Owens Valley Environmental Mitigation Projects

LADWP Aqueduct Section | Bishop, California
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LA DWP

Introduction

The Los Angeles Department of Water and Power (LADWP) has had a rich history in California's Owens Valley for more than a century. Southern California was growing at a breakneck pace in the early 1900s. LADWP constructed the First Los Angeles Aqueduct in 1913 to provide the majority of the City of Los Angeles's municipal water use. In 1941, LADWP expanded the aqueduct an additional 105 miles to the north, and to further support population growth in Los Angeles, LADWP constructed and began operating the Second Los Angeles Aqueduct in 1970, increasing surface and groundwater operations in the Mono Basin and Owens Valley. As a result, a number of environmental impacts occurred in the Owens Valley, primarily in the way of vegetation and air quality impacts.

In 1991, the County of Inyo (County) and LADWP finalized the *1991 Environmental Impact Report on Water From the Owens Valley to Supply the Second Los Angeles Aqueduct* (1991 EIR) and enacted the *Agreement Between the County of Inyo and the City of Los Angeles and Its Department of Water and Power on a Long Term Groundwater Management Plan for Owens Valley and Inyo County* (Inyo/Los Angeles Water Agreement). These guiding documents establish mitigation requirements for environmental impacts, and also provide a road map for managing the City's water in the Eastern Sierra. Over the years, LADWP has shifted its operations, leaving more water in the region for environmental efforts. Since implementation of the Water Agreement, which does allow for continued exports from the region, exports have been reduced by about half and 64 enhancement and mitigation projects are either complete or underway.

Today, LADWP directly employs nearly 350 people to operate a number of key facilities involved in delivering water and power safely to the City of Los Angeles. LADWP continues to be stewards of nearly 315,000 acres of land throughout Inyo and Mono Counties and abides by a long-held policy of making the land publicly available. LADWP's Water Operations Northern Aqueduct Division and Watershed Resources group is dedicated to the management of this land, and of the plants and wildlife that reside upon it. Ultimately, their goal is to fulfill LADWP's Water System's mission, which is:

> *"to support the vitality and sustainability of the city, providing our customers and the communities we serve with reliable, high quality and competitively priced water services in a safe, publicly and environmentally responsible manner."*

This report on LADWP's Owens Valley Environmental Mitigation Projects and Other Legal Commitments was prepared by LADWP Watershed Resources and Water Operations Staff in August 2021. This document was compiled to provide a comprehensive assessment of environmental mitigation and other work that has been completed by LADWP in the Owens Valley, and to describe the current status of these efforts.

This report outlines the legal framework, project goals, progress, water commitment (if relevant), and current status of each of the 64 on-the-ground mitigation projects required under the 1991 EIR, a subsequent 1997 Memorandum of Understanding between the City of Los Angeles Department of Water and Power, the County of Inyo, California Department of Fish and Game, the California State Lands Commission, the Sierra Club, and the Owens Valley Committee (1997 MOU), and related documents. It also describes the 49 other legal commitments pursuant to the Inyo/Los Angeles Water Agreement and the documents listed above.

Tables 1 and 2 provide a quick reference guide to all of these mitigation projects and other obligations and were jointly developed by the Inyo/Los Angeles Technical Group. These tables were presented to the Inyo/Los Angeles Standing Committee on October 15, 2020 during a presentation by LADWP on the City's mitigation efforts. At that time, the County and City agreed on the status of all but 2 of the 64 mitigation projects, and all but 2 of the 49 other obligations.

LADWP Environmental Mitigation Projects

The projects are listed alphabetically in Table 1. For reference, status of these projects is classified into the following categories:

Complete: Project has no additional commitments required (no water allotment or other financial or environmental mitigation; no continual monitoring and reporting),

Ongoing as necessary/required: These measures are only applied when necessary (monitoring and reporting for mitigation measures for new projects, construction, etc.),

Implemented and ongoing: Project is fully implemented and is currently meeting goals; however, there may be ongoing water or financial commitments or monitoring and reporting requirements,

Fully implemented but not meeting goals: Project is fully implemented but has not fully met prescribed goals or success criteria,

Not fully implemented: Project is under development or under construction, but not fully implemented.

Presently, of the 64 required environmental mitigation projects, LADWP reports:

- 8 are complete,
- 43 are implemented and ongoing (with ongoing water or financial commitments or monitoring and reporting requirements),
- 13 are fully implemented but not fully meeting goals,
- 0 are not fully implemented

Following Table 1, general reference maps are provided for north, central, and southern regions of the Owens Valley. (Maps specific to each project are found in Appendix 1.) Each project is then described in length, providing legal reference, goals, progress, water commitment (if relevant) and current status. 100% of these projects have been fully implemented, and 80% have or are meeting prescribed goals. Only 20% of the projects have not met all goals; these are primarily native revegetation projects that rely on a time component to achieve the project objectives. LADWP remains confident that all projects will meet specified goals.

To date, LADWP has spent over **$143,200,000** implementing, operating, and maintaining these 64 mitigation projects in the Owens Valley to comply with the City's legal commitments. This figure includes capital and operations and maintenance costs associated with the projects as well as other financial payments (if relevant). This figure does not include the cost of water committed to these projects.

These 64 projects commit an average of **38,000 acre feet** of water per year (AFY) (12,380,000,000 gallons) of the City's water supply per existing legal agreements. This equates to approximately **$38,000,000** in annual costs for water for these projects (calculated using $1000 per acre foot for Tier 1 treated water).

LADWP Other Legal Commitments

Table 2 provides a list, reference, and current status of LADWP's other commitments under the guiding documents listed above. Of the 49 other commitments required by these guiding documents, LADWP currently reports:

- 18 are complete,
- 6 are ongoing as necessary or required,
- 23 are implemented and ongoing,
- 0 are fully implemented and not meeting goals, and
- 2 are not fully implemented *(new wells and production capacity as allowed by the Water Agreement, and the Owens River Recreational Use Plan, an Inyo County Commitment)*

As of October 2020, LADWP has spent **$128,200,000** in fulfilling its financial and other commitments under the Inyo/Los Angeles Water Agreement and related documents. This includes over $115,000,000 in financial assistance to the County and local communities for upgrades to local water systems, park rehabilitation, campground development, facility maintenance, and other water and environmental activities, in addition to funding the County Salt Cedar Eradication program. These financial contributions are in addition to the mitigation projects themselves.

LADWP continues to invest in ongoing environmental restoration projects in the region that have helped restore stream flows, revive vegetation and help to recreate a healthy environment for wildlife habitats to thrive. The total estimated cost of all of these efforts is over **$272,000,000** to date. In addition to this $272,000,000, LADWP provides a volume of water to these projects valued at approximately **$38,000,000 annually**.

Table 1.
LADWP MITIGATION PROJECT COMMITMENTS

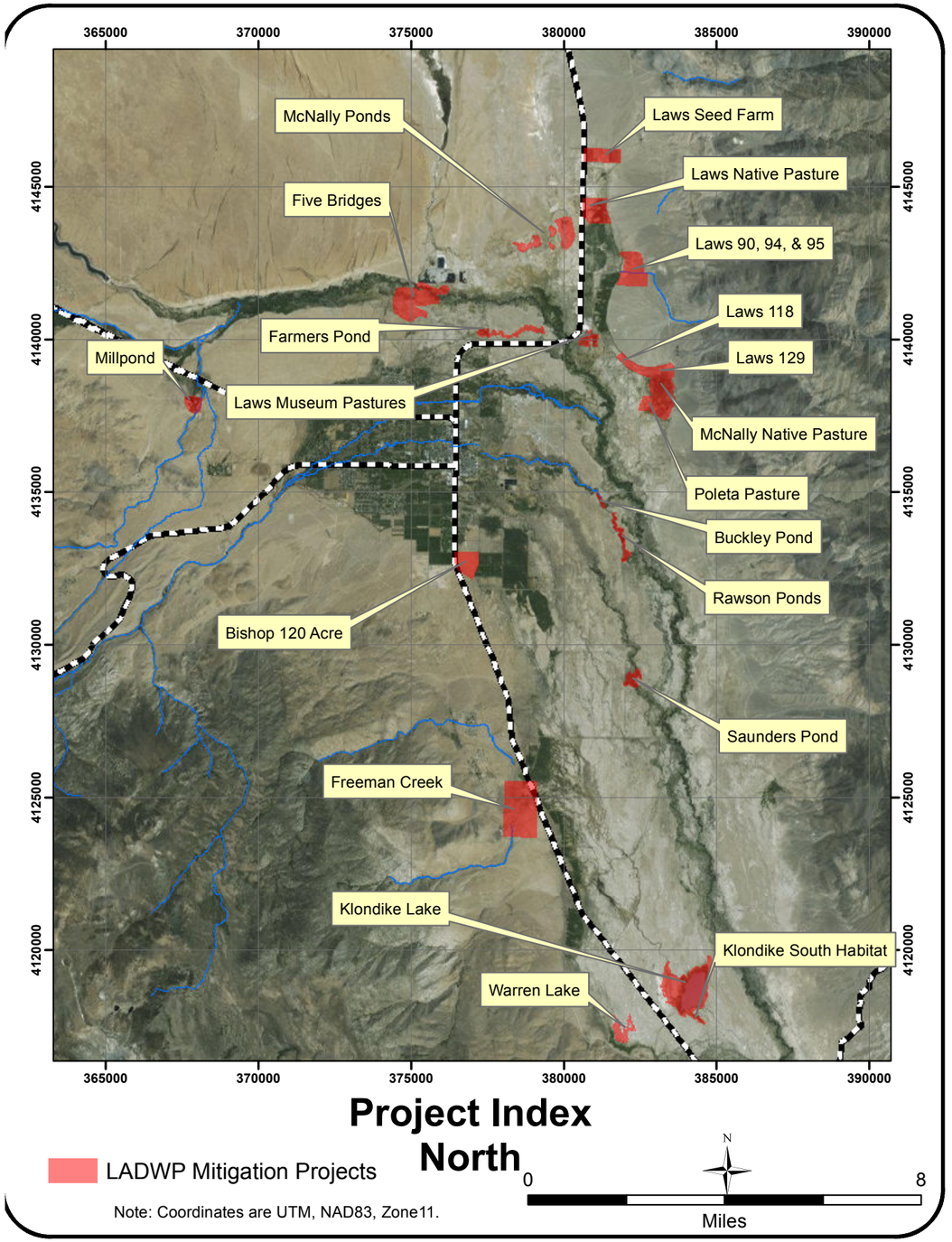
1991 EIR	1991 EIR Environmental Project	1991 EIR Enhancement Mitigation Project	Revegetation Project	1997 MOU		Complete	Ongoing as necessary/ required	Implemented and Ongoing	Fully Implemented but not meeting goals	Not fully implemented
				X	Aberdeen Ditch Project (Additional Mitigation Projects Developed by the MOU Ad Hoc Group (MOU Section III.A.3))			X		
X	X				Big and Little Seely Springs (1 acre pond near Well W349; EIR Impact 10-14, EIR Table 5-2)			X		
X			X		Big Pine Area Revegetation Project (160 acres; EIR Impact 10-19)				X	
X			X		Big Pine Area Revegetation Project (20 acres; EIR Impact 10-19)				X	
X					Big Pine Ditch System (EIR Impact 10-19)			X		
X		X	X		Big Pine Northeast Regreening (30 acres; EIR Impact 10-11, EIR Table 5-3)			X		
X			X		Bishop Area Revegetation Project (124 acres; EIR Impact 10-16)				X	
X			X		Blackrock 16E Revegetation Project (EIR Impact 10-11)	X				
X	X				Blackrock Hatchery (EIR Impact 10-14)			X		
X	X				Buckley Ponds (EIR Impact 10-5 and 11-1, EIR Table 5-2)			X		
X	X				Calvert Slough (EIR Impact 10-5, EIR Table 5-2)			X		
X	X			X	Diaz Lake (EIR Table 5-2, Additional Mitigation Projects Developed by the MOU Ad Hoc Group (MOU Section III.A.3))			X		
X		X			Eastern California Museum (EIR Tables 4-3 and 5-3)			X		
X	X				Farmers Pond (EIR Impact 10-5, 10-18, 11-1, EIR Table 5-2)			X		
X	X				Fish Springs Hatchery (EIR Impact 10-14)			X		
X			X		Five Bridges Area Revegetation Project (300 acres; EIR Impact 10-12)	X				
				X	Freeman Creek Project (Additional Mitigation Projects Developed by the MOU Ad Hoc Group (MOU Section III.A.3))			X		
X				X	Hines Spring (1 to 2 acres, EIR Impact 10-14), implemented as the Additional Mitigation Projects Developed by the MOU Ad Hoc Group (MOU Section III.A.3)			X		
X			X		Hines Spring South (EIR Impact 10-11)				X	
				X	Hines Spring Well 355 Project (Additional Mitigation Projects Developed by the MOU Ad Hoc Group (MOU Section III.A.3))			X		
				X	Homestead Project (Additional Mitigation Projects Developed by the MOU Ad Hoc Group (MOU Section III.A.3))			X		
X			X		Independence 105 (EIR Impact 10-13)	X				
X			X		Independence 123 (EIR Impact 10-13)	X				
X			X		Independence 131 (EIR Impact 10-13)				X	
X		X			Independence Ditch System (EIR Table 4-3)			X		

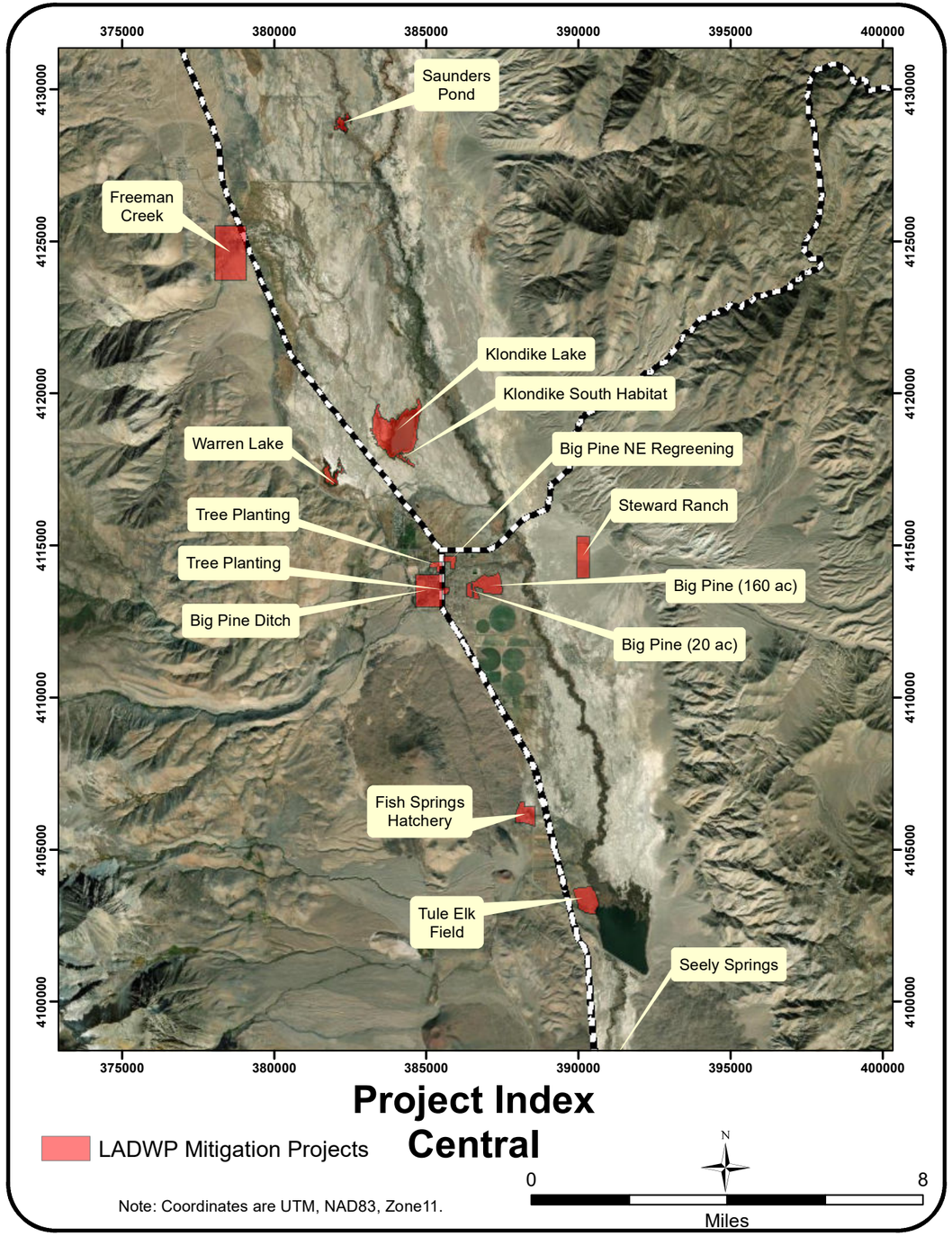
1991 EIR	1991 EIR Environmental Project	1991 EIR Enhancement Mitigation Project	Revegetation Project	1997 MOU	Table 1. LADWP MITIGATION PROJECT COMMITMENTS	Complete	Ongoing as necessary/ required	Implemented and Ongoing	Fully Implemented but not meeting goals	Not fully implemented
X		X			Independence East Side Regreening Project (23 acres; EIR Impact 10-11, EIR Table 5-3)			X		
X		X			Independence Pasturelands and Native Pasturelands (610 acres; EIR Impact 12-1, EIR Tables 4-3 and 5-3)			X		
X		X			Independence Roadside Rest Area (0.5 acres; EIR Tables 4-3 and 5-3)			X		
X		X			Independence Springfield (286 acres; EIR Impact 12-1, EIR Tables 4-3 and 5-3)			X		
X		X			Independence Woodlot (20 acres; EIR Impact 10-11, EIR Table 4-3)			X		
X	X	X			Klondike Lake Aquatic Habitat (160 acres; EIR Impact 10-5 and 11-1, EIR Tables 4-3, 5-2, and 5-3)			X		
					Klondike SSHA (Big Pine Ditch System MND)			X		
			X		LAWS 118 (19 acre portion) (Laws Type E Transfer MND)				X	
			X		LAWS 129 (Laws Type E Transfer MND)				X	
			X		LAWS 27 (Native Seed Farm) (Laws Type E Transfer MND)				X	
			X		LAWS 90 (Laws Type E Transfer MND)				X	
			X		LAWS 94 (Laws Type E Transfer MND)				X	
			X		LAWS 95 (Laws Type E Transfer MND)				X	
X			X		Laws Area Revegetation Project (140 acres; EIR Impact 10-18)				X	
X		X			Laws Historical Museum Pasturelands (21+15 acres; EIR Impact 10-18, EIR Table 5-3)			X		
X		X			Laws/Poleta Native Pasture (216 acres; EIR Impact 10-16, EIR Tables 4-3 and 5-3)			X		
X	X				Little Blackrock Springs (EIR Impact 10-14, EIR Table 5-2)			X		
X		X			Lone Pine East Side Regreening (11 acres; EIR Impact 10-16, EIR Table 5-3)			X		
X		X			Lone Pine-North Lone Pine Clean Up (EIR Table 4-3)	X				
X		X			Lone Pine Riparian Park (320 acres, EIR Tables 4-3 and 5-3)			X		
X		X			Lone Pine Sports Complex (EIR Table 5-3)	X				
X		X			Lone Pine West Side Regreening (8 acres; EIR Impact 10-16, EIR Tables 4-3 and 5-3)			X		
X		X			Lone Pine Woodlot (12 acres; EIR Impact 10-11, EIR Table 4-3)			X		
X	X	X		X	LORP Project (60 miles, perhaps more than 1,000 acres)/ Lower Owens Rewatering Project)			X		
X		X			McNally Ponds and Native Pasturelands (300 acres pasture, 60 acres ponds; EIR Impact 10-5 and 10-18, EIR Tables 4-3, 5-3)			X		
X	X	X			Millpond Recreation Area (EIR Impact 10-5, EIR Table 5-2 and 5-3)			X		
				X	North of Mazourka Canyon Road Project (Additional Mitigation Projects Developed by the MOU Ad Hoc Group (MOU Section III.A.3))			X		
X					Reinhackle Spring (EIR Impact 10-14)			X		
X		X			Richards Fields (160 acres; EIR Impact 10-16, EIR Table 4-3)			X		
X	X				Saunders Pond (EIR Impact 10-5, EIR Table 5-2)			X		
X		X			Shepherd Creek Alfalfa Field (198 acres; EIR Impact 10-11, EIR Tables 4-3 and 5-3)			X		
X		X			Shepherd Creek Potential (60 acres; EIR Impact 10-11, EIR Table 5-3)	X				
X					Steward Ranch (EIR Impact 9-14)			X		
X			X		Tinemaha 54 Revegetation Project (EIR Impact 10-11)				X	
X		X			Tree Planting along Roadways (EIR Table 4-3)	X				
X	X				Tule Elk Field (EIR Table 5-2)			X		
X		X			Van Norman Fields (170 acres; EIR Impact 10-16, EIR Table 4-3)			X		
				X	Warren Lake Project (Additional Mitigation Projects Developed by the MOU Ad Hoc Group (MOU Section III.A.3))			X		
				X	Well 368 Project (Additional Mitigation Projects Developed by the MOU Ad Hoc Group (MOU Section III.A.3))			X		
						8	0	43	13	0

