modifications at Hwy. 168 and Owens River.

Project 6 Streambank protection at Stewart Lane and Owens River.

Project 7 Parking area improvements, road closure and sign installation along Owens River south of Tinemaha Reservoir.

Project 8 Fencing installation and road improvements along certain parts of the Owens River to Los Angeles Aqueduct intake.

Project 9 OHV management and signage off Reata Lane southwest of Bishop.

Project 10 Cooperate with BLM and USFS agencies to implement road and campsite management strategies in the Buttermilk area.

Project 11 Coordinate with Inyo County to install trash and toilet facilities at Klondike Lake.

At the time this HCP was prepared, LADWP had fully implemented Projects 1-6.

Following the implementation of the projects described below, LADWP will monitor to evaluate their effectiveness. Monitoring efforts should not incur high costs, nor should they demand significant energy input to be accomplished regularly. Due to the amount of lands being managed, highly intensive monitoring programs are not practical. As such, monitoring for small projects will be conducted through periodic patrols by LADWP staff as part of their daily tasks to note if violations have occurred and to measure the success of management measures. For longer term projects (e.g., riparian fencing, or other multiple phase projects), a series of photo points will be established prior to project completion to provide baseline information. These locations will be periodically reevaluated over time to note changes and the need, if any, for a change in management prescription. Reporting will be based on annual monitoring efforts and will include photos from monitoring locations, general information on noted changes, and any further information regarding management modifications, if applicable. The construction of any new facilities for recreation management may be subject to CEQA and other state/federal regulations, which will be complied with prior to implementation.

Owens River: Pleasant Valley Reservoir to Highway 6

Description: The Volcanic Tablelands north of Chalk Bluffs Road (northwest of Bishop) receives a substantial amount of recreational use from rock climbers and those exploring nearby Native American petroglyphs. The majority of popular climbing destinations are located on BLM lands adjacent to City property; however, access to these areas, including Happy and Sad Boulders is on City land along Chalk Bluffs Road. LADWP and BLM worked together in the late 1990s to establish a designated parking area and kiosk for access to the Happy Boulders. Based on the success of this interagency effort to support recreational uses, the BLM and LADWP established a second parking area at the base of Sad Boulders in 2005. A kiosk was constructed along with a toilet facility in order to minimize impacts and assist in regulating use. Informational flyers (produced by the BLM) have also been placed in key locations in the area to inform climbers of agency rules and regulations. LADWP will continue to collaborate with the BLM to manage recreation in this area.

The section of the Owens River between Pleasant Valley Reservoir and Highway 6 northwest of Bishop (Figure 4.3) also receives a considerable amount of fishing, camping, and exploring. As a result, the cumulative impacts of scattered vehicular use and the multiple roads leading to the same destination have caused significant impacts to the riparian areas. This locale is also marked by the continued action of vehicles driving directly up to the banks of the river, rendering many areas of the river bank unstable and devoid of vegetation.

The section of the Owens River between Five Bridges Road and Highway 6 has some areas of concentrated recreational use. If these areas begin to degrade and resources become significantly impacted, LADWP will implement the management tools discussed.

Status: Implemented. LADWP installed fencing along this section of the river between 2008 and 2010. Parking areas outside of the riparian corridor were established and walkthroughs were installed. Subsequently, LADWP installed 2 additional handicapped access points for the public in 2011.

Owens River: Highway 6 to Tinemaha Reservoir

Description: The Owens River between Highway 6 and Tinemaha Reservoir has several areas that have extensive resource damage due to high levels of recreational use. These problem areas occur where the river intersects Highway 6, East Line Street, Warm Springs Road, Highway 168, and Stewart Lane. The resource damage in these locations varies, but is largely

a result of vehicles parking directly on the banks to access the river for fishing, float tubing, and other recreational pursuits.

LADWP will use boulders or other barrier devices if necessary, to obstruct direct vehicular access to the banks of the river. The Department may also install designated parking areas (with walkthrough access points) that blend with the landscape, where appropriate. Though LADWP does not intend to restrict recreational access in these areas and recognizes the need to manage these sections of the river since they sustain high recreational use. LADWP will install minimal signage in key locations, if needed, to inform users about management procedures and recreational uses on its lands.

In areas along the river where there is less recreational impacts but where potential resource concerns occur (e.g., impacts to rare plant populations or degradation of the riparian ecosystem), LADWP will implement the applicable management tools described.

Status: Implemented. LADWP installed barrier devices to restrict vehicular access to the banks of the Owens River and to define parking areas in 2010 where the river intersects with Highway 6, East Line Street, Warm Springs Road, and Highway 168. Bank condition and riparian vegetation had improved since the plan was written at Stewart Lane, so treatment in this area was deemed unnecessary.

Owens River: Tinemaha Reservoir to Los Angeles Aqueduct intake

Description: The Owens River from Tinemaha Reservoir to the Los Angeles Aqueduct intake is another section of river that is greatly impacted by vehicle use. The high use has resulted in multiple roads, which has impacted the riparian areas. In many areas, banks are cut and unstable, and devoid of vegetation.

3.5. Projects Applicable to the Entire Management Area

In the Owens Valley, vehicle access is integral to the recreational experience but also results in the greatest impacts to resources. Networks of access roads are used and often created by recreationists during or en route to their respective activities. This road creation is often the result of attempting to avoid lengthy walks or obstacles; therefore, there are numerous places where multiple roads lead to the same destination.

Many roads are in need of repair, closing and/or rerouting; surrounding vegetation has been trampled (or in some cases, eliminated) where excessive roads have been created. Soil and sediments may also be washed into water bodies where roads are directly adjacent to waterways and/or vehicles are too close to stream banks.

Rerouting and closing of roads will encourage recreational access and use that is more ecologically sound than current practices, and will reduce the localized impacts to native vegetation and other natural resources. Roads that are in need of repair or maintenance will provide a better, safer means of travel for those who recreate on City lands. A combination of passive and active road improvements will be prescribed depending on location, uses, and objectives. In some cases, ripping and seeding reclaimed road surfaces is recommended in order to achieve particular goals; in other cases, simply blocking access to a road is more appropriate.

LADWP will implement changes in road networks on LADWP lands that are financially feasible and can be conducted with current Department Watershed Resources and Construction personnel. These changes will be implemented on a priority basis, and will be monitored

periodically by LADWP personnel. Goals in monitoring will be to evaluate the effectiveness of the management measures. Reporting for this project will only be conducted if an alteration to management activities is required.

Status: In progress. Road closures have not yet been conducted in this area due to other LADWP staff commitments, including the implementation and monitoring of various court mandated mitigation projects.

1.0 LORP RECREATION PLAN

The recreation plan for the LORP area will continue existing guidelines for all human activity other than livestock grazing, agriculture and water diversion during the restoration of the Lower Owens River ecosystem. As recreational interest and use increases, additional guidelines and methods for effective public participation and possible conflict resolution may be required, through adaptive management strategies.

The LORP area is a widely acknowledged recreational use area where fairly unrestricted access and use has been in effect by local recreational users for half a century. Currently there is unrestricted recreational day-use, except where posted, throughout nearly all of the LORP area; recreational access even by leaseholders cannot be restricted to more than 25% of the lease holding, except for irrigated pastures.

Though access can be denied to recreational users in irrigated pastures, most leaseholders do not deny such access. A casual system has been in use for many years that asks recreational users to always use a good neighbor policy of making sure they have left gates as they find them—either open or closed—and treat agricultural, grazing and water diversion areas with respect. With few exceptions, this casual guideline has worked effectively in the LORP area for many years.

To continue to enjoy access to the LORP area for a variety of recreational activities, stakeholders do not need to substantially change their recreational habits from current uses during the restoration efforts of the LORP. Most stakeholders in the Owens Valley are willing to cooperate and to accept a possible increase in rules and regulations of use, set asides for threatened and endangered fish and wildlife species, and closures of sensitive areas during critical seasons. But during the initial two to three years of the project, changes in current rules for recreational use and access are not necessary. Currently there is only light recreational use and pressure in the LORP area; therefore, recreation management will remain relatively unchanged from current practices until, or if, increased demand and/or conflicts require increased management.