Table 2.
LADWP OTHER LEGAL COMMITMENTS

Water Agreement	1991 EIR	1991 EIR E/M Project	Revegetation Project or Other Agreement	1997 MOU		Completed	Ongoing as Necessary and Required	Implemented and Ongoing	Fully Implemented But Not Meeting Goals	Not Fully Implemented
				X	Aerial Photo Analysis (MOU Section III.E)	X				
				X	Annual Report on the Owens Valley (MOU Section III.H)			X		
			X		Blackrock 94 Burns (2014 Stipulation)	X				
X					Cooperative Studies (Water Agreement Section IX)			X		
X					Dispute Resolution (Water Agreement Section XXVI)		X			
				X	Dispute Resolution and Litigation (MOU Section VI)		X			
X					Enhancement/ Mitigation Projects (Water Agreement Section X)			X		
X					Exchange of Information and Access (Water Agreement Section XVII)			X		
X					Financial Assistance- Big Pine Ditch System (Agreement Section XIV.E)			X		
X					Financial Assistance- General Financial Assistance to the County (Water Agreement Section XIV.D)			X		
X					Financial Assistance- Park & Environmental Assistance to City of Bishop (Water Agreement Section XIV.F)			X		
X					Financial Assistance- Park Rehabilitation, Development, & Maintenance (Water Agreement Section XIV.B)			X		
X					Financial Assistance- Salt Cedar Control (Water Agreement Section XIV.A)			X		
X					Financial Assistance- Water and Environmental Activities (Water Agreement Section XIV)			X		
				X	Financial Provisions (MOU Section IX)	X				
				X	Fish Slough (MOU Section IV)			X		
X					Groundwater Management (Water Agreement Section II)			X		
X					Groundwater Pumping on the Bishop Cone (Water Agreement Section VII)			X		
X					Groundwater Recharge Facilities (Water Agreement Section VIII)		X			
				X	Habitat Conservation Plan (MOU Section III.B)	X				
X					Haiwee Reservoir (Water Agreement Section XIII)	X				
				X	Inventory of Plants and Animals at Spring and Seeps (outside LORP Planning Area) (MOU Section III.C)	X				
	X				Laws Area Potential Mitigation-Consideration by Standing Committee (640 acres; EIR Impact 10-18)		X			
X					Legislative Coordination (Water Agreement Section XVI)			X		
				X	LORP Agency Consultation and Public Involvement (MOU Section II.D)	X				
				X	LORP EIR (MOU Section II.F)	X				
				X	LORP Implementation (MOU Section II.H)	X				
				X	LORP Monitoring and Adaptive Management Plan (MOU Section II.E)			X		
				X	LORP Permits Approvals and Licenses (MOU Section II.I)	X				
				X	LORP Plan (MOU Section II.A)	X				
				X	LORP Planning Area- Inventory of Plants and Animals at Spring and Seeps (MOU Section III.A.2)	X				
				X	LORP Pumpback System (MOU Section II.G)	X				
				X	Lower Owens Off River Lakes and Ponds (MOU Section II.C.3)			X		
X					Lower Owens River (financial commitment) (Water Agreement Section XII)			X		
				X	Lower Owens River Delta Habitat Area (MOU Section II.C.2)			X		
				X	Lower Owens River Project 1500-Acre Blackrock Waterfowl Habitat Area (MOU II.C.4)			X		
				X	Lower Owens River Riverine- Riparian System (MOU Section II.C.1)			X		
				X	Mitigation Plans for Impacts Identified in the 1991 EIR and the Water Agreement (MOU III.F)			X		
X					New Wells & Production Capacity (Water Agreement Section VI)					X
X					Owens River Recreational Use Plan (Water Agreement XV.B)					X
				X	Owens Valley Land Management Plans (MOU Section III.B)			X		
X					Release of City Owned Lands - Lands for Public Purposes (Water Agreement Section XV.D)		X			
X					Release of City Owned Lands- Bishop (Water Agreement Section XV.B)	X				
X					Release of City Owned Lands- Inyo County (Water Agreement Section XV.A)	X				
X					Release of City-owned lands- Additional Sales (Water Agreement Section XV.C)	X				
				X	Technical Group Meetings (MOU Section III.G)		X			
X					Town Water Systems (Water Agreement Section XI)	X				
				X	Type E Vegetation Inventory (MOU Section III.D)	X				
				X	Yellow-billed Cuckoo Habitat (MOU Section III.A.1)			X		
						18	6	23	0	2

LADWP ENVIRONMENTAL MITIGATION PROJECTS



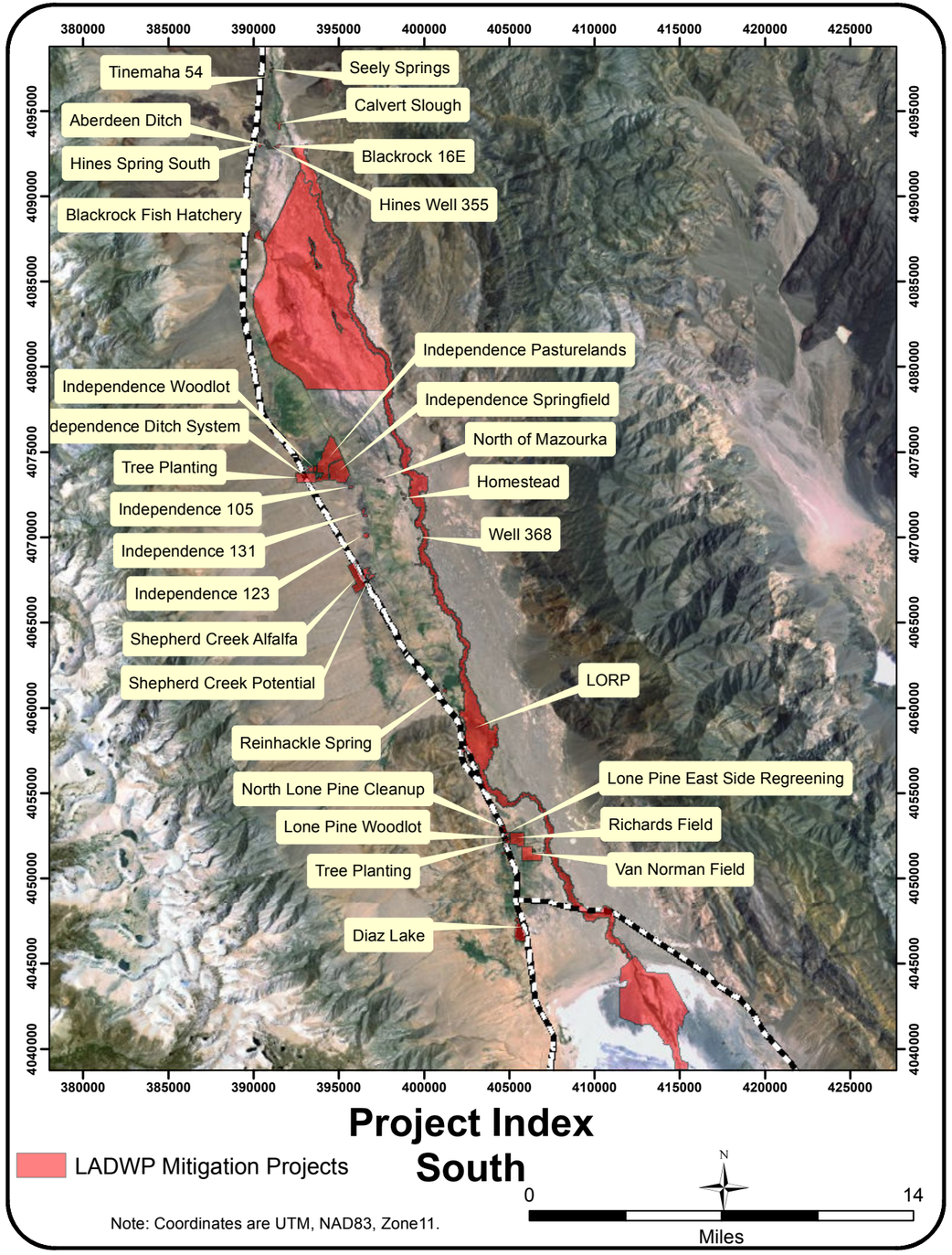


Project Index Central

LADWP Mitigation Projects

Note: Coordinates are UTM, NAD83, Zone11.

0 8 Miles



Project Index South

LADWP Mitigation Projects

Note: Coordinates are UTM, NAD83, Zone11.

0 14 Miles

1 Aberdeen Ditch Project

Legal Reference: Additional Mitigation Projects Developed by the MOU Ad Hoc Group (MOU Section III.A.3), Second Amendment of Amended Stipulation and Order S1CVCV01-29768.

Project Goal:

The goals of this project are to develop riparian, aquatic, and spring habitats, along with sub-irrigation of pasture/meadow as described in the Hines Spring Well 355 project (Additional Mitigation Projects Developed by the MOU Ad Hoc Group (2008), further referred to as the Additional Mitigation Projects document).

Progress to Date:

LADWP produced and released an Initial Study (IS) and Mitigated Negative Declaration (MND) for the Additional Mitigation Projects for public review March 23-April 26, 2010. The Notice of Determination for the projects was filed June 1, 2010.

All construction required to implement and operate the project as proposed was completed by April 2011. During implementation, LADWP constructed a concrete diversion with a fish barrier and installed the necessary pipeline. Water was released to the project in April 2011, so met the court ordered deadline of March 2012 per the Second Amendment of Amended Stipulation and Order S1CVCV01-29768.

Total acre feet supplied to the project since its implementation is summarized below. Surface water was scarce during drought years (2014-2016) and LADWP has to supply multiple projects with this water from the same source (Aberdeen Ditch Project, fishery flows to the aqueduct in Aberdeen Ditch and to Blackrock Fish Hatchery). To date, there has not been enough surface water available to provide the full surface water allotment (145 AF) to the project as described in the Additional Mitigation Projects document.

Year	Aberdeen Ditch Project Total Acre Feet (AF) Supplied
Project Target	**145**
2012-2013	86
2013-2014	105
2014-2015	64
2015-2016	76
2016-2017	115
2017-2018	121
2018-2019	95
2019-2020	103
2020-2021	103
Average	**96**

Since implementation, LADWP has experienced numerous sinkholes in the historic spring channel and has filled these sinkholes with Bentonite clay and extended the pipeline overground several times to convey water to a different location downstream. All of these attempts have failed. The overland pipe has become disconnected and has been repaired multiple times. It is currently disjointed again, yet releasing water in two locations. Despite all of these setbacks, water continues to flow to the project and the site is benefitting from irrigation from the two locations. Native grasses (creeping wildrye) dominate the spring channel and willows have naturally recruited in the south 1/3 of the spring channel north of Goodale Road. This site incurs winter grazing from horses and mules. Following initial implementation of the project, a small exclosure was constructed in the spring channel to monitor native woody recruitment that occurs with and without the influence of grazing. As of October 2020, there is no recruitment within the small exclosure and notable willow recruitment in the spring channel just adjacent to, and downstream of, the exclosure (see photos). Additional planting or seeding throughout the area is not necessary as recruitment of desirable species is occurring at the project site. However, Bassia and tumbleweeds are also present onsite, and perennial pepperweed is not in the spring channel but nearby. Pepperweed will continue to be monitored and treated as necessary.

Five Year Evaluation:

LADWP completed the required 5-year evaluation of the Additional Mitigation Projects in 2017. The evaluation was provided to the MOU Parties and the public as part of LADWP's 2017 Annual Owens Valley Report. In this evaluation, LADWP recommended discontinuing much of the annual photo point and other vegetation monitoring and mapping 5 years post implementation. Monthly flow monitoring will continue as well as periodic monitoring and treatment of invasive species. This information will continue to be provided in LADWP's annual report. No comments were received from any of the MOU Parties regarding the evaluation or proposed changes to project monitoring.

Project Photos:

Aberdeen Ditch, July 2013
Extended Pipe Outfall

Aberdeen Ditch, July 2016
Extended Pipe Outfall

Aberdeen Ditch, July 2011
Spring Channel at Road Crossing

Aberdeen Ditch, July 2016
Spring Channel at Road Crossing

Willow recruitment in Aberdeen Ditch Spring Channel, north of road crossing (October 2020).

Water Commitment:

145 AF per year per the Additional Mitigation Projects document and Second Amendment of Amended Stipulation and Order S1CVCV01-29768.

Current Status:

Water continues to be provided annually to this project. Flow monitoring will continue monthly and will be reported in LADWP's Annual Owens Valley Report. The project will continue functioning as described in the Additional Mitigation Projects document with the water allotment for the project remaining at 145 AF annually. ***Project is implemented and ongoing.***

2 Big and Little Seely Springs (1-acre pond near W349)

Legal Reference: 1991 EIR Impact 10-14	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-14: Increased groundwater pumping has reduced or eliminated flows from Fish Springs, Big and Little Seely Springs, Hines Spring, Big and Little Blackrock Springs, and Reinhackle Spring. This has caused significant adverse impacts to vegetation at several of these spring areas.	In the area of Big and Little Seely Springs, LADWP well number 349 discharges water into a pond approximately one acre in size. This pond provides a temporary resting place for waterfowl and shorebirds when the pump is operating or Big Seely Spring is flowing. This water passes through the pond to the Owens River. Riparian vegetation has become established around this pond.

**Also noted in 1991 EIR Table 5-2.*

Project Goal:

The goal of this project is to create a one-acre pond supplied by W349 adjacent to the Owens River that serves as habitat for waterfowl and shorebirds, and to establish riparian vegetation around this pond.

Progress to Date:

This project was implemented as an LADWP environmental project in the 1970's. Water is pumped from W349 to supply the pond and returns to the Owens River from the east side of the pond. This project is functioning as described and is ongoing with water supplied annually to the project. Maintenance occurs as necessary.

Water Commitment:

No firm water commitment. While this project does require water for the pond, much of the pumped well water flows out of the pond and into the Owens River, making its way to supply other downstream obligations or into the aqueduct to supply Los Angeles. Water supply for this project is allocated in the approximately 10,000 AFY provided by LADWP to maintain a series of environmental projects implemented between 1970 and 1984.

Current Status:

Water continues to be provided annually to this project. ***Project is implemented and ongoing.***

3 Big Pine Area Revegetation Project

Legal Reference: 1991 EIR Impact 10-19	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-19: Water management practices in a portion of the Big Pine Well Field have resulted in a significant adverse change and decrease of plant cover.	A revegetation program will be implemented for approximately 160 acres within the Big Pine area, which have lost all or part of its vegetation cover due to increased groundwater pumping or to abandonment of irrigation as part of operations to supply the second aqueduct. Will be revegetated.

Project Goal:

The goal of this project is to restore the vegetation type that previously existed, to establish perennial vegetation comparable to nearby areas, or to revegetate with other native Owens Valley species. The site-specific goal for this area is 16% live perennial cover and 8 native species per guidance in the *1999 Revegetation Plan for Impacts Identified in the LADWP, Inyo County EIR for Groundwater Management* (ICWD 1999), further referred to as the 1999 Revegetation Plan.

Progress to Date:

This site was fenced to reduce disturbance in 1998. Permanent vegetation transects were established in 1999. Mulch was applied to the site in 1999 and soil microbial studies were conducted in 1999, 2003, 2004, and 2005 by Montgomery Watson Harza (MWH).

Drill seeding of the site occurred in Spring 2011 (20 acres), Winter 2014 (28 acres), and most recently in Fall/Winter 2015/2016 (154 acres). At that time, approximately 154 acres were drill seeded within interspaces at 10lbs/acre using native shrub seed mix. Seed germination from the 2015/2016 seeding efforts was largely successful at this site. Additionally, some natural recruitment is occurring along the perimeter of the site.

Additionally, LADWP planted 100 greasewood shrubs utilizing the Cocoon Planting System from Land Life Company in the fall of 2018. This technology allows for shrubs to grow in arid environments with a temporary reservoir and does not require additional irrigation post planting. While this technique was initially successful, as of 2019, there was only a 10% survivability rate of these outplanted shrubs.

Revegetation monitoring transects were run in 2019. At that time, the parcel contained 10% native perennial vegetation cover with 11 native species. Perennial species currently on site include *Ericameria nauseosa, Atriplex torreyi, Atriplex canescens, Atriplex confertifolia, Krascheninnikovia lanata, Sarcobatus vermiculatus, Atriplex polycarpa, Artemisia tridentata, Ambrosia dumosa, and Robinia pseudoacacia*. **The project has obtained the composition goal.** There has been a significant upward trend in cover following the 2017 and 2019 precipitation years. Project is implemented but has not yet attained cover goals.

There is currently no formal irrigation system in place at this site. LADWP does not intend to install irrigation facilities at this time based on the success of the most recent seeding effort.

Water Commitment:

None.

Current Status:

This site will continue to be monitored once every five years until it has met success criteria.
Project is fully implemented but has not attained cover goals. Composition goals have been attained.

4 Big Pine Area Revegetation Project

Legal Reference: 1991 EIR Impact 10-19	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-19: Water management practices in a portion of the Big Pine Well Field have resulted in a significant adverse change and decrease of plant cover.	An area of approximately 20 acres directly to the east of Big Pine that is poorly vegetated as a result of pre- project activities and activities which are not a part of the project will be evaluated as a potential enhancement/mitigation project. If, in planning this project, it is determined that it is not feasible to permanently irrigate this area, a revegetation program will be implemented.

Project Goal:

The goal of this project is to restore the vegetation type that previously existed, to establish perennial vegetation comparable to nearby areas, or to revegetate with other native Owens Valley species. The site-specific goal for this area is 16% live perennial cover and 8 native species per guidance in the 1999 Revegetation Plan.

Progress to Date:

This site was fenced to reduce disturbance and promote reestablishment in 2007. In February 2014, LADWP crews seeded approximately 3.2 acres of this area with a native seed mix in conjunction with the adjacent 160-acre Big Pine parcel. Approximately 18 acres was drill seeded within interspaces at 10lbs/acre using native shrub seed mix during Winter 2015/2016 (see photo). Seed germination from the 2015/2016 seeding efforts was moderately successful at this site and there is some natural recruitment also occurring.

As of 2019, the parcel contained 2.4% native perennial vegetation cover with 3 native species. Perennial species currently on site include *Ericameria nauseosa, Atriplex canescens, and Atriplex polycarpa.*

There is currently no formal irrigation system in place at this site. LADWP reseeded this site again in March 2021.

Project Photos:

Drill seeding of the Big Pine East Revegetation Parcel (March 2016).

Big Pine East Revegetation Project (June 25, 21). Note the recruitment of shrubs from LADWP's seeding efforts.

Water Commitment:

None.

Current Status:

This site will continue to be monitored once every five years until it has met success criteria.
Project is implemented but has not attained cover or composition goals.

5 Big Pine Ditch System

Legal Reference: 1991 EIR Impact 10-19	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-19: Water management practices in a portion of the Big Pine Well Field have resulted in a significant adverse change and decrease of plant cover.	The Big Pine Ditch project is planned to be implemented as provided in the Water Agreement. (The Water Agreement Section XIV.E states that LADWP is to provide up to $100,000 for reconstruction and upgrading of the ditch system. Additionally, LADWP is to make a flow of up to 6 cfs available to supply the ditch with water. Water to replace any water used by this project will come from a new well, which will be constructed west of Big Pine).

**Also evaluated in the 2003 Big Pine Ditch System MND.*

Project Goal:

The goal of this project is to maintain the flow of water through the town of Big Pine in several of the existing ditches serving the town to meet irrigation needs. Water is to be supplied by diversion from Big Pine Creek and after passing through town will flow into the Los Angeles Aqueduct by way of the Big Pine Canal. A new well is to be constructed as part of the project to replace water consumed by the project.

Progress to Date:

The project was originally scoped as an enhancement/mitigation project in 1985. The Standing Committee approved procedures and guidelines for implementing the project in 1998. The *Initial Study and Mitigated Negative Declaration for the Big Pine Ditch System and Modification to the Klondike Lake Project in the Big Pine Area of Inyo County* (MND) was prepared and circulated in 2003 for a revised project and was approved by the Los Angeles Board of Water and Power Commissioners on November 12, 2003.

Under the revised project, the $100,000 commitment and Bell Canyon Well west of Big Pine still stands, however, the revised project differs from the original by:

- Expanding the sources of replacement water to include diversions from Big Pine Creek and the Bell Canyon Ditch.
- Allowing surface water flow in Big Pine Creek to be augmented with groundwater pumped from Well 415, and the surface water flow in Bell Canyon Ditch to be augmented from the proposed Bell Canyon Well.
- Reducing the water allotment for the Klondike Lake Enhancement/Mitigation Project from approximately 2200 AF per year to an average of approximately 1,700 AF per year; 300 AF of this savings will be transferred for use by the Big Pine Ditch System.
    - o Only water in excess of 300 AF per year that is used by the Big Pine Ditch System Project will have to be replaced by groundwater pumped from Well 415 and the new Bell Canyon Well
- New construction and the operation and maintenance of new facilities will be the responsibility of the Big Pine Irrigation and Improvement Association (BPIIA). Ditches already in place on City land will continue to be maintained by LADWP.

Modification to the Water Agreement:

Concurrent with the adoption of the revised project, the Inyo/Los Angeles Water Agreement was officially modified in 2003 to change the source of the replacement water and to specify new sources for the Big Pine Ditch System, as it varied from the original project description.

Per the 2003 Modification to the Water Agreement, water used by the Big Pine Ditch is defined as the difference between the measured amount of water that is supplied to the ditch system at:

- the Mendenhall Ditch diversion structure (from Big Pine Creek)
- the Bell Canyon headgates (from the Bell Canyon well)
- and at the systems' Bell Canyon diversion box (from the Bell Canyon Ditch)

and the measured amount of water that flows out of the ditch system.

The amount of water annually used by the ditch system must be replaced by an equal amount of water through the following sources:

1. the 300 AFY Klondike Lake E/M Credit
2. pumping from Well 415 (the amount in excess of the amount supplied the town water system)
3. pumping from the Bell Canyon Well

The BPIIA has implemented all phases required for the project and it has been in operation since 2005. LADWP has provided $99,745 of the $100,000 committed to the project.