As Lower Owens River tourism and recreational use increases with the restoration of the river and increases in fish and wildlife, more rules of use and methods to enforce those rules may become necessary. But, as in all other aspects of the LORP plan, a passive approach to human use and activities is preferred. If anticipated increases in recreational activity occur, less intrusive interim actions may be more appropriate.

The intent of LADWP management is not to initially impose unwarranted recreation rules and controls at this stage, but to encourage stakeholder ownership in restoring and maintaining a natural ecosystem so that both locals and tourists can enjoy a natural outdoor environment. Management would prefer to devise and adapt practical solutions if problems and conflicts arise. Clearly, at this time, stakeholders do not want rules or actions that would restrict use or

hinder access to the LORP area. When and only if, enforcement becomes necessary, would policies and procedures be implemented in the LORP area to restrict use or hinder current access.

Existing Guidelines

The following are guidelines for recreational use in the LORP area and will remain the policies of the LADWP for recreational use.

Camping

Overnight camping is allowed only in designated campgrounds, all of which are located outside the LORP area, but within walking and or driving distance to the Lower Owens River. Designated campgrounds are developed, maintained and operated by Inyo County, and most provide fire rings or barbecues, trash disposal facilities, and rest rooms. There will be no overnight camping allowed within the Lower Owens River project area, but day-use picnicking, hiking, canoeing, fishing, hunting, and other outdoor activities that are currently enjoyed will continue unchanged from current guidelines.

Fires

To protect against wildfires and to allow for the restoration of a natural, scenic recreational area, no fires or fireworks are allowed in the LORP area. Fires are allowed only in designated campgrounds.

Off-Road Vehicles

To limit disturbance to plants and wildlife, and to minimize any further degradation to soils and landforms in the LORP area, all mechanized off-road vehicles (including motorcycles, ATV's, RV's, etc.) are restricted to existing roads that are away from residential areas. All off-road vehicle recreationists are expected to respect the concerns and needs of other recreational users; many may be using the LORP area to fish, hunt, hike, canoe, or observe birds and other wildlife. Noise and dust from off-road vehicles can be disturbing to wildlife, livestock, plants and soils. Care should be exercised to not use off-road vehicles near areas used by other recreationists seeking a natural outdoor experience away from residential and commercial noise and air problems, or in close proximity to grazing operations.

Leased Lands

Much of the LORP area will remain as lease-holdings for agricultural and livestock use, but at least 75% of leased lands will continue to remain open for recreational access and enjoyment. All lands not open to recreational use will be posted, and all recreational users are expected to respect the operational concerns and needs of lessees. All gates should be left as found, either open or closed, and care should always be taken to not negatively impact or disturb agricultural or livestock operations; particularly in the use of firearms, off-road vehicles, or recreational activities that could potentially harm or disturb livestock or their pasturage.

Fishing

Fishing on City land, whether in ponds, lakes or the Lower Owens River, will remain open to fishing enthusiasts. It is not anticipated that there will be any restricted areas in the initial re

watering of the LORP area. As the project progresses, sanctuaries may be established for T&E species—these sanctuaries will be posted. All fishing activities in the LORP area will continue to be subject to the regulations of the State of California, Department of Fish and Game. Recreationists are expected to pack out any waste or trash.

Hunting

Hunting on City land continues to be allowed except in areas that are posted. Hunting seasons for deer and game birds are under regulation of the State of California, Department of Fish and Game and will continue to be under their jurisdiction. Firearms are not to be discharged within 150 yards of occupied buildings, farm structures, livestock, public roads or highways. Careless use of firearms for target practice could cause a potentially very dangerous and damaging fire that would be detrimental to restoration of the LORP ecosystem.

Woodcutting

Woodcutting has been a casual activity in the LORP area that has continued without regulation in the past. With intense restoration efforts underway, any woodcutting should only be in carefully considered areas, and only with the permission and regulation of LADWP's Watershed Resources Manager in Bishop. Any removal of older growth willow and cottonwood could harm the seed source for restoration of riverine habitat along the newly rewatered Lower Owens River. Even careless removal of nuisance plants, like saltcedar or tules, might result in increases in these unwanted plants if cutting and removal is not carefully timed and controlled. At this time, any woodcutting or plant material removal could be potentially harmful and is prohibited in the LORP area until careful consideration can be given to resuming this activity.

Boating and Water Sports

Several ponds and lakes on City lands, inside and outside the LORP area, will continue to provide and allow swimming, boating, water skiing and camping. Within the LORP area, waterways can accommodate small non-motorized fishing boats and/or canoes. It is anticipated that the newly restored Lower Owens River will be an area to use non-motorized boats, such as canoes, rafts, kayaks, etc.

Hiking and Biking

It is anticipated that the LORP area will become a superb hiking and biking day-use area that will appeal to all recreationists who enjoy bird watching, wildlife viewing or exercise in a natural and unique ecosystem. Areas that are off-limits for hiking or biking will be posted, and, as with other outdoor recreational activities in the LORP area, it is expected that hikers and bikers will be careful to not disturb plants, build fires or leave any trash behind. Pack it in and pack it out.

Artifact-Gathering or Pot-Hunting

It is prohibited by federal law to disturb or remove any artifacts from the LORP area. This includes not only removal of American Indian artifacts, but also disturbing or removing materials from old LADWP structures, old mining artifacts, or materials from old agricultural structures.

Future Guidelines

The primary concern of recreation management in and around the LORP area is the natural ecosystem itself. Recreational activity that disturbs natural processes, the abundance or total mass of vegetation, soils, water quality, fish and wildlife habitat and diversity, or any activity that conflicts with other established recreational activities may need to be prohibited and/or regulated to certain areas and/or times of year. A sustainable recreation resource requires a healthy productive ecosystem and therefore demands recreation management as well as land and water management in order to continue to exist and provide opportunities for recreational users.

Recreation management is an on-going process with the primary goal of protecting the ecosystem and minimizing user conflicts. LADWP will adaptively manage recreational use of the LORP.