LADWP annually supplies the required water to the project but is not currently recovering the makeup water beyond the 300 AF E/M credit transferred from the Klondike Lake Project. Well 415 has been drilled and equipped and is scheduled to be tested in 2021.

LADWP has conducted internal evaluations for the Bell Canyon well but this well has not yet been drilled. If all makeup water can be supplied through Well 415 once operational, LADWP does not intend to drill the Bell Canyon Well.

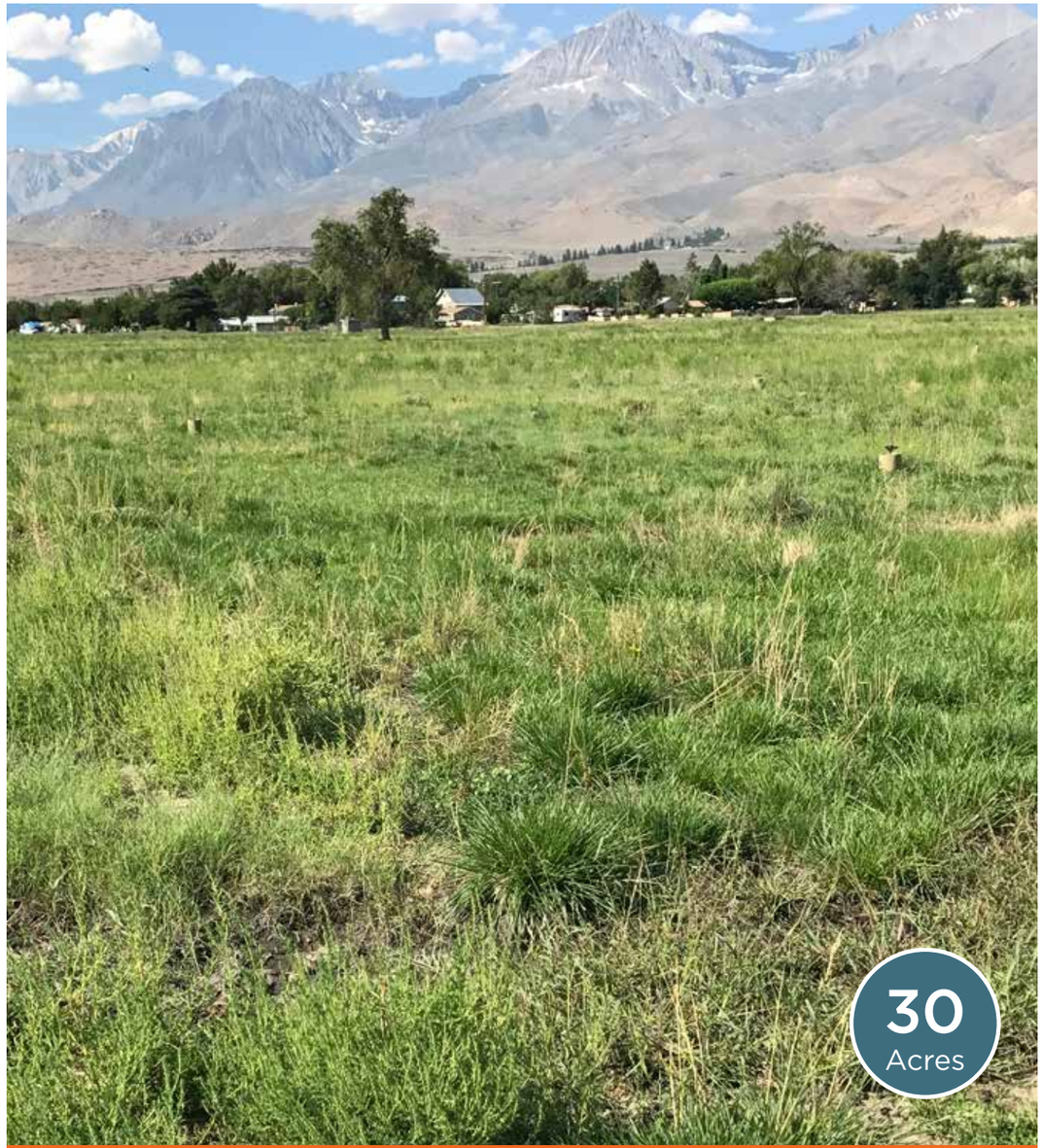
Water Commitment:

None. All water used for this project is to be made up with pumped water. However, a 6 cfs flow is to be made available to supply the ditch system with water per the 2003 Modification to the Water Agreement for the Big Pine Ditch System.

LADWP annually supplies the required water to the project but is not currently recovering the makeup water beyond the 300 AF E/M credit transferred from the Klondike Lake Project.

Current Status:

Water is supplied annually to the project as required. However, Well 415 and the Bell Canyon Well are not operational and the City is therefore not recovering makeup water for this project as intended and described. ***Project is implemented and ongoing.***



6 Big Pine Northeast Regreening

Legal Reference: 1991 EIR Impacts 10-11 and 10-19, EIR Table 5-3	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-11: Fluctuations in water tables due to groundwater pumping have caused approximately 655 acres of groundwater dependent vegetation to die off. Loss of vegetation cover has occurred on these lands. 10-19: Water management practices in a portion of the Big Pine Well Field have resulted in a significant adverse change and decrease of plant cover.	10-11: In the near future, two enhancement/mitigation projects will be initiated to mitigate areas affected by groundwater pumping adjacent to the towns of Independence (east side regreening project) and Big Pine (northeast regreening project). Each project was originally planned to be approximately 30 acres of irrigated pasture. 10-19: LADWP and Inyo County will implement the Big Pine Regreening enhancement/mitigation project by establishing irrigated pasture on approximately 30 acres to the north and east of Big Pine.

**Also evaluated in the Big Pine Northeast Regreening ND (2011).*

Project Goal:

The goal of this project is to enhance the aesthetics and regreen abandoned agricultural lands adjacent to a residential area in Big Pine.

Progress to Date:

The Inyo/Los Angeles Technical Group presented the Final Scoping Documents for the Town Regreening Projects to the Standing Committee for evaluation and approval on September 28, 1988. These projects were originally considered categorically exempt. However, the Standing Committee approved a revised scope of work for the Big Pine Northeast Regreening Project as an Enhancement/Mitigation Project under the 1991 EIR on November 4, 2010. The revised scope modified the boundaries of the project and amended the water supply source to be Big Pine Creek via the Big Pine Ditch System, Baker Creek via the Mendenhall Park Ditch, or Baker Return Ditch, or the Big Pine Canal, or a combination of these. As revised, the project will be supplied with up to 150 AF of water per year, and surface water supplied to the project will be made up by pumping W375 in an amount equivalent to that supplied to the project on an annual basis. Additionally, irrigation water is supplied by sprinkler irrigation but could also be supplied by flood irrigation.

LADWP prepared and circulated an Initial Study and Negative Declaration for the Big Pine Northeast Regreening Project in November 2011. This Negative Declaration was approved by the Board of Water and Power Commissioners on March 6, 2012 and its Notice of Determination was filed with the State Clearinghouse and Inyo County Clerk on March 7, 2012. The Owens Valley Committee and the Big Pine Paiute Tribe brought a lawsuit against LADWP April 6, 2012 (Case No: SICVPT12-53541) challenging the adequacy of the Negative Declaration and impacts from the use of W375 for makeup water for the project. This suit was settled in November 26, 2012. The Technical Group exempted well W375 on November 6, 2013 for project makeup water in order to make this project feasible.

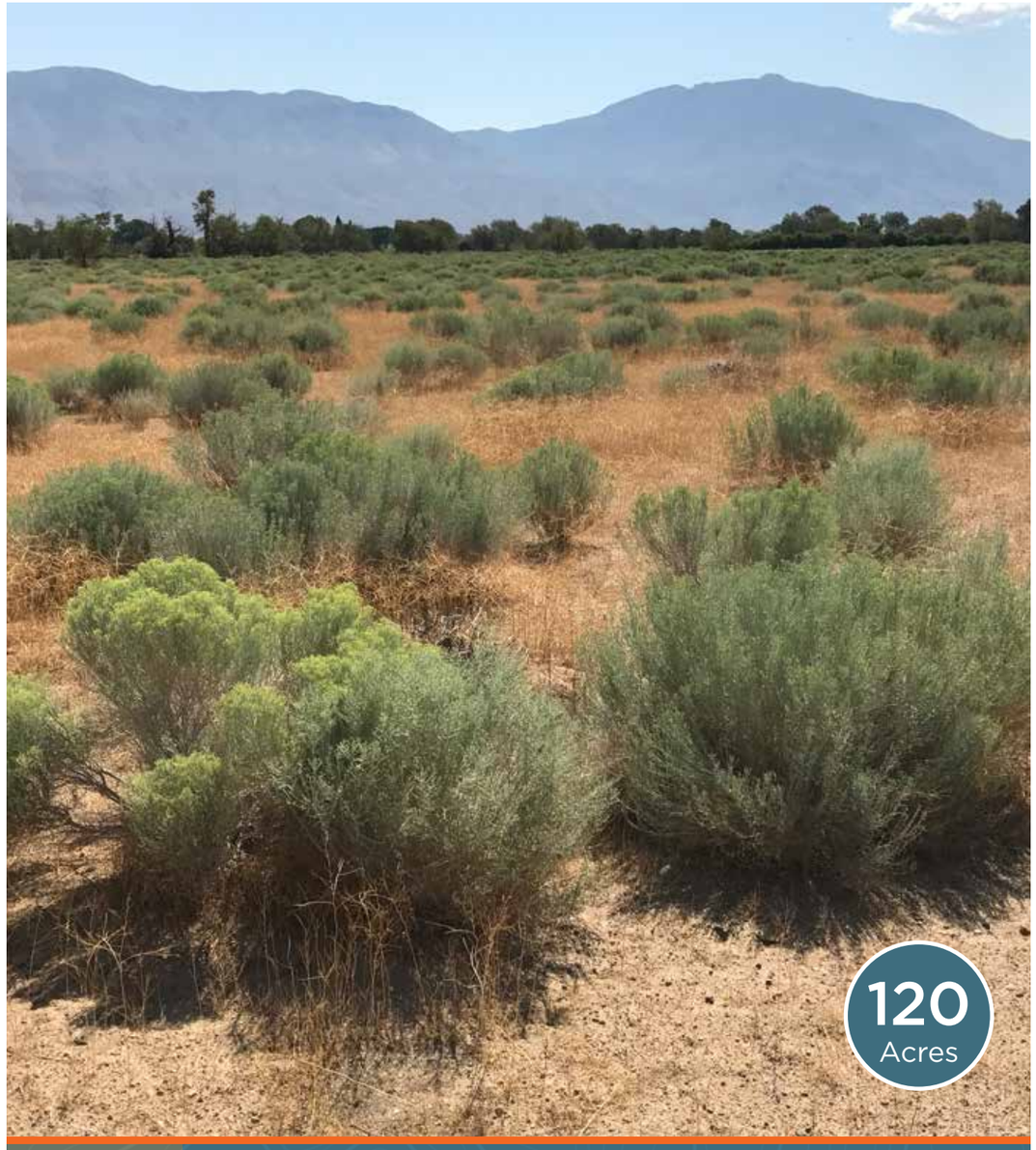
Installation of the irrigation system for this project occurred in Winter 2013/2014. The Big Pine Northeast Regreening was fully implemented in Spring 2014. Water continues to be provided annually to the project as required.

Water Commitment:

Up to 150 AF per year per the Big Pine NE Regreening ND (2011) and Standing Committee Memo (November 10, 2010).

Current Status:

Water continues to be provided annually to this project. ***Project is implemented and ongoing.***



7

Bishop Area Revegetation Project

Legal Reference: 1991 EIR Impact 10-16	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-16: Approximately 1,080 acres of formerly irrigated lands had not successfully revegetated following the abandonment of agriculture. This was a significant adverse impact because these lands had a loss of vegetation and were the source of blowing dust.	120 acres of formerly irrigated land near Bishop with a loss of vegetation cover will be revegetated. The process to successfully revegetate these lands will be determined through studies to be conducted by LADWP and Inyo County. These lands will not be permanently irrigated, but will be revegetated with Owens Valley vegetation not requiring irrigation except perhaps during its initial establishment. Depending on the amount of rainfall and runoff, successful revegetation of these lands could take a decade or longer. The goal will be to achieve as full a vegetation cover as is feasible, but at a minimum, a vegetation cover sufficient to avoid blowing dust.

Project Goal:

The goal of this project is to restore the vegetation type that previously existed, to establish perennial vegetation comparable to nearby areas, or to revegetate with other native Owens Valley species. The site-specific goal for this area is 14% live perennial cover and 9 native species per guidance in the 1999 Revegetation Plan.

Progress to Date:

The site was fenced to reduce disturbance in 1998. Permanent transects were established in 1999. MWH conducted dryland revegetation studies at this site in 2003 and a soil microbial study at this site in 2005. In 2011, approximately 35 acres were drill seeded with locally collected seeds. In 2012, a buried drip irrigation system was installed across 16 acres of the site and seed was planted at these emitters. Approximately 3,000 containerized plants were outplanted at this site in Spring 2012. In 2015, approximately 6 acres were hand seeded at emitters with native seed mix and approximately 11.3 acres were drill seeded at the south end of the site. In Spring 2019, LADWP planted 230 shrubs consisting of *Atriplex canescens, Atriplex polycarpa, and Eriogonum fasciculatum* utilizing the Cocoon Planting System from the Land Life Company. This technology allows for shrubs to grow in arid environments with a temporary reservoir and does not require additional irrigation post planting. By August 2019, the shrubs had a 48% survivability rate. The shrubs will continue to be monitored for success. Approximately 4 acres on the south end of the site were seeded again in March 2021.

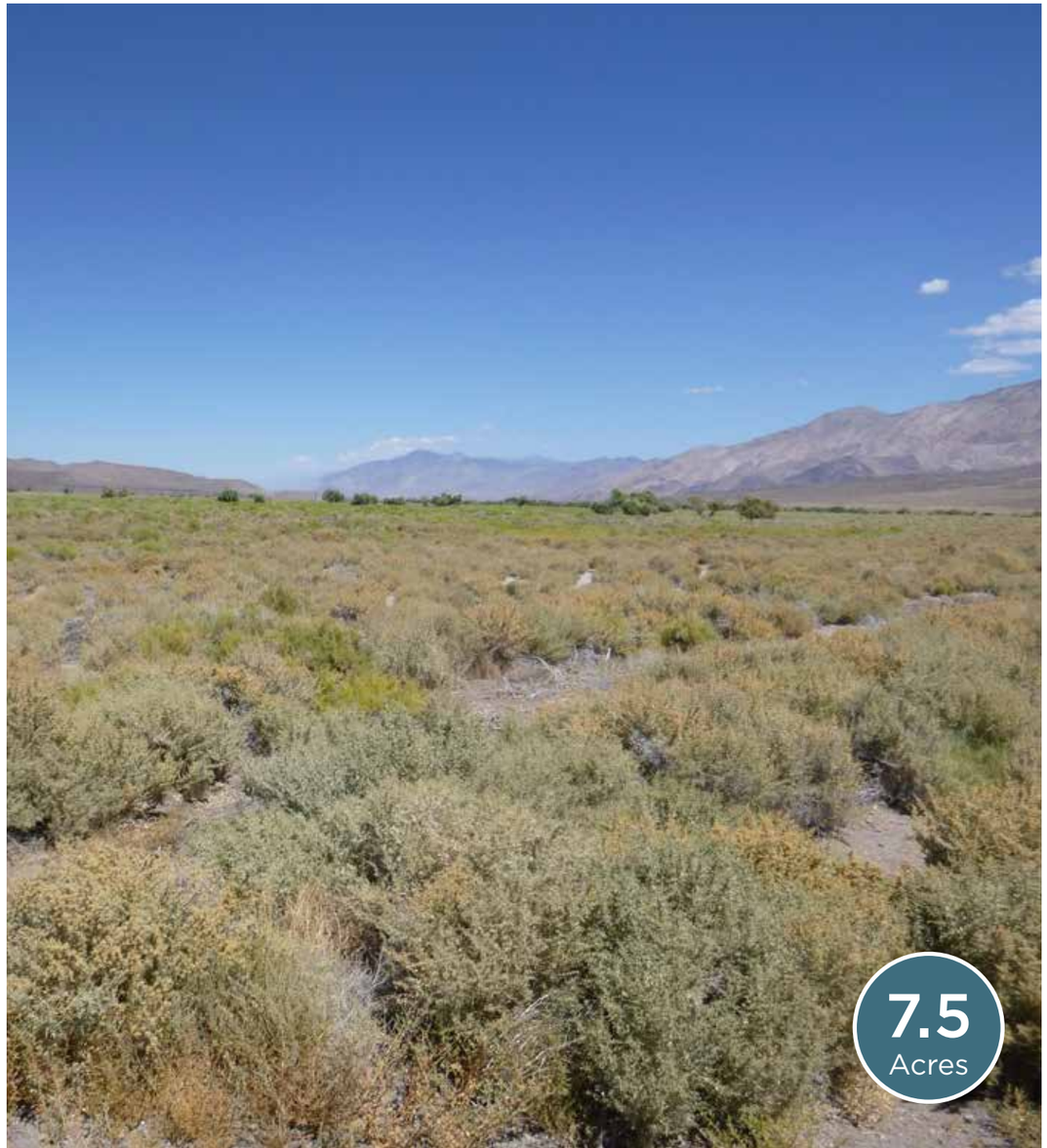
Revegetation transects were monitored in August 2019. At that time, the parcel contained 14% native perennial vegetation cover with 4 native species. **The site has met prescribed cover goals.** Perennial species currently on site include *Ericameria nauseosa, Atriplex canescens, Artemisia tridentata, and Ulmus pumila.* The site is naturally revegetating from the edges and along buried drip lines. Natural recruitment at this site is visually significant compared to others.

Water Commitment:

None.

Current Status:

This site will continue to be monitored once every five years until it has met success criteria. ***Project is implemented but has not yet attained composition goals. This site has reached cover goals.***



8

Blackrock 16E Revegetation Project

Legal Reference: 1991 EIR Impact 10-11	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-11: Fluctuations in water tables due to groundwater pumping have caused approximately 655 acres of groundwater dependent vegetation to die off. Loss of vegetation cover has occurred on these lands.	Approximately 80 acres of land that lost a significant amount of its native vegetation cover as a result of increased groundwater pumping will be revegetated. The techniques that will be employed to revegetate these lands will be determined through studies that will be conducted by LADWP and Inyo County. These lands will not be permanently irrigated, but will be revegetated with native Owens Valley vegetation not requiring irrigation except perhaps during its initial establishment. Depending on the amount of rainfall and runoff, successful revegetation of these lands could take a decade or longer. The goal will be to restore as full a native vegetation cover as is feasible, but at a minimum, vegetation cover sufficient to avoid blowing dust will be achieved in that area.

Project Goal:

The goal of this project is to restore the vegetation type that previously existed, to establish perennial vegetation comparable to nearby areas, or to revegetate with other native Owens Valley species. The site-specific goal for this area is 31% live perennial cover consisting of 5 perennial species (ICWD 1999).

Progress to Date:

This site was fenced to reduce disturbance and permanent vegetation transects were established. These transects were run in 2010 and the parcel attained cover and composition goals with 36% cover and 11 native perennial species. Exclusionary fencing was removed in 2015.

Project Photos:

BLK16E Revegetation Site (August 2002).

BLK16E Revegetation Site (August 2017).

Water Commitment:

None.

Current Status:

Project is complete.

9

Blackrock Fish Hatchery

Legal Reference: 1991 EIR Impact 10-14	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-14: Increased groundwater pumping has reduced or eliminated flows from Fish Springs, Big and Little Seely Springs, Hines Spring, Big and Little Blackrock Springs, and Reinhackle Spring. This has caused significant adverse impacts to vegetation at several of these spring areas.	No on-site mitigation will be implemented at Fish Springs and Big Blackrock Springs; however, CDFW fish hatcheries at these locations serve as mitigation of a compensatory nature by producing fish that are stocked throughout Inyo County.

Project Goal:

The goal of this project is to provide compensatory mitigation for impacts at adjacent springs by providing fish for stocking purposes throughout Inyo County. The hatchery is on City of Los Angeles property and LADWP annually supplies water to the project.

Progress to Date:

The Blackrock Hatchery Ponds were first operated in 1941. In 1976, the hatchery was expanded. This hatchery raises rainbow and California Golden Trout for distribution to approved waters in the State of California and is managed by the California Department of Fish and Wildlife. The hatchery is on City of Los Angeles property and LADWP annually supplies water to the project from W351 and W356.

Water Commitment:

None. Currently approximately 8,000 AFY per year is pumped to supply the fish hatchery with water, but the pumped water makes its way into the Los Angeles Aqueduct system and is either a source for other downstream obligations or supply for Los Angeles.

Current Status:

Water is supplied annually to the project as required. ***Project is implemented and ongoing.***

10 Buckley/Rawson Ponds

Legal Reference: 1991 EIR Impacts 10-5 and 11-1	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-5: Between 1970 and 1990, the project resulted in beneficial changes to lakes and ponds, and the creation of new lakes and ponds, with no significant adverse impact on vegetation. 11-1: Changes of surface water management practices and increased groundwater pumping have altered the habitats on which wildlife depends. Vegetation changes have been significant in many locations throughout the Valley. Therefore, impacts to certain species of wildlife, which were entirely dependent upon the impacted habitat, can be presumed to be significant.	Under this project, water is provided for a warm-water fishery and waterfowl area.

Project Goal:

The goal of this project is to provide an interconnected wildlife habitat area for waterfowl, shorebirds, upland game, and warm water fishes, and provide local recreational fishing opportunities. Surface water is supplied to the ponds from the Rawson Canal that branches off of the Bishop Creek Canal in East Bishop.