LADWP Water Gathering Facilities and Activities

Activities

Authorized Work Period	Dams	Measuring Stations and Flumes	Diversion Structures	Sand Traps	Spill Gates	Culverts	Mowing	Slushing	Burning	Removing Spot Obstructions from Man-made Waterways	Cleaning Man-made Waterways	Removing Spot Obstructions from Perennial Streams and Intermittent Streams and Washes	Preparing Waterways for High Seasonal Flows and Water Flow Management	Replacing, Maintaining, and/or Removing Existing Facilities on Intermittent Waterways	Replacing, Maintaining, and/or Removing Existing Facilities on Perennial Waterways	LORP Seasonal Habitat Flow Preparation and Management	Additional Authorizations
Dams																	
Grant Reservoir	Year Round	X															
Crowley Reservoir/Long Valley Dam	Year Round	X															
Pleasant Valley Reservoir/Power Plant	Year Round	X															
Tinnemaha Reservoir	Year Round	X															
Haiwee Reservoir Complex/Power Plant	Year Round	X															
1. INTERMITTENT MAN-MADE WATERWAYS																	
INDEPENDENCE DISTRICT WATERS																	
Alabama Gates Spill Return to the River East and South	During Dry Conditions			X	X		X			X	X			X	X		X
Blackrock Diversions	Feb 1-Oct 15 or in dry conditions	X	X				X			X	X			X	X		X
Diaz Diversions, A & B																	
Outlet Diversions	Year Round	X					X			X	X			X			
Diaz Siphon Spillgate	Year Round	X			X		X			X	X			X			
Independence Creek Diversions																	
Diversions 1,2,& 3 -	Year Round	X	X				X			X	X			X			
LAA Diversions																	
Thibaut South Diversion	Year Round	X	X		X		X			X	X			X			
Thibaut East Diversion	Year Round	X	X		X		X			X	X			X			
Russell Spillgate Diversion	Year Round	X	X		X		X			X	X			X			
Dean Spillgate Diversion	Year Round	X	X		X		X			X	X			X			
Georges Spillgate Diversion	Year Round	X	X		X		X			X	X			X			
Indian/Spainhower Spillgate Diversion	Year Round	X	X		X		X			X	X			X			
Locust Ditch South and Locust Return to River	Year Round	X	X	X	X		X			X	X			X	X		X
Locust Spillgate (South and East Div)	Year Round	X	X	X	X		X			X	X			X			
Lone Pine Creek Diversions																	
Overheads (OH) 8, 10, 12, 14, 20 Div	Year Round	X	X		X		X			X	X			X			
Overhead 19 Sandtrap	Year Round	X	X				X			X				X			
Lone Pine Golf Course Ditch	Year Round	X	X				X			X	X						
Oak Creek Diversions																	
Kemp & Bright Diversion	Year Round	X	X	X			X			X	X			X			
Reinhackle Ditch (north of spring and south to HWY 395)	Year Round	X	X	X			X			X	X			X	X		
Stevens Ditch	Year Round	X	X	X			X			X	X			X	X		
Taboose Creek Diversion																	
Diversion 7 & 9	Year Round	X	X				X			X	X			X	X		8B. Replacement Perennial authorized during low flow conditions
Tuttle Creek Diversions																	
OH 23, 24, 25, 26, 27 Diversions	Year Round	X	X		X		X			X	X			X	X		8B. Replacement Perennial authorized during low flow conditions
Well 349 Impoundment and Ditch	Year Round	X	X	X			X			X	X			X	X		
Ditches Below Spreading Diversion Structures on all creeks	Year Round	X	X				X			X				X			
Well Ditches	Year Round	X	X	X	X		X			X	X			X	X		
Alabama Gates Drain Ditch A, B, C	Year Round	X	X	X	X		X			X	X			X	X		
Blackrock Hatchery Diversion/Siphon	Year Round	X	X	X						X				X			