Progress to Date:

The dike system forming the Buckley Pond Series was originally constructed in the 1950s to create a water spreading and groundwater recharge area to be used only in above normal years. In 1968, a cooperative agreement between LADWP and CDFG proposed a habitat improvement project and permanent wildlife habitat area. Work under this agreement began in 1970 when it was implemented as an LADWP Environmental Project. LADWP, California Department of Fish and Game, and California Department of Forestry signed onto the joint Habitat Management Plan for the Buckley Pond Series in 1976 that described how the pond series was to be managed.

Water is diverted from the Bishop Creek Canal via Diversion #12 into the Rawson Canal to fill Buckley and Rawson Ponds #1, #2, and #3. Water is then (a) returned to the river via Rawson Pond Return to the river (from Pond #3), or (b) continues in the Rawson Canal to fill Duck and Saunders Ponds downstream. Water is then returned through Saunders Return to the river.

LADWP conducted significant maintenance in these ponds in 2011-2014. In December 2011, LADWP

conducted controlled burns on Rawson Ponds #1, 2, and 3 with assistance from Cal Fire. Additional controlled burns were conducted on Rawson Pond #1 in December 2012 and on Rawson Pond #2 in January 2014. Following burning, all ponds were cleaned (by LADWP and local volunteers), new inlet/outlet structures installed, and handicap accessible fishing platforms were constructed by the local Lions Club at each site. Rawson Pond #3 was back in service in March 2012, Rawson Pond #1 in March 2013, and Rawson Pond #2in April 2014. These ponds are maintained annually to keep tule and cattail encroachment at bay.

Project Photos:

Aerial view of Rawson Ponds # 1, 2, and 3 (August 2017, looking southeast).

Handicap accessible fishing platform at Rawson Pond #2 (August 2017).

Flock of pelicans on Rawson Pond #2 (October 2020).

Water Commitment:

There is no firm water commitment for this water project. The water supply for this project is part of approximately 10,000 AFY provided by LADWP for a series of environmental projects developed between 1970 and 1984.

Current Status:

Water continues to be provided annually to this project. Maintenance occurs as necessary. ***Project is implemented and ongoing.***

11

Calvert Slough

Legal Reference: 1991 EIR Impact 10-5	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-5: Between 1970 and 1990, the project resulted in beneficial changes to lakes and ponds, and the creation of new lakes and ponds, with no significant adverse impact on vegetation.	Under this project, water is provided to maintain habitat, a small pond, and marsh area near the Los Angeles Aqueduct Intake.

**Also in EIR Table 5-2*

Project Goal:

The goal of this project is to provide water to maintain habitat, a small pond and marsh area near the Los Angeles Aqueduct Intake.

Progress to Date:

Calvert Slough was originally implemented as an LADWP Environmental Project in the 1970s. Water is diverted from Taboose Creek to fill and maintain the pond during the fall months.

Adjacent to the project site, LADWP (through CalFire) conducted a controlled burn on 199 acres of irrigated pasture west of Calvert Slough in Spring 2021. The primary objectives of the burn are to (1) to reduce fuel loads south of Aberdeen Station Road to decrease intensity of future wildfires along the Owens River riparian corridor, and (2) halt further shrub encroachment, and (3) facilitate the expansion of herbaceous dominated meadow system which will promote an increase in plant vigor, forage abundance and forage quality for wildlife use and cattle grazing.

Water Commitment:

There is no firm water commitment for this water project. The water supply for this project is part of approximately 10,000 AFY provided by LADWP for a series of environmental projects developed between 1970 and 1984. This project is generally supplied water during the fall months to maintain the pond and marsh.

Current Status:

Water continues to be provided to this project.
Project is implemented and ongoing.

12 Diaz Lake

Legal Reference: Additional Mitigation Projects Developed by the MOU Ad Hoc Group (MOU Section III.A.3), Second Amendment of Amended Stipulation and Order S1CVCV01-29768. Also noted in EIR Table 5-2.

Project Goal:

The goal of this project as described in the 1991 EIR is to provide supplemental water to the Diaz Lake Recreational Area. This original project relied on pumped groundwater from County wells at the north end of the lake.

The project's water supply was modified under the 1997 MOU as one of the Additional Mitigation Projects Developed by the MOU Ad Hoc Group (2008). The Diaz Lake Project under the 1997 MOU provides a secure water supply for Diaz Lake (surface water from the Los Angeles Aqueduct) and reduces the dependence on pumping conducted by Inyo County to supply the lake (as was the case with the original project). The primary benefit of the MOU project is reduced pumping by Inyo County in the Bairs-George wellfield to provide water for Diaz Lake. The annual water allotment for Diaz Lake is 250 AF. Any water requested by the County and used beyond that the 250 AF can be pumped back to the aqueduct as makeup water. Water is supplied to this project upon Inyo County's request and when necessary for LADWP's operational needs.

The County of Inyo maintains a business lease to operate and maintain the Diaz Lake Recreational Area for recreational purposes (i.e., camping, fishing, water sports, day and overnight use, food concessions).

Progress to Date:

The Diaz Lake Project was originally implemented as an LADWP Environmental Project in the 1970s. The changes in water supply and accounting for the project under the MOU were implemented in Spring 2012.

No additional infrastructure was necessary for this project under the MOU as it is a water accounting project to provide an alternative supply for a project that was already in operation. The following table depicts water supplied to the Diaz Lake Project since implementation of the revised project. Other than measuring the lake stage and maintaining water releases, no other monitoring for this project was required under the Additional Mitigation Projects document.

Since the implementation of the Additional Mitigation Projects, water supplied to the project has ranged from 185 AF to 252 AF with the exception of 2016-17 when LADWP supplied 401 AF to this project to manage for operational needs during an extremely wet year, and the remaining water balance for the 1600AF projects could not be supplied in Warren Lake as described in the Additional Mitigation Projects document. Makeup water was not pumped back in this instance because it was necessary to complete the remaining water balance. In LADWP's 2017 Five Year Evaluation of the Projects (2017 Annual Owens Valley Report), LADWP recommended that this project be used to fill the water balance if necessary in years when Warren Lake is at capacity (as in 2016-2017).

Year	Diaz Lake Project Total Acre Feet (AF) Supplied
Project Target	**250**
2012-2013	185
2013-2014	240
2014-2015	248
2015-2016	217
2016-2017	401*
2017-2018	102
2018-2019	252
2019-2020	174
2020-2021	250
Average	**230**

**Due to high winter precipitation and associated flooding, LADWP could not release the entire remaining water balance to Warren Lake in 2016-2017. This water balance was made up at Diaz Lake. Although the total was in excess of 250 AF as described in the plan, LADWP did not pump makeup water for this excess since it was necessary to complete the remaining water balance.*

Five Year Evaluation:

LADWP completed the required 5-year evaluation of the Additional Mitigation Projects in 2017. The evaluation was provided to the MOU Parties and the public as part of LADWP's 2017 Annual Owens Valley Report. Monthly flow monitoring will continue as well as periodic monitoring and treatment of invasive species. This information will continue to be provided in LADWP's annual report.

Water Commitment:

250 AFY per the Additional Mitigation Projects document and Second Amendment of Amended Stipulation and Order S1CVCV01-29768.

Current Status:

Water is provided annually to the project. Flow monitoring will continue monthly and will be reported in LADWP's Annual Owens Valley Report. ***Project is implemented and ongoing.***

13 Eastern California Museum

Legal Reference: 1991 EIR Tables 4-3 and 5-3	
1991 EIR Impact:	**Mitigation Measure/Provision:**
N/A	This project enhanced the appearance of the Eastern California Museum grounds in Independence. It consists of a small pond, trees, expanded lawn areas, and an irrigation system.

Project Goal:

The goal of this project is to enhance the appearance of the Eastern California Museum grounds in Independence. The project consists of construction of a small pond, addition of trees, expanded lawn area, and an irrigation system. Water for the pond is supplied through an existing ditch that crosses the museum property; water is returned from the pond to the ditch. Water for irrigation of the lawn and trees is supplied through the Independence Town Water system (through LADWP per the Inyo/LA Water Agreement) and paid for by Inyo County.

Progress to Date:

A scoping document for the Enhancement of the Grounds of the Eastern California Museum was developed in 1988. The project consisted of relocation of three buildings onsite, construction of a pond, extension of the existing lawn area, the addition of picnic tables and trees, and the installation of privacy fencing and an irrigation system for the tree and lawn areas.

This project was implemented in 1989. The project is currently leased and maintained by the County of Inyo.

Project Photo:

Eastern California Museum Grounds (August 2017)..

Water Commitment:

No firm water commitment. Water is diverted from Independence Creek through a ditch, into the pond at the museum, and then returned to Independence Creek.

Current Status:

Water continues to be provided annually to this project. ***Project is implemented and ongoing.***

14 Farmers Pond

Legal Reference: 1991 EIR Impacts 10-5, 10-18, and 11-1	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-5: Between 1970 and 1990, the project resulted in beneficial changes to lakes and ponds, and the creation of new lakes and ponds, with no significant adverse impact on vegetation. 10-18: Significant adverse vegetation decrease and change have occurred in the Laws area due to a combination of factors, including abandoned agriculture, groundwater pumping, water spreading in wet years, livestock grazing, and drought. 11-1: Changes of surface water management practices and increased groundwater pumping have altered the habitats on which wildlife depends. Vegetation changes have been significant in many locations throughout the Valley. Therefore, impacts to certain species of wildlife, which were entirely dependent upon the impacted habitat, can be presumed to be significant.	In the 1970s, LADWP started the Farmer's Pond environmental project. Water is provided in fall of each year to offer increased habitat for migrating waterfowl. The project area is two miles north of Bishop.

**also noted in EIR Table 5-2*

Project Goal:

The goal of this project is to provide water to a pond north of Bishop to offer increased waterfowl habitat in the winter months.

Progress to Date:

This project was originally implemented as an LADWP Environmental Project in the 1970s. Water is supplied from October-December annually from the Bishop Creek Canal. This area is a popular recreation destination for ice skating and waterfowl hunting in the winter months. Water is also supplied to this area as needed for water spreading in above average water years.

Project Photo:

Farmers Pond in Fall (October 2016).

Water Commitment:

There is no firm water commitment for this water project. The water supply for this project is part of approximately 10,000 AFY provided by LADWP for a series of environmental projects developed between 1970 and 1984.

Current Status:

Water continues to be provided annually to this project in the fall. ***Project is implemented and ongoing.***

15

Fish Springs Hatchery

Legal Reference: 1991 EIR Impact 10-14	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-14: Increased groundwater pumping has reduced or eliminated flows from Fish Springs, Big and Little Seely Springs, Hines Spring, Big and Little Blackrock Springs, and Reinhackle Spring. This has caused significant adverse impacts to vegetation at several of these spring areas.	No on-site mitigation will be implemented at Fish Springs and Big Blackrock Springs; however, CDFG fish hatcheries at these locations serve as mitigation of a compensatory nature by producing fish that are stocked throughout Inyo County.

Project Goal:

The goal of this project is to provide compensatory mitigation for impacts at Fish Springs by providing fish for stocking purposes throughout Inyo County. The hatchery is on City of Los Angeles property and LADWP annually supplies water to the project.

Progress to Date:

The Fish Springs Hatchery was originally constructed in 1952 and was modernized in 1972 and again in 2009. This hatchery produces and distributes rainbow and Eagle Lake trout to Inyo and Mono Counties. Hatchery operations are managed by the California Department of Fish and Wildlife.

Water Commitment:

None. Water is supplied to the fish hatchery on a continual basis as required for fish hatchery operations. Pumping averages approximately 20,000 acre-feet per year, but the pumped water makes its way into the Los Angeles Aqueduct system and is used for other downstream obligations or for municipal supply for Los Angeles.

Current Status:

Water is supplied annually to the hatchery. ***Project is implemented and ongoing.***

16 Five Bridges Area Revegetation Project

Legal Reference: 1991 EIR Impact 10-12	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-12: Vegetation in an area of approximately 300 acres near Five Bridges Road north of Bishop was significantly adversely affected during 1988 because of the operation of the two wells, to supply water to enhancement/ mitigation projects.	Water has been spread over the affected area since 1988. By the summer of 1990, revegetation of native species had begun on approximately 80% of the affected area. LADWP and Inyo County are developing a plan to revegetate approximately 60 acres with riparian and meadow vegetation. This plan will be implemented when it has been completed.

Project Goal:

The goal of this project is to restore meadow vegetation that occurred in this area prior to impacts from groundwater pumping.

Progress to Date:

Since 1989, LADWP has implemented various efforts to recover native vegetation in the mitigation area through re-irrigating the affected area each growing season, extensive weed treatment to eradicate perennial pepperweed *(Lepidium latifolium)*, and development and implementation of a grazing management plan to compliment these efforts. LADWP also used controlled burns, sprinkler irrigation, seeding banks and outplanting native species to assist in mitigating the original impacts. As of 2017, based on vegetation data, mitigation for the impacts from groundwater pumping was complete. However, perennial pepperweed has continued to invade much of the Multi-completion field; therefore, LADWP has continued aggressive weed treatment at the site.

Inyo County and LADWP utilized the dispute resolution process to settle disagreements over the W385R pump test and the status of the Five Bridges Mitigation Project in 2017. On June 25, 2018, both parties entered into a Settlement Agreement as resolution to these disputes.

Subsequently, at their July 19, 2018 meeting, the Inyo/Los Angeles Technical Group adopted resolutions to (1) adopt a monitoring and management plan for the W385R pump test and (2) amend the 1999 Revegetation Plan to temporarily suspend the provision requiring Wells 385 and 386 be permanently shut down in order to conduct the pump test. At their February 21, 2019 meeting, the Technical Group adopted a Work Plan for the Five Bridges Mitigation Area for the 2019 and 2020 calendar years to coincide with the W385 pump test which occurred December 2019- February 2020. LADWP has conducted the work outlined in the work plan and required by the Settlement Agreement.

Project Photos:

Five Bridges Multiple Completion Field west of main diversion in mitigation area (July 2017). Note combination of native grasses (bright green band in center) intermixed with pepperweed (foreground).

Aerial view of the Five Bridges Mitigation Area, looking southeast (August 2017). (Intake to McNally Canals on left, south of Chalk Bluffs Road.)

Water Commitment:

None. LADWP has supplied mitigation flows annually to the area during the growing season to sustain native vegetation through 2017. These flows were supplied from river pulses in the 1990s and from Bishop Creek Canal Diversion 2 from 2001-2017. In 2017 and 2019 the project area was supplied with excess water for much of the growing season as a result of high runoff. In 2020, LADWP supplied makeup water to the site required by the W385 pump test (463 AF).

Current Status:

Mitigation efforts for the original impact from groundwater pumping is complete. Weed treatment efforts at this site are ongoing. ***Project is complete.***

17 Freeman Creek Project

Legal Reference: Additional Mitigation Projects Developed by the MOU Ad Hoc Group (MOU Section III.A.3), Second Amendment of Amended Stipulation and Order S1CVCV01-29768.

Project Goal:

The goal for the Freeman Creek project is to divert the creek into ancestral channels to create riparian habitat. These channels include Freeman Creek Wash and a small portion of Keough's Wash east of old Highway 395. Water reaching the lower end of the channels will be managed to benefit irrigated pasture and meadows and to prevent return flows into the LADWP aqueduct system.

The project objectives for Freeman Creek were to:

1. Divert Freeman Creek into ancestral washes to create a diverse riparian corridor;
2. Provide water to the lessee to increase pasture forage and expand the existing pasture; and
3. Manage the project to comply with existing agreements, minimize invasive species, control mosquitoes and prevent return flows to the LADWP aqueduct system.

Progress to Date:

LADWP produced and released an Initial Study (IS) and Mitigated Negative Declaration (MND) for the Additional Mitigation Projects for public review March 23 April 26, 2010. The Notice of Determination for the projects was filed June 1, 2010.

All construction required to implement and operate the project as proposed was complete by July 2010. During implementation, LADWP constructed the required berm to divert all flow to Freeman Creek, installed a culvert to improve a road crossing and deter further recreational damage, and removed all saltcedar from the project area. Water was released to the project beginning in July 2010.

The water allotment for this project is 215 AF based on a long-term average of creek flows, therefore, the Additional Mitigation Projects document and 2010 Stipulation and Order allow for project flows to be recorded as 215 AF annually regardless of varying flow reads over the five-year monitoring period. A new data logger was installed at the flume in 2014 to automate data collection and monitor the volume of water to the project. Actual water supplied to the project is summarized below. Surface water flows to the project were severely reduced during the drought and as of August 2021, have not yet recovered.

Year	Freeman Creek Project Total Acre Feet (AF) Supplied
Project Target	**215***
2012-2013	272
2013-2014	213
2014-2015	206
2015-2016	165
2016-2017	56
2017-2018	10
2018-2019	4
2019-2020	0
2020-2021	0
Average	**103**

**Per the Additional Mitigation Projects document, the long term average creek flow (215 AFY) is used for project accounting regardless of variable flows in the creek.*

The riparian area along Freeman Creek consists of a narrow strip of riparian scrub with an abrupt boundary of upland big sagebrush scrub. The riparian corridors supplied with water by this project recruited desirable woody species in the first few ears post implementation but have died back due to reduced flows in the creek from drought. LADWP and Inyo County are investigating other causes of persisting reduced water supply.

A limited number of saltcedar seedlings are still present in the project area. These will be removed as resources are available.

Five Year Evaluation:

LADWP completed the required 5-year evaluation of the Additional Mitigation Projects in 2017. The evaluation was provided to the MOU Parties and the public as part of LADWP's 2017 Annual Owens Valley Report. In this evaluation, LADWP recommended discontinuing much of the annual photo point and other vegetation monitoring and mapping 5 years post implementation. Monthly flow monitoring will continue as well as periodic monitoring and treatment of invasive species. This information will continue to be provided in LADWP's annual report. No comments were received from any of the MOU Parties regarding the evaluation or proposed changes to project monitoring.

Project Photos:

Freeman Creek, June 2010
Road Crossing Before Culvert Installation

Freeman Creek, June 2010
Road Crossing After Culvert Installation

Dry Wash 2, July 2013
Cottonwood Recruitment

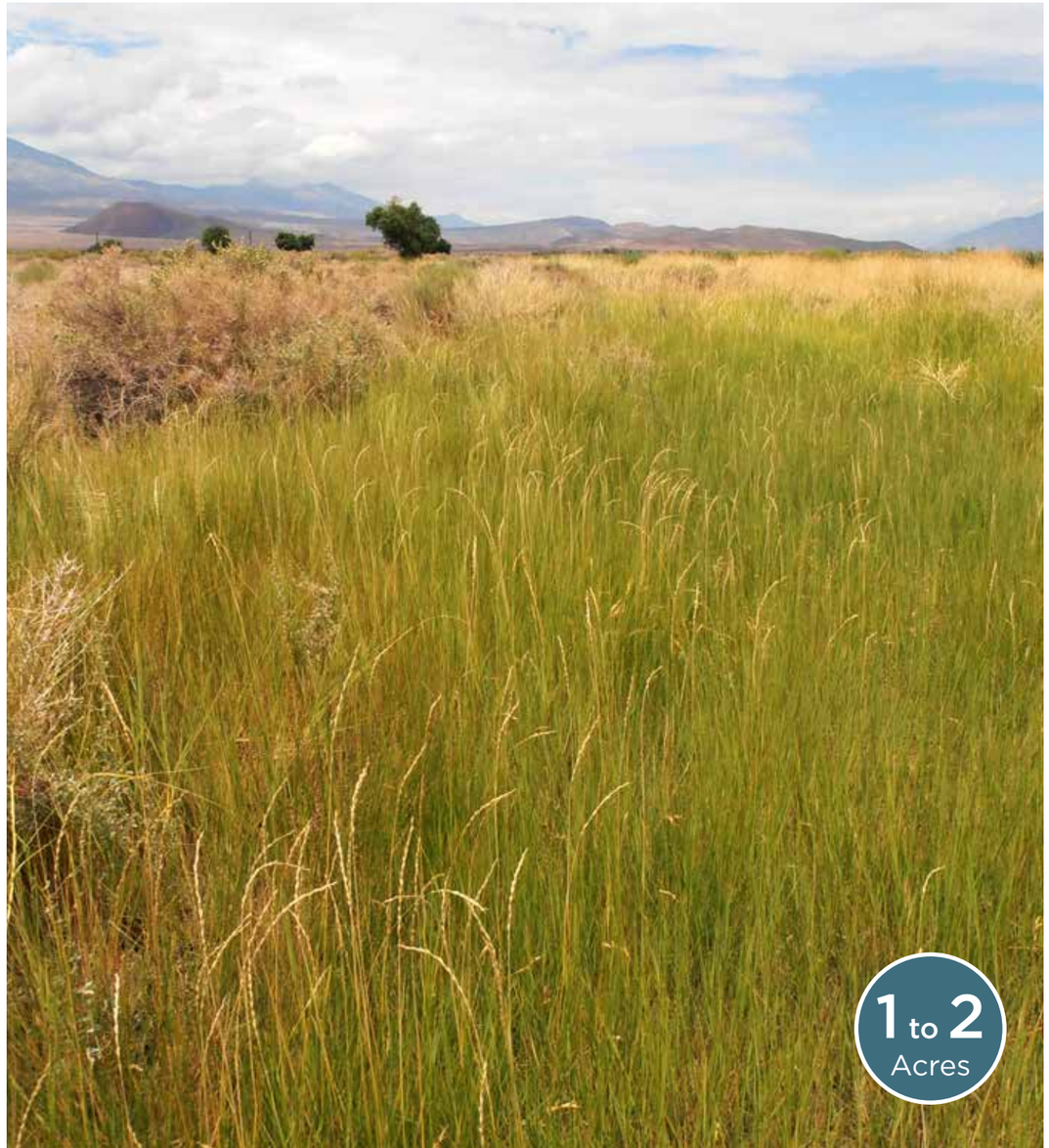
Dry Wash 2, July 2016
Persisting Cottonwood Recruits

Water Commitment:

215 AFY per the Additional Mitigation Projects document and Second Amendment of Amended Stipulation and Order S1CVCV01-29768.

Current Status:

Water continues to be provided annually to this project (as available). Monitoring and treatment for saltcedar will continue as resources are available. Flow monitoring will continue monthly and will be reported in LADWP's Annual Owens Valley Report. ***Project is implemented and ongoing.***



18 Hines Spring

Legal Reference: 1991 EIR Impact 10-14	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-14: Increased groundwater pumping has reduced or eliminated flows from Fish Springs, Big and Little Seely Springs, Hines Spring, Big and Little Blackrock Springs, and Reinhackle Spring. This has caused significant adverse impacts to vegetation at several of these spring areas.	The original mitigation measure called for onsite mitigation at the Hines Spring vent and its surroundings. This project was also identified in the 1997 MOU and subject of 2004 and 2010 Stipulations and Orders. Per the MOU Section III.A.3 (Additional Mitigation), a total of 1600 AF of water per year will be supplied by LADWP for the implementation of the on-site mitigation measure at Hines Springs and on-site or off-site mitigation that is in addition to that identified in the 1991 EIR for impacts at Fish Springs, Big and Little Seely Springs and Big and Little Blackrock Springs. Under the direction of LADWP and the County, Ecosystem Sciences will recommend reasonable and feasible on-site and/or off site mitigation measures, including the implementation of mitigation at Hines Springs.

Project Goal:

The goal of the original mitigation measure was to provide onsite mitigation at the Hines Spring vent and its surroundings to mitigate impacts from groundwater pumping activities. This project was modified in the 1997 MOU Section III.A.3. Additional Mitigation, which called for a total of 1600AF of water to be supplied by LADWP to multiple projects on and off site.

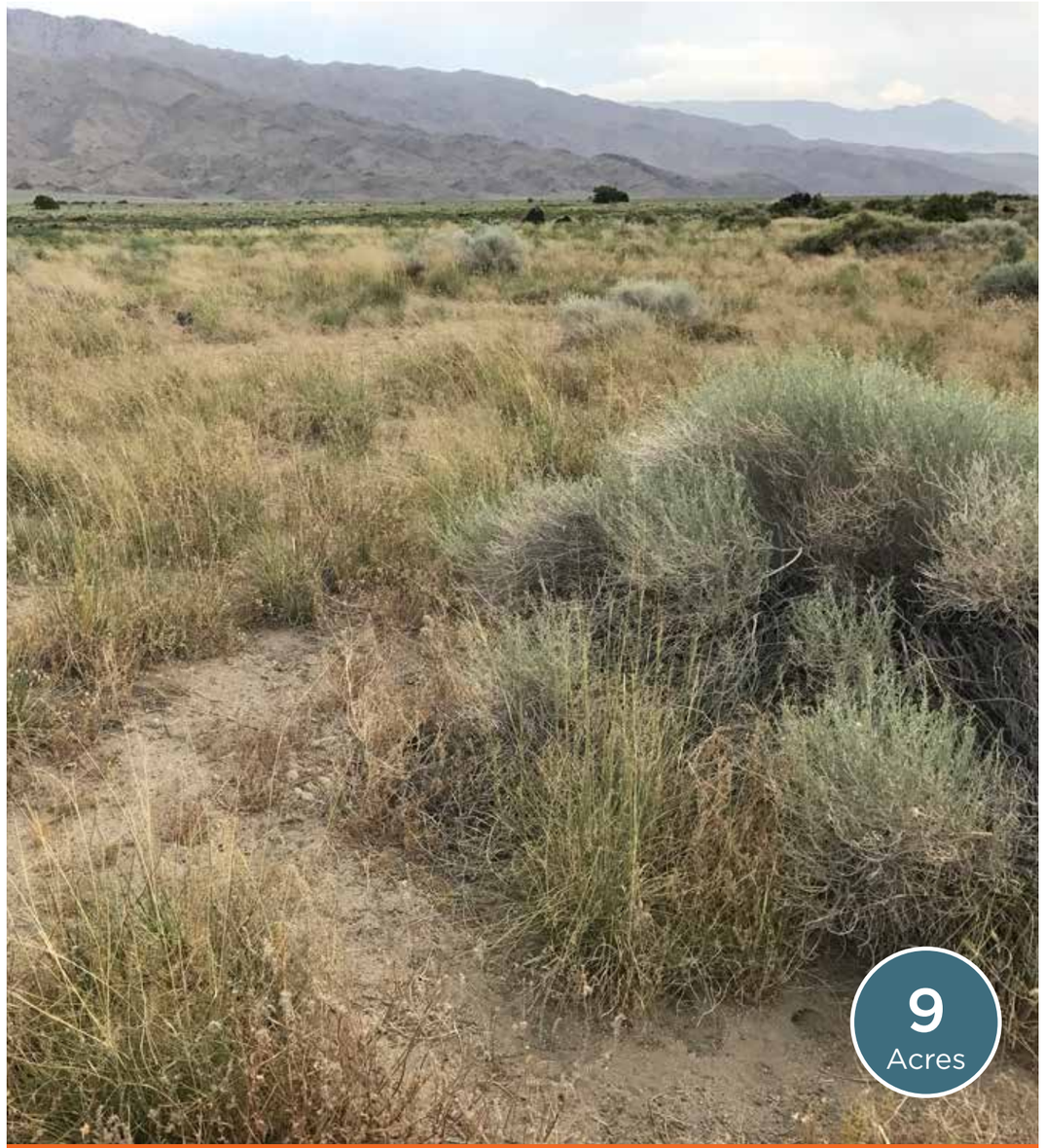
Progress to Date:

Ecosystem Sciences developed a draft plan for this project that was finalized in October 2005. The MOU Parties deemed this plan inadequate and decided to enter into an ad hoc process to analyze the project at Hines Springs and other potential project areas. The Additional Mitigation Projects Developed by the MOU Ad Hoc Group document was finalized in September 2008 and describes a series of eight mitigation projects to satisfy this 1600AF mitigation commitment of the 1997 MOU. These projects include: Freeman Creek, Warren Lake, Aberdeen Ditch, Hines Spring Well 355, North of Mazourka Canyon Road, Homestead, Well 368, and Diaz Lake. This plan was completed and agreed to by the MOU Parties.

CEQA analysis was conducted in Spring 2010 and the projects were adopted by the Board of Water and Power Commissioners in June 2010. Implementation of the projects began shortly thereafter and all were fully implemented by March 2012, in compliance with the timeline outlined in the 2010 Stipulation and Order (Case No: S1CVCV01-29768).

Current Status:

Please refer to relevant project titles for more information on individual projects. ***Projects are implemented and ongoing.***



19

Hines Spring South Revegetation Project

Legal Reference: 1991 EIR Impact 10-11	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-11: Fluctuations in water tables due to groundwater pumping have caused approximately 655 acres of groundwater dependent vegetation to die off. Loss of vegetation cover has occurred on these lands.	Approximately 80 acres of land that lost a significant amount of its native vegetation cover as a result of increased groundwater pumping will be revegetated. The techniques that will be employed to revegetate these lands will be determined through studies that will be conducted by LADWP and Inyo County. These lands will not be permanently irrigated, but will be revegetated with native Owens Valley vegetation not requiring irrigation except perhaps during its initial establishment. Depending on the amount of rainfall and runoff, successful revegetation of these lands could take a decade or longer. The goal will be to restore as full a native vegetation cover as is feasible, but at a minimum, vegetation cover sufficient to avoid blowing dust will be achieved in that area.

Project Goal:

The goal of this project is to restore the vegetation type that previously existed, to establish perennial vegetation comparable to nearby areas, or to revegetate with other native Owens Valley species. The site-specific goal for this area is 32% live perennial cover and a minimum of 3 native species (Hines Spring South Revegetation Plan 2015).

Progress to Date:

Per the Additional Mitigation Projects Developed by the MOU Ad Hoc Group, the timeline for implementing the Hines Spring South Revegetation Project was extended to three years post-implementation of the Additional Mitigation Projects. All of the Additional Mitigation Projects were implemented by Spring 2012. The Revegetation Plan for Hines Spring was completed and provided in LADWP's 2015 Annual Owens Valley Report. The 9-acre exclosure was fenced in 2015 per this plan. Initial response to exclusion of this area is positive as demonstrated by prolific native grasses in all but the southwestern corner of the site. Permanent vegetation transects were established in 2019. At that time, this site had 10% cover and 5 native perennial species. **This site has met the composition goal.**

Water Commitment:

None.

Current Status:

Project is implemented but cover goal has not yet been met. Composition goal has been met at this site.

20 Hines Spring Well 355 Project

Legal Reference: Additional Mitigation Projects Developed by the MOU Ad Hoc Group (MOU Section III.A.3), Second Amendment of Amended Stipulation and Order S1CVCV01-29768.

Project Goal:

The goal of the Hines Spring Well 355 Project is to create a minimum of one to two acres of ponded water or wetland/riparian vegetation in order to meet the 1991 EIR mitigation goal. The project is intended to restore flows to a portion of the spring channel system and an adjacent playa like area which would facilitate the re establishment of riparian, aquatic, and spring habitats, as well as sub-irrigation of pasture/meadow. There is to be no surface water connection to the adjacent Aberdeen Ditch Project.

Progress to Date:

LADWP produced and released an Initial Study (IS) and Mitigated Negative Declaration (MND) for the Additional Mitigation Projects for public review March 23-April 26, 2010. The Notice of Determination for the projects was filed June 1, 2010.

All construction required to implement and operate the project as proposed was complete by January 2012. During implementation, LADWP improved Well 355, installed a new powerline to properly power the well, installed a new pipeline, a new check structure, and built and reinforced a berm around the pipe outfall. Water was released to this project in January 2012.

Since implementation, multiple berms have been constructed near the pipe outfall to prevent flooding to the west, and to reduce ponding around the willow tree to ensure its survival. Most constructed berms failed; however, the most recent construction of the rock and earthen berm in late summer of 2014 has

been successful. Additional construction following implementation included a new fenced exclosure in 2014 which will be used to demonstrate the potential effects of domestic grazing on vegetation recruitment in and outside of the exclosure.

The following table depicts water supplied to the Hines Spring Well 355 Project since project implementation.

Year	Hines Well 355 Project Total Acre Feet (AF) Supplied
Project Target	**240**
2012-2013	240
2013-2014	235
2014-2015	207
2015-2016	203
2016-2017	184
2017-2018	229
2018-2019	221
2019-2020	221
2020-2021	219
Average	**218**

LADWP completed the required 5-year evaluation of the Additional Mitigation Projects in 2017. Although this project did not meet the annual water target every year during the five-year monitoring period, the project achieved the EIR mitigation goal (1-2 acres of ponded water and wetland/riparian vegetation). During the peak of the 2016 growing season, Inyo County conducted rapid assessment surveys and vegetation mapping of the project. These surveys resulted in 1.85 acres of wetland and 14.04 acres of meadow habitat (refer to tables below).

Additional planting or seeding throughout the majority of the project area is not necessary as recruitment of desirable species is vigorous, healthy, and diverse (particularly non woody herbaceous species).

Hines Spring Total Acreage of Wetland and Meadow Habitat, 2016 Rapid Assessment Surveys

Wetland Habitat	
Sub-Habitat	**Acreage**
Ditch	0.17
Marsh	1.03
Pond	0.03
Riparian Shrubs	0.19
Riparian Trees	0.43
Total Acreage	**1.85**

Meadow Habitat	
Sub-Habitat	**Acreage**
alkali meadow	6.77
alkali sacaton, sparse	3.7
Glycyrrhiza meadow	0.77
saltgrass meadow	0.13
wild rye meadow	2.67
Total Acreage	**14.04**

Notable recruitment of red willow seedlings and native herbaceous vegetation has established near the pipe outfall and the ditch. These areas are marked with vigorous growth of alkali sacaton (*Sporobolus airoides*), saltgrass (*Distichlis spicata*), salt heliotrope (*Heliotropium curassavicum*), beardless wildrye (*Leymus triticoides*), rabbit foot grass (*Polypogon monspeliensis*) and showy milkweed (*Asclepias speciosa*). Additionally, baltic rush (*Juncus balticus*), bulrush (*schoenoplectus spp.*), and monkeyflower (*Mimulus guttatus*) are abundant in the ditch channel. Bulrush and cattails continue to dominate the ponded areas. Meadows between the ponded areas have a high diversity of grass species and are well established over patches that were barren prior to project implementation.

However, broadleaved pepperweed (*Lepidium latifolium*) was observed in the meadow south of the fenced exclosure in 2015 and was hand treated with a backpack sprayer. This species was not observed in 2016 but was again observed and treated in 2020 and 2021. LADWP will continue to monitor and treat this new infestation as needed for eradication.

As of December 2020, although water is being supplied to the project as designed, the flooded extent/ irrigated acreage on the surface has retracted, likely due to sinkholes in the volcanics coupled with drought conditions. It is suspected that water is flowing into a sinkhole in the basalt as also occurs at the adjacent Aberdeen Ditch project.

Five Year Evaluation:

LADWP completed the required 5-year evaluation of the Additional Mitigation Projects in 2017. The evaluation was provided to the MOU Parties and the public as part of LADWP's 2017 Annual Owens Valley Report. In this evaluation, LADWP recommended discontinuing much of the annual photo point and other vegetation monitoring and mapping 5 years post implementation. Monthly flow monitoring will continue as well as periodic monitoring and treatment of invasive species. This information will continue to be provided in LADWP's annual report. No comments were received from any of the MOU Parties regarding the evaluation or proposed changes to project monitoring.

Project Photos:

Hines Spring Well 355 Project (November 2011) LADWP Erecting Powerline to Power Well 355

Hines Spring Well 355 Meadow Vegetation Near Exclosure (July 2015).

Pepperweed invasion within the fenced exclosure along Hines spring project ditch, May 4, 2020.

Water Commitment:

240 AF per the Additional Mitigation Projects Developed by the MOU Ad Hoc Group document and Second Amendment of Amended Stipulation and Order S1CVCV01-29768.

Current Status:

Water is supplied annually to this project. Monitoring for weed populations will continue as resources allow and treatment will follow if necessary. Flow monitoring will continue monthly and will be reported in LADWP's Annual Owens Valley Report. ***This project is implemented and ongoing.***

21 Homestead Project

Legal Reference: Additional Mitigation Projects Developed by the MOU Ad Hoc Group (MOU Section III.A.3), Second Amendment of Amended Stipulation and Order S1CVCV01-29768.

Project Goal:

The goal for this project is to utilize water from a new artesian well installed near artesian Well 044A and from existing multiple completion artesian Wells T774-T777 to create spring like habitat at the old Homestead site.

The spring habitat will increase the amount and diversity of vegetation cover, along with increasing the amount of wildlife and waterfowl in the area while providing the lessee with a consistent source of stock water.

Progress to Date:

LADWP produced and released an Initial Study (IS) and Mitigated Negative Declaration (MND) for the Additional Mitigation Projects for public review March 23 April 26, 2010. The Notice of Determination for the projects was filed June 1, 2010.

All construction required to implement and operate the project as proposed was complete by February 2012. During implementation, LADWP capped and piped flow from T774-T777, installed a stockwater trough, and began releasing water from the T774-T775 pipeline in October 2011. Additionally, LADWP drilled a new artesian well, installed a second pipeline from the new well, constructed a diversion on the main spring channel, and cut and burned saltcedar and Russian olive within the project area. Flow was released to the project from the second well and pipeline in February 2012.

Since implementation, preventing flows from reaching the Owens River has been continually problematic, as

the project as designed sends too much water into the lower pond from both well sources. As a consequence, LADWP re established an old irrigation ditch west of the fault and began sending much of the flow from the new artesian well south into an existing natural depression via a tee in the pipeline in 2013. The additional southern pond provides added habitat benefit to ducks and other waterfowl (see photo). This modification expanded the project's flooded acreage and open water habitat considerably and alleviates the pressure on the original lower pond and spring channels that abut the Owens River Road. Presently, flows exiting the pond via the north and south spring channels continue to be managed to prevent connectivity to the Owens River.

The following table depicts water supplied to the Homestead project since implementation. Although flows to the project have fluctuated a bit with drought conditions, the goals of the project have been met. The habitat within the main spring channel area is green, lush spring-like habitat. There is diverse riparian vegetation within the spring channel as well as along the channel banks. The pond downstream of this area is well established and has created suitable habitat for waterfowl which have been observed on numerous occasions utilizing the area.

Year	Homestead Project Total Acre Feet (AF) Supplied
Project Target	**300**
2012-2013	300
2013-2014	258
2014-2015	274
2015-2016	278
2016-2017	245
2017-2018	316
2018-2019	306
2019-2020	310
2020-2021	304
Average	**288**

Ditch maintenance is necessary periodically to remove obstructions from the channels to improve conveyance and to prevent connectivity to the Owens River. Saltcedar will continue to be monitored and treated as resources are available. LADWP may adaptively manage the timing of flows to this project in the future to manage cattail and tule encroachment in the spring channels and ponds. Periodic maintenance of the ponds may also be necessary. Flow monitoring will continue monthly and will be reported in LADWP's Annual Owens Valley Report.

Five Year Evaluation:

LADWP completed the required 5-year evaluation of the Additional Mitigation Projects in 2017. The evaluation was provided to the MOU Parties and the public as part of LADWP's 2017 Annual Owens Valley Report. In this evaluation, LADWP recommended discontinuing much of the annual photo point and other vegetation monitoring and mapping 5 years post implementation. Monthly flow monitoring will continue as well as periodic monitoring and treatment of invasive species. This information will continue to be provided in LADWP's annual report. No comments were received from any of the MOU Parties regarding the evaluation or proposed changes to project monitoring.

Water Commitment:

300 AFY per the Additional Mitigation Projects document and Second Amendment of Amended Stipulation and Order S1CVCV01-29768.

Current Status:

Water is provided annually to this project. Monitoring and treatment for saltcedar and Russian olive will continue for this project as resources allow. Flow monitoring will continue monthly and will be reported in LADWP's Annual Owens Valley Report. ***This project is implemented and ongoing.***

Project Photos:

Homestead Project (January 2012)
following Russian Olive and Saltcedar Eradication Burn

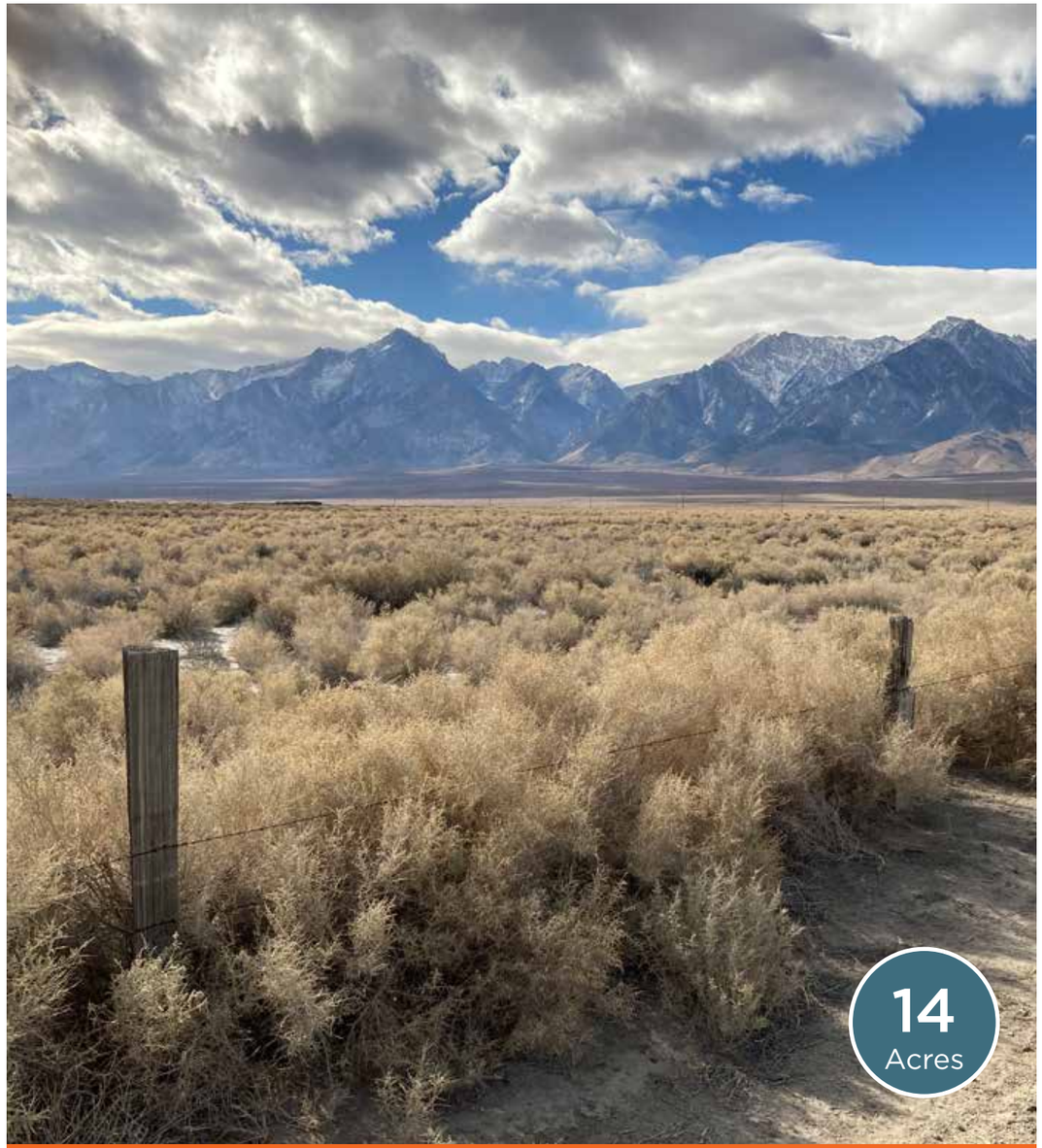
Homestead Project (August 2012)
Burn Area Revegetated with Native Grasses

Homestead Project, March 2012
Main Spring Channel Following Initial Flow Release

Homestead Project, July 2016
Main Spring Channel Five Years Post Implementation

Homestead Main Pond (July 2013).