Hines Spring Well 355 Ditch	Year Round	X	X			X		X	X					X			
Homestead Project Ditches	Year Round	X	X			X		X	X					X			
BISHOP DISTRICT WATERS																	
4X Ditch	Year Round	X	X			X		X						X			
4H Ditch	Year Round	X	X			X		X						X			
A-1 Drain	Sept 1 - Apr 15	X	X			X		X						X			
B-3 Ditch	Year Round	X	X			X		X						X			
Baker Creek Diversions																	
1, 2, 3, 4, C1, C2, Baker Ranch 1	Year Round	X	X	X		X		X						X			
Baker Creek Return	Year Round	X		X		X		X						X			
Baker Creek Bypass	Year Round			X	X			X						X			
Bell Canyon Ditch	Year Round			X				X						X			
Big Pine Canal Diversions	Year Round	X	X			X		X						X			
1, 15, 16, 17, 18, 19, 30, 31, 33, 34, 35, 36, 37, 38																	
Warren Lake	Year Round	X	X			X		X	X					X			
Big Pine Canal																	
Big Pine Creek to Fish Springs	Year Round	X	X	X		X	X	X	X					X			
Bishop Creek Canal Diversions	Year Round	X	X			X		X						X			
2, 4, 5, 5B,6 ,9, 11, 16, 17, 18, 19, 19A, 20, 21, 22, 24, 25, 26, 27, 28, 29, & 30																	
C1 Ditch (Round Valley)	Feb 1-Oct 15	X	X			X		X						X			
C-1 Return Ditch (Round Valley)	Feb 1-Oct 15	X	X			X		X						X			
C-3 Return (Round Valley)	Feb 1-Oct 15	X	X			X		X						X			
Cement Ditch	Year Round	X	X			X		X						X			
Cemetery Ditch	Feb 1-Oct 15	X	X			X		X						X			
Cesprino Ditch	Year Round	X	X			X		X						X			
Convict Creek Diversions	Year Round	X	X			X		X						X			
3, 23, 25, 26, 27, & Eaton																	
Dairy Ditch	Year Round	X	X			X		X						X			
Duggan Ditch	Year Round	X	X			X		X						X			
F-10 Ditch	Year Round	X	X			X		X						X			
Farmer's Ditch	Year Round	X	X			X		X						X			
Ford Rawson Canal	Year Round	X	X	X		X	X	X	X					X			
All Diversions, including Alfalfa Diversion																	
George Collins Canal	Year Round			X		X		X	X					X			
George Ditch (Bishop)	Feb 1-Oct 15	X	X			X		X						X			
George Ditch (Big Pine)	Feb 1-Oct 15	X	X			X		X						X			
Gibbs Creek Diversions	Year Round	X	X			X		X						X			
Farrington Diversion																	
Horse Meadows Diversion																	
Gibbs Diversion																	
Giraud Ditch	Year Round	X	X			X		X						X			
Giroux Ditch (Big Pine)	Year Round	X	X			X		X						X			
Giroux Ditch (Bishop)	Year Round	X	X			X		X						X			
Grant Reservoir Spillway Flume	Year Round	X			X			X	X					X			
I - 1 Ditch	Year Round	X	X			X		X	X					X			
I - 2 Ditch	Year Round	X	X			X		X	X					X			
Hall Ditch	Feb 1-Oct 15	X	X			X		X						X			
Harry Matlick Ditch	Year Round	X	X			X		X						X			
Hession Ditch	Year Round		X			X		X						X			
Hilton Creek West Branch Diversion	Year Round	X	X			X		X						X			
Horton Creek Diversions	Year Round	X	X			X		X						X			
Moore Cabin, Forks, E1A, E1B, E2, E3, E4, E5A, E5B, E5C, E6& E7																	
Hot Creek Diversions	Year Round	X	X			X		X						X			
Indian Ditch	Year Round	X	X	X		X		X						X			
Indian B, C, & D Ditches	Year Round	X	X			X		X						X			
Indian (North)	Feb 1-Oct 15	X	X			X		X						X			
Indian (South)	Feb 1-Oct 15	X	X			X		X						X			
Indian Ditch (Big Pine)	Year Round	X	X			X		X						X			
Kingsley Ditch	Feb 1-Oct 15	X	X			X		X						X			
Klondike Lake Return	Year Round	X	X			X		X						X			
Knight Diversion Ditch	Year Round	X	X			X		X						X			
Laurel Creek	Year Round	X	X			X		X						X			
Laws Waste	Year Round	X	X			X		X						X			
Lee Vining Creek Diversion	Year Round	X	X			X		X						X			
"O" Ditch																	
Lyman Ditch	Year Round	X	X			X		X						X			
Maciver Ditch	Feb 1-Oct 15	X	X			X		X						X			
Maciver Return Ditch	Feb 1-Oct 15	X	X			X		X						X			
Mammoth Creek Diversions	Year Round	X	X			X		X						X			
Mason Ditch	Year Round	X	X			X		X						X			
Matlick Return Ditch	Year Round	X	X			X		X						X			
McGee Creek Diversions	Year Round	X	X			X		X						X			