South Homestead Pond (December 2020).



22 Independence 105 Revegetation Project

Legal Reference: 1991 EIR Impact 10-13	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-13: Increased groundwater pumping has significantly adversely affected approximately 60 acres of vegetation in the Symmes Shepherd well field area.	A revegetation program will be implemented for these effected areas utilizing native vegetation of the type that has died off. Water may be spread as necessary in these areas to accomplish the revegetation.

Project Goal:

This project contains a portion of the 60 acres required for revegetation under EIR Impact 10-13. The goal of this project is to restore the vegetation type that previously existed, to establish perennial vegetation comparable to nearby areas, or to revegetate with other native Owens Valley species. The site-specific goal for this area was 15% live perennial cover and a minimum of 3 native species (ICWD 1999).

Progress to Date:

This 14-acre site was fenced to reduce disturbance in 1999 and permanent vegetation transects were established in 2000. As of 2017, this site had attained the goals for cover and composition with 23% cover with 3 perennial species.

Project Photos:

IND105 Revegetation Site (July 2000).

IND105 Revegetation Site (November 2017).

Water Commitment:

None.

Current Status:

The goals of the project were met in 2017.
Project is complete.

23 Independence 123 Revegetation Project

Legal Reference: 1991 EIR Impact 10-13	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-13: Increased groundwater pumping has significantly adversely affected approximately 60 acres of vegetation in the Symmes Shepherd well field area.	A revegetation program will be implemented for these effected areas utilizing native vegetation of the type that has died off. Water may be spread as necessary in these areas to accomplish the revegetation.

Project Goal:

This project contains a portion of the 60 acres required for revegetation under EIR Impact 10-13. The goal of this project is to restore the vegetation type that previously existed, to establish perennial vegetation comparable to nearby areas, or to revegetate with other native Owens Valley species. The site-specific goal for this area was 15% live perennial cover and a minimum of 3 native perennial species.

Progress to Date:

This 28-acre site was fenced to reduce disturbance in 1999 and permanent vegetation transects were established in 2000. As of 2006, this site had attained the goals for cover and composition with 17% cover and 4 native perennial species.

Project Photos:

IND 123 Revegetation Site (July 2006)

IND 123 Revegetation Site (November 2020)

IND 123 Revegetation Site (June 2021)

Water Commitment:

None.

Current Status:

The goals of the project were met in 2006.
Project is complete.

24 Independence 131 Revegetation Project

Legal Reference: 1991 EIR Impact 10-13	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-13: Increased groundwater pumping has significantly adversely affected approximately 60 acres of vegetation in the Symmes Shepherd well field area.	A revegetation program will be implemented for these effected areas utilizing native vegetation of the type that has died off. Water may be spread as necessary in these areas to accomplish the revegetation.

Project Goal:

This project contains a portion of the 60 acres required for revegetation under EIR Impact 10-13. The goal of this project is to restore the vegetation type that previously existed, to establish perennial vegetation comparable to nearby areas, or to revegetate with other native Owens Valley species. The site-specific goal for this area was 15% live perennial cover and a minimum of 3 native perennial species.

Progress to Date:

This project contains a portion of the 60 acres required for revegetation under EIR Impact 10-13. Although the 1991 EIR identified only 23 acres in the IND 131 vegetation parcel, the 1999 Revegetation Plan identified 74.6 acres to be revegetated across both the IND 131 and IND 125 vegetation parcels. This revegetation site is segmented by Symmes Creek (IND 131 north, and IND 125 south). Both sides were fenced to reduce disturbance in 1999. Permanent vegetation transects were established in 2000. SAIC and MWH conducted dryland revegetation studies using various irrigation methods and planting techniques in 2003 and 2005. 25 acres were drill seeded with locally collected seeds in the spring of 2011. As of 2012, IND131N (north of Symmes Creek) had achieved 15% cover with 5 native perennial species, attaining the goals for cover and composition (15% cover and 3 perennial species).

Vegetation transects in IND131S (south of Symmes Creek, technically IND 125) were monitored in 2017. This portion of the site had 10% cover and 6 perennial species, meeting the composition requirement. This project has been fully implemented but the southern portion has not yet attained cover goals.

Project Photos:

Independence 131 Revegetation Site – north of Symmes Creek (June 2021)

Independence 131 Revegetation Site – south of Symmes Creek (June 2021)

Water Commitment:

None.

Current Status:

This project has been fully implemented and **has attained composition goals.** The portion north of Symmes Creek has also attained cover goals, but the southern portion has not. ***Project is fully implemented but has not attained all cover goals.***

25 Independence Ditch System

Legal Reference: 1991 EIR Impact 4-3	
1991 EIR Impact:	**Mitigation Measure/Provision:**
N/A	This project will provide water to a ditch through Independence. After passing through town, the unused water may supply irrigation water to the Independence Pasturelands and/or Independence Springfield enhancement/mitigation projects.

Project Goal:

The goal of this project is to provide water through a historic ditch through Independence. After passing through town, the unused water may supply irrigation water to the Independence Pasturelands and/or Independence Springfield enhancement/mitigation projects. This project will be supplied by Independence Creek and will have an estimated consumptive use of 725 AFY. A new well (W384) will be constructed as part of the project to replace water consumed by the project.

Progress to Date:

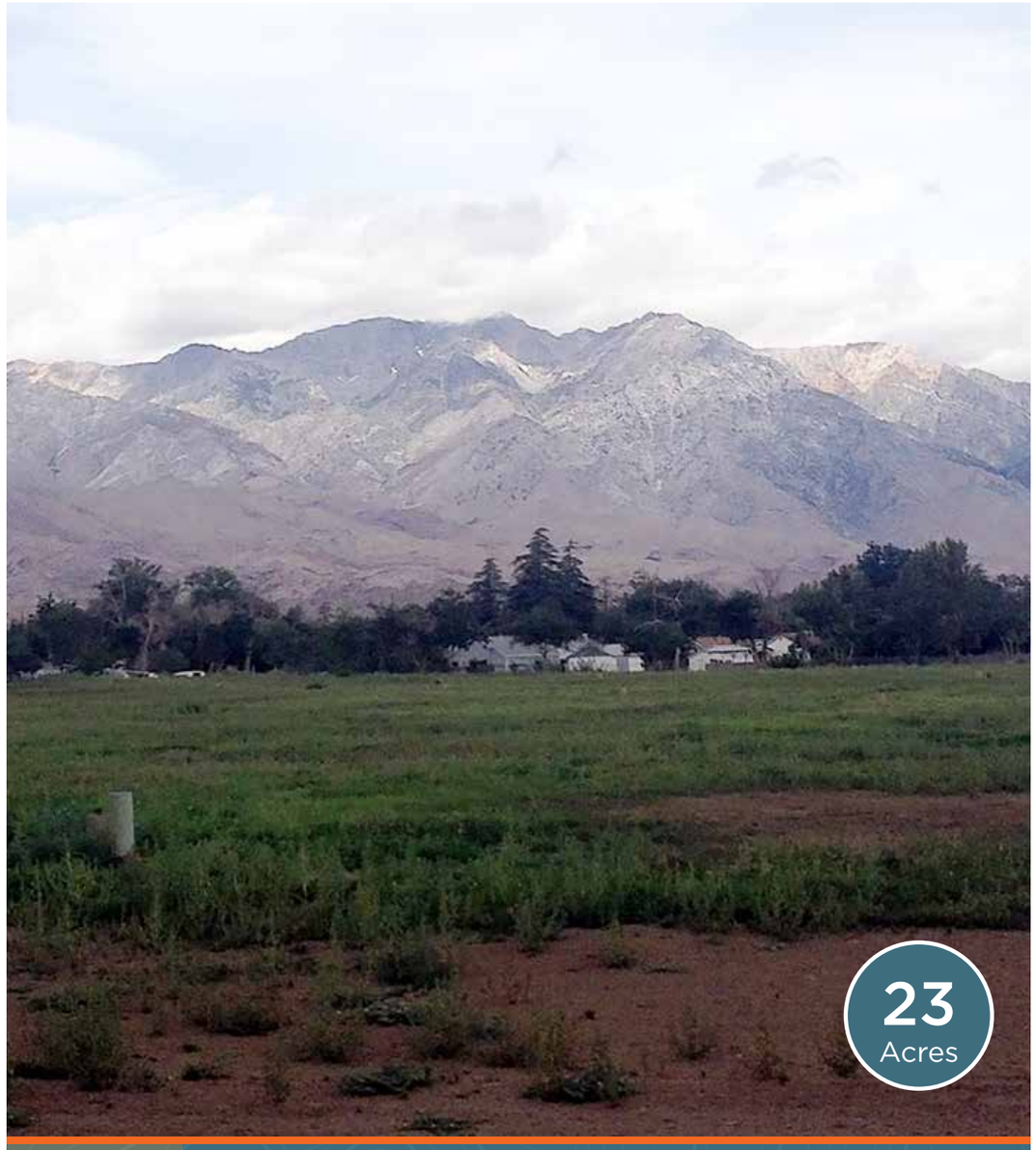
Scoping for this project first occurred in 1985. This project was implemented as an LADWP Enhancement/ Mitigation Project in 1987 as described. Water continues to be supplied annually to this project.

Water Commitment:

Estimated to be 725 AFY per the 1985 project scoping document and 1988 E/M Project Evaluation. Replacement water is received from W384 as described.

Current Status:

Water is supplied annually to the project. ***Project is implemented and ongoing.***



26

Independence East Side Regreening

Legal Reference: 1991 EIR Impact 10-11, 12-1, EIR Table 5-3	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-11: Fluctuations in water tables due to groundwater pumping have caused approximately 655 acres of groundwater dependent vegetation to die off. Loss of vegetation cover has occurred on these lands. 12-1: Significant impacts on air quality resulting from groundwater pumping during the period of 1970 to 1990 have occurred due to vegetation losses.	10-11: In the near future, two enhancement/ mitigation projects will be initiated to mitigate areas affected by groundwater pumping adjacent to the towns of Independence (east side regreening project) and Big Pine (northeast regreening project). Each project was originally planned to be approximately 30 acres of irrigated pasture. 12-1: As part of the Independence Pasturelands and Springfield enhancement/mitigation projects, approximately 730 acres of barren or near barren ground have been revegetated with either native pasture or alfalfa. This area was affected by groundwater pumping and surface diversions of water.

Project Goal:

The goal for this project is to enhance the aesthetics and regreen abandoned land adjacent to the residential area east of Independence. This will be achieved by establishing an irrigated pasture supplied with pumped groundwater from a new well. This new well also serves as a backup water supply for the town water system.

Progress to Date:

On September 28, 1988 the Standing Committee, based on a recommendation from the Technical Group, approved the Independence East Side Regreening Project Final Scoping Document. The Scoping Document, prepared by the Technical Group, defined the need to enhance the aesthetics of abandoned land adjacent to the residential area east of Independence.

LADWP circulated a Mitigated Negative Declaration (MND) for the Independence Eastside Regreening Project and Town Water System September 23-October 29, 2004. The LADWP Board of Water and Power Commissioners approved the project in May 2005. Following approval, Inyo County requested that three minor modifications to the project be made: (1) the project well to be located approximately 100 yards to the east of the originally proposed location, (2) that sprinkler irrigation be considered in place of flood irrigation, and (3) that a portion of the project area include stables and/or corrals. An amendment to the project scoping document that incorporates these changes was approved by the Standing Committee on April 23, 2009.

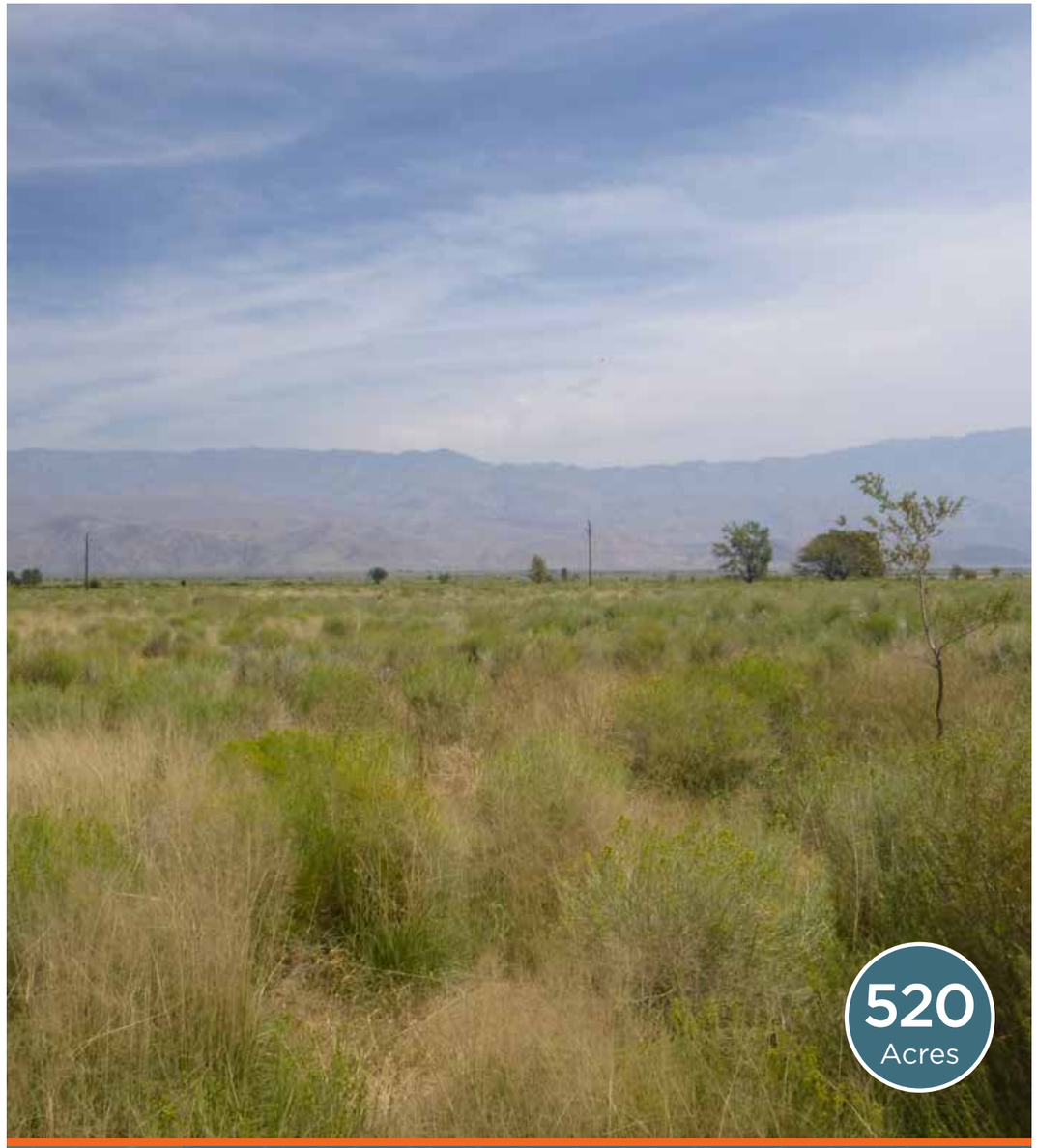
The well for this project was drilled in September 2012 and designated as well W423. Construction of the irrigation system for this project occurred during the Winter of 2013-2014. Implementation of this project was complete in Spring 2014. Water is supplied annually to the project for irrigation and the project is maintained by a lessee. Project is implemented and ongoing.

Water Commitment:

The water supply is 3 acre-feet per acre as is applied to other E/M irrigation projects. The irrigated portion of the project is 23 acres, thus the water commitment is 69 acre-feet per year.

Current Status:

Water is supplied annually to the project as required. ***Project is implemented and ongoing.***



27 Independence Pasturelands and Native Pasturelands

Legal Reference: 1991 EIR Impact 12-1, EIR Tables 4-3 and 5-3	
1991 EIR Impact:	**Mitigation Measure/Provision:**
12-1: Approximately 1,080 acres of formerly irrigated lands had not successfully revegetated following the abandonment of agriculture. This was a significant adverse impact because these lands had a loss of vegetation and were the source of blowing dust.	As part of the enhancement/mitigation projects implemented by LADWP and Inyo County since 1985, approximately 942 acres of these abandoned agricultural lands have been revegetated with irrigated pasture or alfalfa. These areas are the Independence Pasture and native pasture lands, the Van Norman and Richards Fields, and the Lone Pine Woodlot adjacent to Lone Pine.

Project Goal:

The goal of this project is to revegetate approximately 610 acres of abandoned agricultural lands east of Independence and provide water to native vegetation. An irrigation system will be connected to an existing ditch supplied by Independence Creek and a new well will be drilled at the site. Approximately 350 acres will be flood irrigated through a system of existing ditches; 260 acres of new pasture will be sprinkler irrigated during the first season, then flood irrigated thereafter.

Progress to Date:

These lands were removed from irrigation in 1964. LADWP prepared an Initial Study and Negative Declaration in March 1986. A Notice of Determination was filed in April 1986.

This project was implemented as an LADWP Enhancement/Mitigation Project 1987-1988. Approximately 520 acres are incorporated into the project per Figure 12-2 in the 1991 EIR rather than the 610 acres cited in the Negative Declaration due to referencing Figure 12-2 and issues with lease boundaries and other surface features. These lands have been converted to irrigated pastures or revegetated with native species. Water continues to be provided annually to this project for irrigation from W383, W384, W61, and W65.

Water Commitment:

The Inyo/Los Angeles Water Agreement provides that all enhancement/mitigation projects implemented between 1984 and 1990 will continue and will be supplied with an average of 30,000 AFY from enhancement/mitigation wells as necessary. Water is supplied to this project from W383, W384, W61, and W65.

Current Status:

Water is annually provided to this project as required. ***Project is implemented and ongoing.***

28 Independence Roadside Rest Area

Legal Reference: 1991 EIR Impact Tables 4-3 and 5-3	
1991 EIR Impact:	**Mitigation Measure/Provision:**
N/A	This project consisted of planting shade and windbreak trees and grass, installation of an irrigation system, and placement of a picnic table on a ½ acre site south of the town of Independence.

Project Goal:

The goal of this project is to reestablish trees and create a non-overnight roadside rest area immediately south of Independence that has deteriorated. The project consists of planting shade and windbreak trees and grass, installation of an irrigation system, and placement of a picnic table on a ½ acre site south of the town of Independence. The project is leased and maintained by Inyo County.

Progress to Date:

This project was implemented as an LADWP Enhancement/Mitigation Project in 1989. Water continues to be provided to the project for irrigation.

Water Commitment:

There is no water commitment from LADWP. Approximately 2 AFY was identified in the 1988 project scoping document, but this water is provided from the Independence Town Water System through a metered connection and paid for by Inyo County.

Current Status:

Complete.

29 Independence Springfield

Legal Reference: 1991 EIR Impact 10-11 and 12-1, EIR Tables 4-3 and 5-3	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-11: Fluctuations in water tables due to groundwater pumping have caused approximately 655 acres of groundwater dependent vegetation to die off. Loss of vegetation cover has occurred on these lands. 12-1: Significant impacts on air quality resulting from groundwater pumping during the period of 1970 to 1990 have occurred due to vegetation losses.	10-11: As part of the Independence Springfield and Woodlot enhancement/mitigation projects, approximately 317 acres of barren or near barren ground have been revegetated with either native pasture or alfalfa. This area was affected by groundwater pumping and surface diversions of water. 12-1: As part of the Independence Pasturelands and Springfield enhancement/mitigation projects, approximately 730 acres of barren or near barren ground have been revegetated with either native pasture or alfalfa. This area was affected by groundwater pumping and surface diversions of water.

Project Goal:

The goal of this project is to convert approximately 300 acres of sparsely vegetated land east of Independence to productive native pastureland by flood irrigation. The flood irrigation system will connect to both an existing ditch supplied by Independence Creek and a new well will be drilled at the site. Revegetation will also aid in reducing blowing dust.

Progress to Date:

LADWP prepared an Initial Study and Negative Declaration for this project in March 1986. A Notice of Determination was filed in April 1986. This project was implemented as an LADWP Enhancement/Mitigation Project in 1988 and irrigates 297 acres annually. Water continues to be provided annually to the project for irrigation.

Water Commitment:

The water commitment for this project is 1,485 acre-feet per year. The Inyo/Los Angeles Water Agreement provides that all enhancement/mitigation projects implemented between 1984 and 1990 will continue and will be supplied with an average of 30,000 AFY from enhancement/mitigation wells as necessary. Water is supplied to this project from W60, W65, W383, and W384.

Current Status:

Water is supplied annually to the project as required for irrigation. ***Project is implemented and ongoing.***

30 Independence Woodlot

Legal Reference: 1991 EIR Impact 10-11; EIR Table 4-3	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-11: Fluctuations in water tables due to groundwater pumping have caused approximately 655 acres of groundwater dependent vegetation to die off. Loss of vegetation cover has occurred on these lands.	As part of the Independence Springfield and Woodlot enhancement/mitigation projects, approximately 317 acres of barren or near barren ground have been revegetated with either native pasture or alfalfa. This area was affected by groundwater pumping and surface diversions of water.

Project Goal:

The goal of this project is to establish a wood lot on a sparsely vegetated area near Independence to provide fuelwood to the local community and mitigate blowing dust. Trees will be planted approximately 680 trees per acre and will be furrow irrigated.