McNally (Upper) Canal & Diversions	Year Round	X	X				X	X	X	X	X							X	
McNally (Lower) Canal & Diversions	Year Round	X	X				X	X	X	X	X							X	
Mendenhall Ditch	Year Round	X	X	X			X			X								X	
Mikey's Slough	Year Round	X	X	X	X		X			X	X							X	X
Mill Creek Diversions D1A, D2, D4, D5, D6, & D7	Year Round	X	X				X			X								X	
Nelligan Ditch	Year Round	X	X				X			X								X	
Newlon Ditch	Year Round	X	X				X			X								X	
Noble Ditch	Year Round	X	X				X			X								X	
Noren Ditch	Year Round	X	X	X			X			X								X	
O.A. Collins Canal	Year Round		X				X			X								X	
Orcier Ditch	Year Round	X	X				X			X								X	
Otey Ditch	Year Round	X	X				X			X								X	
Owens River Canal	Year Round	X	X	X	X		X			X	X							X	X
Owens River Diversion #17	Year Round	X	X				X			X								X	
Paiute Creek	Year Round	X	X				X			X								X	
Parker Creek Diversions 1, 2, & 3	Year Round	X	X				X			X								X	
Pine Creek Diversions Diversion 49, Diversion 49 Return, 40 acre Diversion, B1, C5, C6, & C8	Year Round	X	X				X			X								X	
Production Well Conveyance Ditches	Year Round	X	X				X			X								X	
Rawson Canal (below Duck Pond)	Year Round	X	X	X	X		X			X								X	X
Red Hill Ditch	Year Round	X	X				X			X								X	
Red Mountain Creek Diversions #1 & 2	Year Round	X	X				X			X								X	
Rock Creek Bypass Ditch	Year Round	X	X	X			X			X								X	
Rock Creek Diversions Little Round Valley # 1 & 2, Diversions 1, 2, 39, 40	During Low Flow Conditions	X	X	X			X			X								X	
Saddle Club Ditch	Year Round	X	X				X			X								X	
Sanchez Spring #17B	Year Round	X					X			X								X	
Schildor Return (West side of Brockman)	Year Round	X	X				X			X								X	
Sanger Ditch	Year Round		X				X			X								X	
Sierra Street Ditch	Year Round		X															X	
Silver Canyon Creek Ditch (downstream of upper flume)	Year Round	X	X	X			X	X	X									X	
Stewart Ditch	Year Round	X	X				X			X								X	
Tatum Return Ditch	Year Round	X	X				X			X								X	
Thompson Main	Year Round	X	X				X			X								X	
Thompson (Upper)	Year Round	X	X				X			X								X	
Tinnemaha Creek Diversions #1 & 2	Year Round	X	X				X			X								X	
Tom Key Ditch	Year Round	X	X				X			X								X	
Tommy Smith Ditch	Year Round	X	X				X			X								X	
Tule Elk Ditch	Year Round	X	X				X			X								X	
Wonacott Ditch	Year Round	X	X				X			X								X	
Yaney Ditch	Year Round	X	X				X			X								X	
Yaney Return Ditch	Year Round	X	X				X			X								X	
Young Ditch	Year Round	X	X				X			X								X	

2. INTERMITTENT STREAMS AND WASHES

BISHOP DISTRICT WATERS

Birch Creek (Big Pine)	Mar 15-Oct 15	X	X				X			X								X	
Bohler Creek	Mar 15-Oct 15	X	X				X			X								X	

INDEPENDENCE DISTRICT WATERS

Ash Creek	Mar 15-Oct 15	X	X	X			X			X								X	
Bairs Creek (North & South)	Mar 15-Oct 15	X	X	X			X			X								X	
Braley Creek	Mar 15-Oct 15	X	X	X			X			X								X	
Cartago Creek	Mar 15-Oct 15	X	X	X			X			X								X	
Cottonwood Creek	Mar 15-Oct 15	X	X	X			X			X								X	
Haiwee Canyon Creek	Mar 15-Oct 15	X	X	X			X			X								X	
Hogback Creek	Mar 15-Oct 15	X	X	X			X			X								X	
Loco Creek	Mar 15-Oct 15	X	X	X			X			X								X	
Red Mountain Creek	Mar 15-Oct 15	X	X	X			X			X								X	
Richter Creek	Year Round	X	X	X	X		X			X	X							X	X
Symmes Creek	Mar 15-Oct 15	X	X	X			X			X								X	
Talus Creek	Year Round	X	X	X			X			X								X	
Thibaut Creek	Mar 15-Oct 15	X	X	X			X			X								X	

3. PERENNIAL CANALS