Progress to Date:

The Independence Wood Lot project was originally scoped by the Technical Group in 1985 and was planted in 1987. The wood lot was planted at a high density with the intent of thinning to a 12-foot spacing after planting success was determined. Over time, this high density of trees resulted in reduced growth and increased competition. While the hybrid poplar portions of the wood lots have been harvested several times since project implementation, the locust portions of the wood lots were not harvested until 2015-2016. At that time, LADWP and CAL Fire conducted a significant thinning effort in both the Lone Pine and Independence Wood Lots resulting in approximately 130 cords of wood harvested and distributed to the Lone Pine Future Farmers of America (FFA), who holds the lease to both wood lots and manages the distribution of wood.

In Winter 2016-17, LADWP and CAL Fire continued thinning the Hybrid Popular and Black Locust tree portions of both wood lots, resulting in another 120 cords of wood harvested and distributed to the Lone Pine FFA. Maintenance of the wood lots continues as needed. Replanting efforts of the harvested portions of the Independence woodlot occurred in Spring 2017 with the planting of 675 Hybrid Popular pole plantings.

Water Commitment:

The water supply for this project is associated with the Independence Springfield and Pastureland projects. The woodlot covers 20 acres and receives 100 AFY.

Current Status:

Water is supplied annually to the project for irrigation. ***Project is implemented and ongoing.***

31 Klondike Lake Aquatic Habitat

Legal Reference: 1991 EIR Impact 10-5 and 11-1	
1991 EIR Impact:	**Mitigation Measure/Provision:**
Changes of surface water management practices and increased groundwater pumping have altered the habitats on which wildlife depends. Vegetation changes have been significant in many locations throughout the Valley. Therefore, impacts to certain species of wildlife, which were entirely dependent upon the impacted habitat, can be presumed to be significant.	The importance of riparian, marsh and aquatic habitats is recognized for mitigation of the impacts to wildlife that occurred during the 1970 to 1990 period. Wetter habitats support many more species and greater populations of wildlife; therefore, water management to create wet habitats will be used to mitigate the significant adverse impacts of the project.

**Also noted in EIR Tables 4-3, 5-2 and 5-3.*

Goal of Project:

The goal of this project is to provide water into an alkali sink approximately 160 acres in size and maintain lake level for waterfowl habitat and hunting in the winter and various water sports in the summer. A diversion will be constructed in the Big Pine Canal to provide a reliable water supply to the lake via Lyman Ditch. Water measuring devices will be installed at the Lyman headgate and on the Klondike Drain at the Owens River. A well will be drilled to provide replacement water.

Progress to Date:

The Inyo/Los Angeles Standing Committee adopted the Klondike Lake Enhancement/Mitigation Project in 1986. Prior to the implementation of the E/M project in 1986, this alkali sink was intermittently filled with water from the Owens River via the Big Pine Canal and Lyman Ditch. Under the E/M project, the lake level has been maintained year-round via water releases from these same sources.

The Klondike Lake Project was described in its 1986 negative declaration as:

> *Maintain the lake level via a water supply from the Big Pine Canal that will vary between summer and winter, and release water from the existing headgate on the south shoreline to a native habitat area to provide nesting and feeding areas for waterfowl. The roadway into the lake would also be improved.*
>
> *An additional benefit of this project is the sub-irrigation of a plot of native pasture adjacent to the ditch which brings the water from the Big Pine Canal to the lake.*
>
> *Providing a firm water supply to the lake will enhance the attractiveness of the facility for recreation as well as improve waterfowl nesting and feeding habitat.*

The negative declaration provided for a supply of water to the project from the Big Pine Canal via Lyman Ditch. Water not used by the project would be conveyed from the project to the Owens River via the Klondike Drain. Peak flow was estimated to be 5 cfs and the annual amount of water used by the project was estimated to be 3 cfs, or 2,220 AFY.

Due to prolonged drought that began in 1987, Inyo County and LADWP agreed through annual operations programs to reduce the annual supply of water to the Klondike Lake Project by varying amounts. Beginning in 1999, a 500 AF reduction was specified and adopted in the operations plan and was continued through the 2002-2003 runoff year. Average use for the Klondike Lake Project was 1,775 AFY from 1990-1994.

In late 1994-1995, LADWP rechannelized portions of Lyman Ditch to reduce obstructions and conveyance losses. Diversion structures were installed along the ditch to maintain water releases to areas of native pasture and wetland habitats adjacent to the ditch. This rechannelization and maintenance work effectively reduced conveyance losses by over 200 AFY. Average use for the project from 1995-2001 was 1,499 AFY.

In 2003, in concurrence with changes to the Water Agreement and the adoption of the Big Pine Ditch System MND, the Standing Committee approved a permanent reduction in the water allocation to the Klondike Lake Project (2,200 AFY to 1,700 AFY). As modified, three components of the project will be supplied with water as follows:

1. From approximately May to September, a varying amount of water will be supplied (as was done during 1995-2001) to maintain areas of native pasture and wetland habitats adjacent to the Lyman Ditch;
2. From approximately May to September, a varying amount of water will be supplied, as necessary to maintain the level of Klondike Lake within 10 inches of the mid-elevation demarcation of the West Headgate Watermann Gate disc (as was done during the period from 1995 to 2001); and
3. Release of a flow up to 200 AFY as necessary to maintain habitat to the native habitat area to promote nesting and feeding areas for waterfowl and to maintain habitat in the Klondike drain ditch.

Water is currently provided to the project annually as described above.

Klondike incurs high recreational use in the summer months for water sports. As a consequence, LADWP began providing boat inspections for Klondike Lake to detect nonnative quagga and zebra mussels in 2009. LADWP offers these inspections free to the public from Memorial Day to Labor Day and they have been effective in preventing these mussels from being introduced into LA's water system thus far.

Water Commitment:

Between 1970 and 1984, LADWP committed approximately 10,000 AFY to implement and maintain a series of environmental projects. This volume includes the supply for this project. Currently, an average of approximately 1,700 AFY is allotted for the project per the 2003 Amendment to the Water Agreement for the Big Pine Ditch System (formerly 2,200 AFY). Of this, 1,500 AF is allocated for conveyance and lake level maintenance and up to 200 AF for the Klondike Lake South Shore Habitat Area (SSHA).

Current Status:

Water is supplied annually to the project as required. ***Project is implemented and ongoing.***

32 Klondike South Shore Habitat Area

Legal Reference: Mitigated Negative Declaration for the Big Pine Ditch System (2003) and 2003 Modification to the Klondike Lake E/M Project (through Standing Committee).

Goal of Project:

The goal of this project is to provide foraging habitat for migrating waterfowl and shorebirds in the spring and fall, and potential nesting habitat for summer resident waterfowl and shorebirds.

Progress to Date:

The Klondike Lake E/M Project was originally adopted in 1986 by the Standing Committee. This project was modified in 2003 to allow for a release of up to 200 AFY to a native habitat area to the southwest of the lake to promote nesting and feeding areas for waterfowl and to maintain habitat in the Klondike drain ditch. This 25-acre area is referred to as the Klondike South Shore Habitat Area (SSHA). Modification of the Klondike Lake E/M Project specified that the Technical Group will conduct test releases to determine the amount of flow that must be released from the two existing headgates on the south side of Klondike Lake to maintain the habitat. The Technical Group will also determine the schedule for the releases of up to 200 AFY.

In 2004, the Inyo/Los Angeles Technical Group began developing a plan for test releases to the SSHA. A new diversion and 1,100' of pipeline were installed and implementation of the test releases for waterfowl habitat south of the lake began in May 2005. Delivery and measurement of the total allocation of up to 200 AF to the south was problematic from the beginning because of the low hydraulic gradient between the lake and the waterfowl habitat areas as well as sand accumulation in this area.

An alternate water release location was utilized starting in 2012. In March 2015, LADWP disked the tules in the habitat area that had resulted from multiple years of flooding throughout the growing season to increase the amount of shallow flooding acreage available for migrants. The area was flooded early in the 2015 season (April 2015) to benefit spring migrants and to prevent regrowth of tules. These tule reduction efforts maximized the shallow flooded area and associated wildlife benefit for the project, even with less water available under drought conditions. Refer to the following table for total acre feet released to the Klondike SSHA since the implementation of the project.

Klondike SSHA Total Flows 2005-2020

Year	Volume	Timing of Flows
2005	116	May-October
2006	130	April -December
2007	99	April- September
2008	89	April- November
2009	79	May-September
2010	92	May-September
2011	204	May-September
2012	258	May-July
2013	184	June-August
2014	53	June-August
2015	8	April
2016	68	April-May; September-October
2017	16*	May; August-September
2018	40	April-May; September-October
2019	49*	April-May; October-November
2020	32	April-May; October

**2017 and 2019 runoff years provided additional water spread in the project area that is unaccounted for toward the up to 200 AF for the project.*

LADWP has seen great benefit from only flooding in the spring and fall rather than throughout the entire growing season as was done for several years. The SSHA is productive for wildlife at these times and this does not result in repetitive maintenance of clearing tules from the area every few years. Additionally, wildlife use of the SSHA is affected during times of high summer recreation of Klondike Lake (May-August), therefore flooding during these months is less beneficial for multiple reasons.

LADWP will continue to operate this project by releasing spring flows as early as April (depending on Klondike Lake level and operational flexibility) and monitoring the site to ensure that the desired area remains shallow flooded through May. A second flow will be released in the fall in years when water is available for the project.

Water Commitment:

Up to 200 AFY per the Big Pine Ditch System MND (2003) and Modification to the Klondike Lake E/M Project.

Current Status:

Water is supplied annually to the project as required. ***Project is implemented and ongoing.***

33 LAWS 118 Revegetation Project

19 Acres

Legal Reference: Irrigation Project in the Laws Area Mitigated Negative Declaration (Laws Type E Transfer), 2003 Laws Revegetation Plan

Project Goal:

Per the 2003 Laws Revegetation Plan, this project requires native revegetation of the 19-acre portion of LAW118 (in addition to acreage required under 1991 EIR) with 10% cover and eight native species.

Progress to Date:

The 19acre portion of LAW118 covered in the Laws 2003 Plan surrounds vegetation parcel LAW129 on its western, northern, and eastern sides. Approximately 8,000 plants were planted in this parcel from 2008 to 2015. Overplanting or seeding in this parcel will continue as necessary until goals are met.

Water Commitment:

There is no water commitment for this project.

Current Status:

Initial planting is complete but the area has not yet achieved success criteria. Overplanting or seeding in this parcel will continue as necessary until goals are met. ***Project is fully implemented but has not yet attained goals.***

34 LAWS 129 Revegetation Project

Legal Reference: Irrigation Project in the Laws Area Mitigated Negative Declaration (Laws Type E Transfer), 2003 Laws Revegetation Plan

Project Goal:

Per the 2003 Laws Revegetation Plan, this project requires native revegetation of 47 acres of abandoned agriculture land with 10% cover and eight native species.

Progress to Date:

A drip irrigation system is fully installed at this site. Approximately 26,000 plants were planted in this parcel from 2008 to 2018. Initial planting in this parcel was 100% complete by Fall 2015, and in fall 2018, LADWP overplanted approximately 6,000 native plants to fill in remaining inner spaces. Growth and persistence at this site are promising, and as of Fall 2019, the site has approximately 6% cover and 6 native perennial species onsite. Overplanting in this parcel will occur as necessary to achieve goals.

Project Photos:

LADWP operates and maintains two commercial greenhouses for Owens Valley Revegetation efforts, which are capable of producing up to 18,000 native plants twice per year.

Four wing saltbush seedling (Atriplex canescens) from LADWP greenhouse.

LADWP Watershed Resources and Construction staff planting at LAW129 in October 2015.

Water Commitment:

There is no firm water commitment for this project. However, LADWP supplies temporary water to this site through drip irrigation. Once success criteria is met, this irrigation will cease.

Current Status:

Initial planting is 100% complete but the area has not yet achieved success criteria. Overplanting in this parcel will occur as necessary to achieve goals. Project is fully implemented but has not yet attained goals. achieved success criteria. Overplanting or seeding in this parcel will continue as necessary until goals are met. ***Project is fully implemented but has not yet attained goals.***

35 LAWS 027 (Native Seed Farm)

Legal Reference: Irrigation Project in the Laws Area Mitigated Negative Declaration (Laws Type E Transfer), 2003 Laws Revegetation Plan

Project Goal:

Per the Laws Type E Transfer MND (Irrigation Project in the Laws Area), this project requires LADWP to initiate a native seed farm for use on Owens Valley revegetation projects at the Laws 027 parcel.

Progress to Date:

The seed farm was initiated in 2004 and is irrigated through sprinkler and drip irrigation systems. Additionally, LADWP operates two greenhouses near their Bishop Office to grow approximately 18,000 native plants biannually for the seed farm and other revegetation efforts.

Portions of the Seed Farm are currently well established and are producing viable seed from native grasses and shrubs. Approximately 40 acres of drip irrigation was hand seeded with Ericameria nauseosa and 2 acres of land without irrigation was drill seeded with a native upland scrub mix in winter of 2015. LADWP completed initial planting of the Laws Native Seed Farm in Spring 2017 by outplanting approximately 10,500 native plants at the site. LADWP overplanted an additional 6,000 plants at the site in Fall 2017. Survivability monitoring of outplantings to date at this site was performed in Fall 2018; at that time, plant survivorship equated to 64%.

In the spring of 2018, 15 acres of the sprinkler irrigation area were drill seeded with Indian ricegrass (*Achnatherum hymenoides*). Success was low, possibly due to timing of the seeding and competition from existing weedy growth. In the spring of 2019, the area was mowed and disked to prepare a clean seed bed for seeding. When temperatures were appropriate, the area was again drill seeded at 30lbs/acre and irrigation commenced. The Indian ricegrass germinated quickly and began to grow, putting on seed early in the season. However, the area became very weedy and the ricegrass was outcompeted. A trial application of herbicide was applied but was largely unsuccessful. In Fall 2019, LADWP applied additional herbicide to this site, which was largely successful at controlling weedy species. The Indian ricegrass thrived in 2020.

This site will be overseeded/planted until the parcel has adequate cover to supply native seed and mitigate blowing dust. There is no specific cover and composition criteria for this site.

Project Photo:

Grass portion of Laws Native Seed Farm (August 2017)..

Water Commitment:

There is no firm water commitment for this project, but approximately 200 AFY is supplied from Coldwater Canyon to supply irrigation at this site. This site will be irrigated in perpetuity under legal agreement.

Current Status:

This site will be overseeded/planted until the parcel has adequate cover to supply native seed and mitigate blowing dust. ***Project is fully implemented but has not yet achieved goals.***

36 LAWS 90 Revegetation Project

Legal Reference: Irrigation Project in the Laws Area Mitigated Negative Declaration (Laws Type E Transfer), 2003 Laws Revegetation Plan

Project Goal:

Per the 2003 Laws Revegetation Plan, this project requires native revegetation of 101 acres of abandoned agriculture land with 10% cover and 10 ten native species.

Progress to Date:

A drip irrigation system is fully installed at this site and initial planting in this large parcel is 100% complete. Approximately 87,000 plants were planted in this parcel from 2008 to 2020.

In 2014 and 2015, LADWP implemented a series of demonstration projects at Laws 90 including pre-emergent weed control, sand fencing, hay bale placement, exclusionary fencing, and mulch application. These techniques had not been attempted at Laws, in combination with other treatments, or were attempted at a different scale on other sites. Knowledge gained from these demonstration projects have helped guide subsequent revegetation efforts in the Laws area. All of Laws 90 was overplanted in 2016 with approximately 26,400 additional plants filling in all emitter basins with either new or established live plants. LADWP overplanted this site again in Fall 2020 with an additional 16,000 plants.

Survivability monitoring of outplantings to date at this site was performed in Fall 2018; at that time, plant survivorship equated to 74%. As of Fall 2019, the site has approximately 6% cover and 7 native perennial species onsite. Overplanting in this parcel will continue as necessary until goals are met.

Project Photos:

LADWP uses protective cages anchored by stakes to protect new plantings from rodent herbivory (LAW090, April 2014).

LAW090 (same area as left), January 2018.

Hay bales were placed at Laws 90 parcel prior to planting to break up wind shear and protect seedlings as a demonstration project in 2014.

LAW090, hay bale area, January 2018.

Water Commitment:

There is no firm water commitment at this site. However, LADWP temporarily supplies water to this site through drip irrigation. Once success criteria is met, this irrigation will cease.

Current Status:

Initial planting across all 101 acres is 100% complete, but the site has not yet achieved success criteria. Overplanting in this parcel will continue as necessary until goals are met. ***Project is fully implemented but has not yet attained goals.***

37 LAWS 94 Revegetation Project

Legal Reference: Irrigation Project in the Laws Area Mitigated Negative Declaration (Laws Type E Transfer), 2003 Laws Revegetation Plan

Project Goal:

Per the 2003 Laws Revegetation Plan, this project requires native revegetation of 40 acres of abandoned agriculture land with 10% cover and ten native species.

Progress to Date:

The Initial planting for the entire parcel was complete in Fall 2013. This parcel was formerly a combination of buried and aboveground drip irrigation systems; as of spring 2018, LADWP replaced all remaining above ground drip line with new buried drip irrigation lines. Approximately 38,000 plants were planted in this parcel from 2008 to 2019. LADWP seeded the (former) above ground drip portion in 2015/2016 but had little success with germination. Survivability monitoring of outplantings to date at this site was performed in Fall 2018; at that time, plant survivorship equated to 71%. In the spring of 2019, approximately 15,000 native plants were overplanted at this site. Initial planting across all 40 acres is 100% complete, but the site has not yet achieved success criteria.

As of Fall 2019, the site has approximately 2% cover and 8 native perennial species onsite. Overplanting in this parcel will continue as necessary until goals are met. Project is fully implemented but has not yet attained goals.

Project Photo:

LADWP Watershed Resources Staff secures a stake and protective cage around the native seedling at LAW094.

Water Commitment:

There is no firm water commitment at this site. However, LADWP temporarily supplies water to this site through drip irrigation. Once success criteria is met, this irrigation will cease.

Current Status:

Initial planting across all 40 acres is 100% complete, but the site has not yet achieved success criteria. Overplanting in this parcel will continue as necessary until goals are met. ***Project is fully implemented but has not yet attained goals.***

38 LAWS 95 Revegetation Project

Legal Reference: Irrigation Project in the Laws Area Mitigated Negative Declaration (Laws Type E Transfer), 2003 Laws Revegetation Plan

Project Goal:

Per the 2003 Laws Revegetation Plan, this project requires native revegetation of 46 acres of abandoned agriculture land with 10% cover and ten native species.

Progress to Date:

Initial planting for the entire parcel was complete in Fall 2013. This parcel was formerly a combination of buried and aboveground drip irrigation systems; as of Spring 2018, LADWP replaced all remaining above ground drip line with new buried drip irrigation lines. Approximately 43,500 plants were planted in this parcel from 2008 to 2019. LADWP seeded the (former) above ground drip portion in 2015/2016 but had little success with germination. Survivability monitoring of outplantings to date at this site was performed in Fall 2018; at that time, plant survivorship equated to 63%. In the fall of 2019, approximately 9,000 native plants were overplanted at this site. Initial planting across all 46 acres is 100% complete, but has not yet achieved success criteria.

As of Fall 2019, the site has approximately 3% cover and 6 native perennial species onsite. Overplanting in this parcel will continue as necessary until goals are met. Project is fully implemented but has not yet attained goals.

Project Photo:

LAW095 Revegetation Site (June 2021).

Water Commitment:

There is no firm water commitment at this site. However, LADWP temporarily supplies water to this site through drip irrigation. Once success criteria is met, this irrigation will cease.

Current Status:

Initial planting across all 46 acres 100% complete, but has not yet achieved success criteria. Overplanting in this parcel will continue as necessary until goals are met. ***Project is fully implemented but has not yet attained goals.***

39 Laws Area Revegetation Project

Legal Reference: 1991 EIR Impact 10-18	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-18: Significant adverse vegetation decrease and change have occurred in the Laws area due to a combination of factors, including abandoned agriculture, groundwater pumping, water spreading in wet years, livestock grazing, and drought.	Approximately 140 acres will be revegetated within the Laws area, which has lost all or part of its vegetation cover due to increased groundwater pumping or to abandonment of irrigation operations to supply the second aqueduct.

Project Goal:

The goal of this project is to restore the vegetation type that previously existed, to establish perennial vegetation comparable to nearby areas, or to revegetate with other native Owens Valley species. The site-specific goal for this area is 10% live perennial cover and 8 native species per guidance in the 1999 Revegetation Plan.

Progress to Date:

This site was fenced to reduce disturbance in 1998. Permanent transects were established in 1999. Dryland revegetation studies examining various planting and watering techniques were conducted in a portion of LAWS 118 by SAIC and MWH Americas in 2003 and 2004. In 2004, the above ground drip irrigation system was expanded and seed was planted at all emitters. The above-ground irrigation system was moved to a new area in 2005 and seed was planted at the new emitters at that time. In 2005, MWH conducted a soil microbial study at the site. In Spring 2011, 18 acres were seeded with locally collected seeds. In 2012, a buried drip system was installed at this site over approximately 30 acres. New fencing was installed in 2013 on the west side of the project area along the new boundary with the Cashbaugh Lease established in the Laws Type E transfer. Approximately 46 acres between shrubs (interspaces) was drill seeded at 10lbs/acre using native shrub seed mix during Winter 2015/2016. During high runoff years (2017 and 2019), LADWP spread excess water from the Lower McNally Canal to the LAW118 parcel west side of Laws Poleta Road to jumpstart germination from the 2015/2016 seeding efforts.

In the fall of 2018, approximately 11,000 plants were outplanted across 30 acres on the east side of the parcel. LADWP intends to inject buried drip irrigation and plant out 15 acres of this parcel directly east of Laws/Poleta Road in 2021; this area was previously irrigated above ground and had been seeded multiple times with limited success.

Permanent vegetation transects were read in 2019. The parcel has achieved 5.5% cover with 15 native perennial species. **The composition goal has been met.** This site will continue to be monitored once every five years until it has met success criteria. This project is fully implemented but has not yet attained cover goals.

Project Photo:

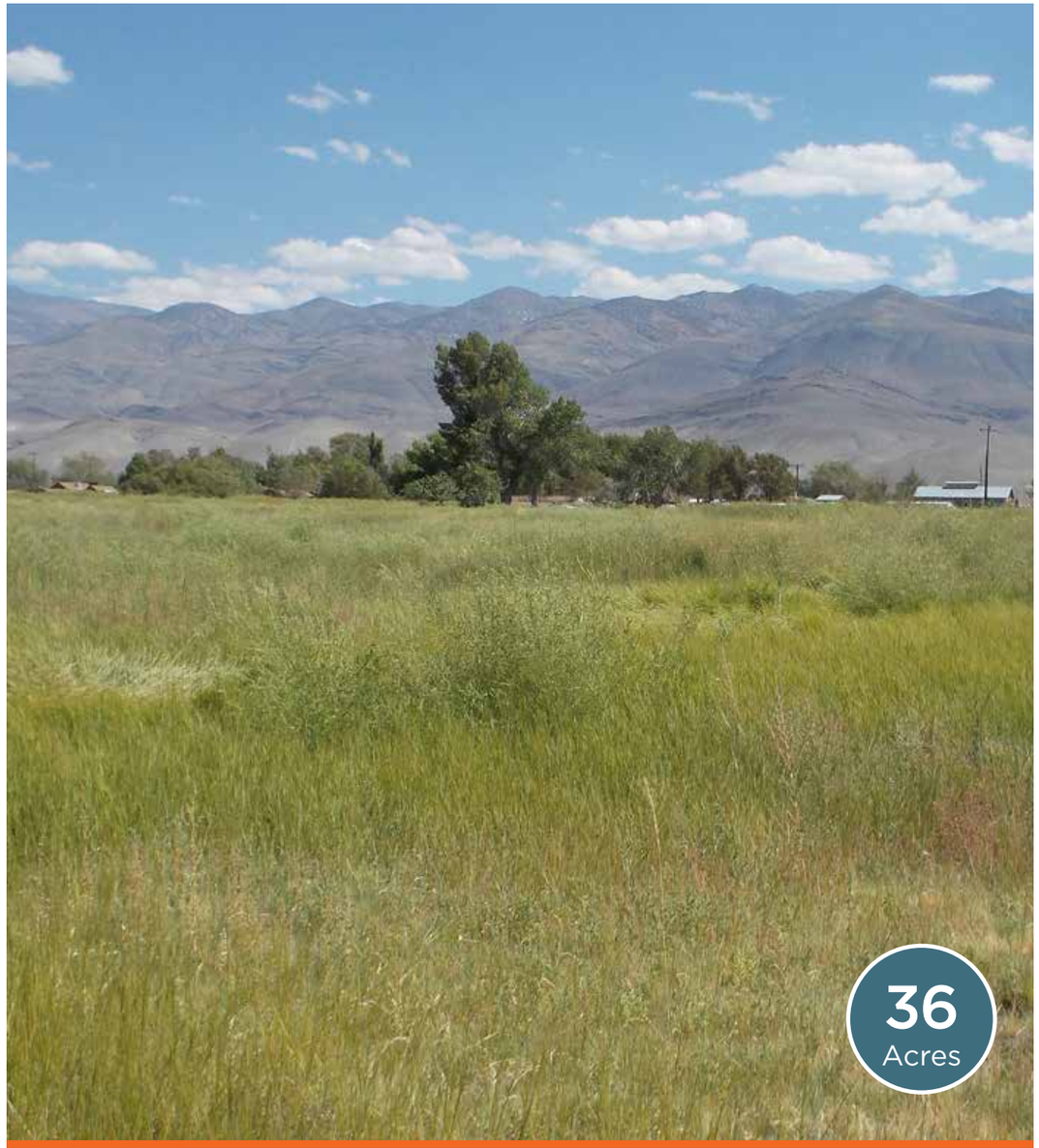
Laws Area Revegetation Project (October 7, 2021). This portion of the project area was planted in Fall 2018.

Water Commitment:

There is no water commitment at this site. However, LADWP temporarily supplies water to a portion of this site through drip irrigation. Once success criteria is met, this irrigation will cease.

Current Status:

This site will continue to be monitored once every five years until it has met success criteria. ***Project is implemented but has not yet attained cover goals. This site has reached composition goals.***



40 Laws Historical Museum Pasturelands

Legal Reference: 1991 EIR Impact 10-18	
1991 EIR Impact:	**Mitigation Measure/Provision:**
Significant adverse vegetation decrease and change have occurred in the Laws area due to a combination of factors, including abandoned agriculture, groundwater pumping, water spreading in wet years, livestock grazing, and drought.	In the mid-1980s, LADWP and Inyo County implemented the Laws-Poleta Pasture Land, Laws Museum, and McNally Ponds enhancement/ mitigation projects in the Laws area totaling approximately 541 acres of pasture land.

**Also noted in EIR Table 5-3*

Project Goal:

The goal of this project is to improve a native vegetated area adjacent to Laws Museum and provide a windbreak of trees to improve the visual aesthetics of the area. 15 acres of pastureland are located east of the museum and 21 acres are located west of the museum.

Progress to Date:

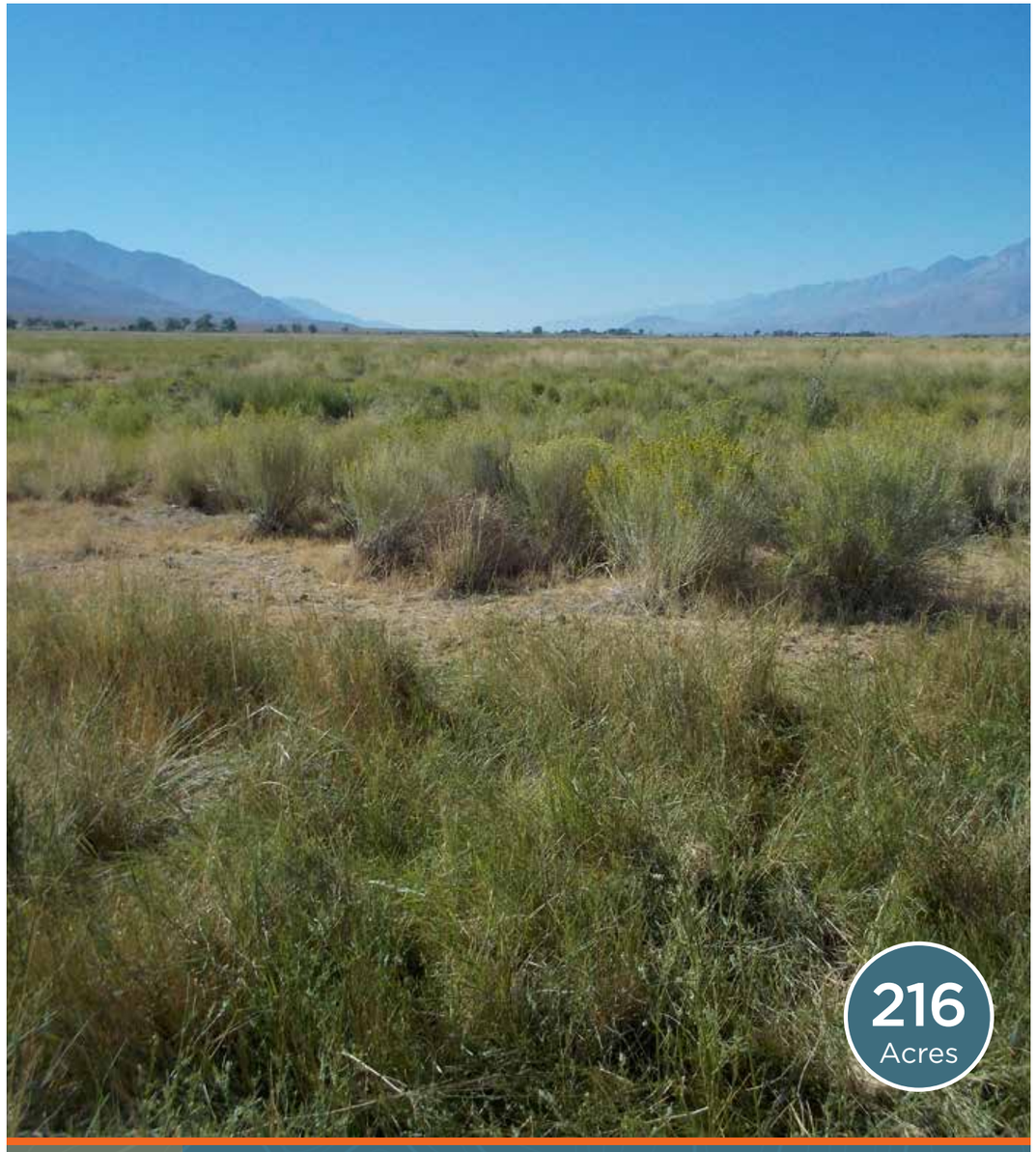
This project was originally scoped in 1986 and was implemented as an LADWP Enhancement/Mitigation Project in 1990. The project was originally scoped to allow for 105 AF for the 21 acre parcel and the 15 acre parcel to be supplied water from a private well. The water commitment to the project was modified as part of the Irrigation Project in the Laws Area (Laws Type E Transfer) in 2003 to supply 108 AFY to all 36 acres through sprinkler irrigation from W413. Both pastures are currently supplied with water from W413.

Water Commitment:

108 AFY per the Laws Type E Transfer (2003). Water is supplied to this project from W413 for sprinkler irrigation.

Current Status:

Water continues to be provided annually to this project for irrigation. ***Project is implemented and ongoing.***



41 Laws/Poleta Native Pasture

Legal Reference: 1991 EIR Impact 10-18	
1991 EIR Impact:	**Mitigation Measure/Provision:**
Significant adverse vegetation decrease and change have occurred in the Laws area due to a combination of factors, including abandoned agriculture, groundwater pumping, water spreading in wet years, livestock grazing, and drought.	In the mid-1980s, LADWP and Inyo County implemented the Laws-Poleta Pasture Land, Laws Museum, and McNally Ponds enhancement/ mitigation projects in the Laws area totaling approximately 541 acres of pasture land.

**Also noted in EIR Tables 4-3 and 5-3*

Project Goal:

The goal of this project is to provide water for irrigation of 216 acres of sparsely vegetated land to reestablish native vegetation on abandoned pasture lands and to increase livestock grazing capabilities. 160 acres is located north of Laws east of Highway 6. An additional 60 acres is located east of Laws. Water will be supplied from the Upper McNally Canal. This canal will be filled with well water except in years of above average runoff and will be kept dry west of Highway 6. Two new wells will be drilled easterly of Highway 6 as part of this project to supply water to the canal.

Progress to Date:

LADWP prepared and Initial Study and Negative Declaration in November 1986 for the project. The Notice of Determination was filed in December 1986. This project was implemented as an LADWP Enhancement/Mitigation Project in 1988 as described. Water is supplied annually to this project.

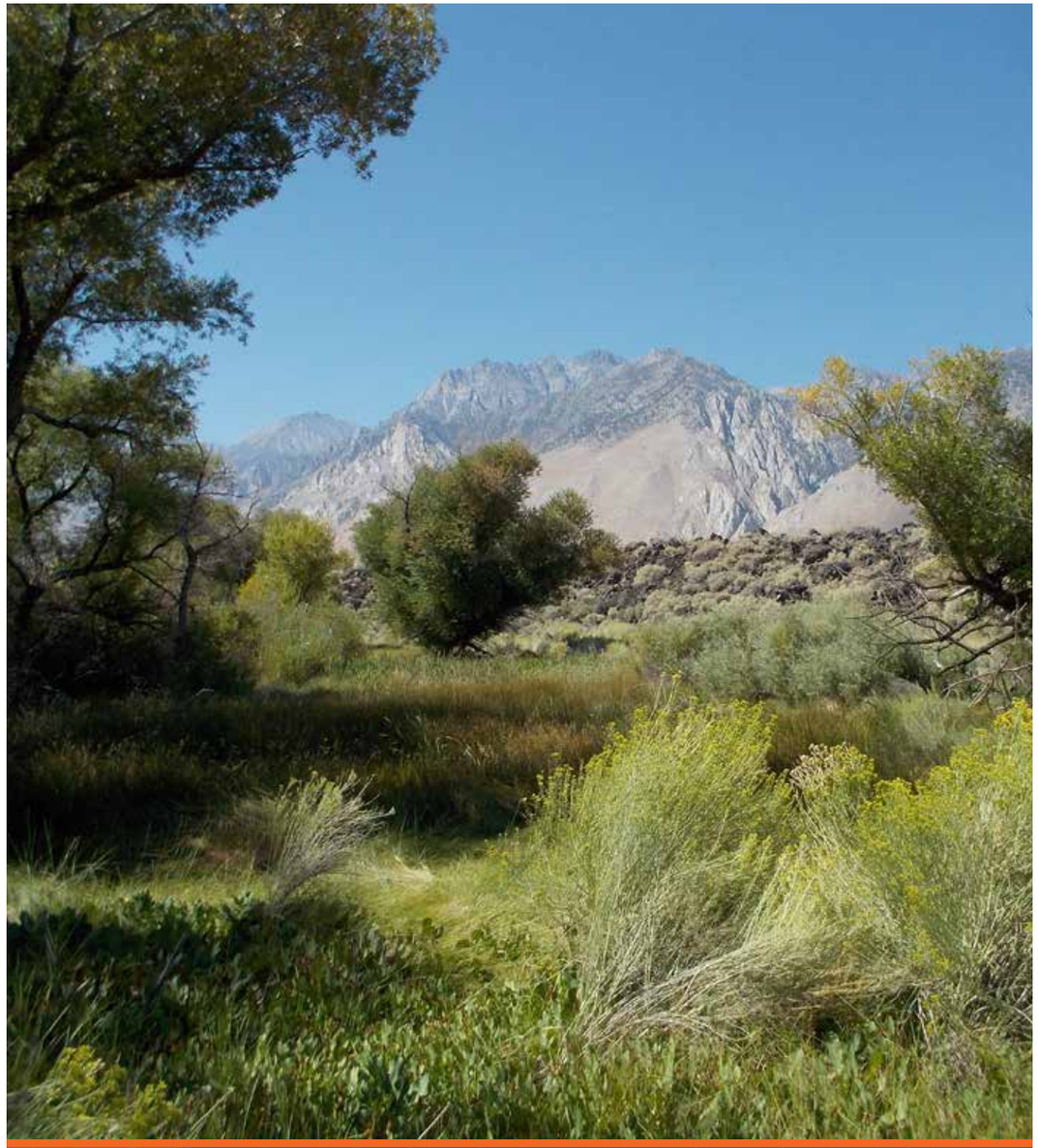
Water Commitment:

The Initial Study document has a mix of projects included in the description, but the water commitment breaks down to 3 acre-feet per acre for the native pastureland areas described in the Initial study. The water allotment for this project is approximately 630 acre-feet per year.

The Inyo/Los Angeles Water Agreement provides that all enhancement/mitigation projects implemented between 1984 and 1990 will continue and will be supplied with an average of 30,000 AFY from enhancement/mitigation wells as necessary. Water is supplied to the project from multiple enhancement/mitigation wells in the Laws area via the McNally Canals.

Current Status:

Water continues to be provided annually to this project for irrigation. ***Project is implemented and ongoing.***



42 Little Blackrock Springs

Legal Reference: 1991 EIR Impact 10-14	
1991 EIR Impact:	**Mitigation Measure/Provision:**
Increased groundwater pumping has reduced or eliminated flows from Fish Springs, Big and Little Seely Springs, Hines Spring, Big and Little Blackrock Springs, and Reinhackle Spring. This has caused significant adverse impacts to vegetation at several of these spring areas.	LADWP will continue to supply water from Division Creek to the site of the former pond at Little Blackrock Springs. The marsh vegetation at this site will thus be maintained.

**Also noted in EIR Table 5-2.*

Project Goal:

The goal of this project is to maintain marsh vegetation at Little Blackrock Springs through surface water from Division Creek.

Progress to Date:

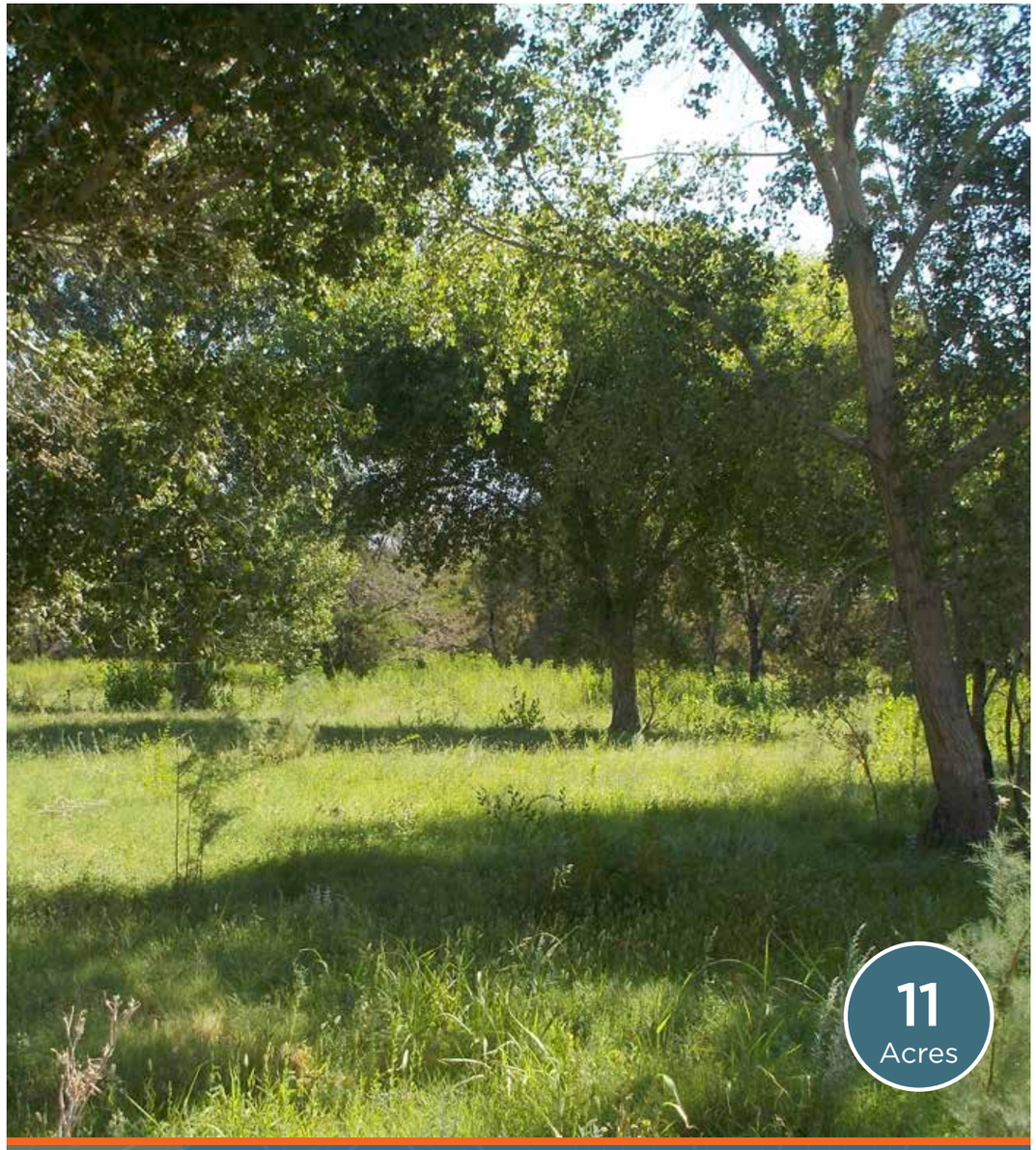
This project was implemented as an LADWP Environmental Project in the 1970s. Water is supplied from Division Creek to maintain the marsh vegetation as required. Livestock grazing is excluded from the project area.

Water Commitment:

None, however, LADWP did commit to supply an unspecified amount of water from Division Creek to this area to maintain the marsh vegetation. Between 1970 and 1984, LADWP committed approximately 10,000 AFY to implement and maintain a series of environmental projects. This volume includes the supply for this project.

Current Status:

Water is supplied annually to this project. ***Project is implemented and ongoing.***



43 Lone Pine East Side Regreening

Legal Reference: 1991 EIR Impact 10-16	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-16: Approximately 1,080 acres of formerly irrigated lands had not successfully revegetated following the abandonment of agriculture. This was a significant adverse impact because these lands had a loss of vegetation and were the source of blowing dust.	A field of approximately seven acres along the Whitney Portal Road in Lone Pine, and a field of approximately 11 acres north of Lone Pine and east of Highway 395, have been converted to irrigated pasture as part of the Lone Pine Regreening enhancement/mitigation projects.

**Also noted in EIR Table 5-3.*

Project Goal:

The goal of this project is to enhance the aesthetics of abandoned agricultural or pasturelands in the Lone Pine Area. Water is supplied to this project from Lone Pine Creek via Overhead 8, or the Los Angeles Aqueduct. The water is conveyed via ditches and culverts under the highway for flood irrigation of approximately 11 acres of pasture.

Progress to Date:

The Inyo/Los Angeles Technical Group presented the Final Scoping Documents for the Town Regreening Projects to the Standing Committee for evaluation and approval on September 28, 1988. These projects were considered categorically exempt so no further CEQA evaluation was pursued prior to implementation. This project was implemented as an LADWP Enhancement/ Mitigation Project in 1990.

Project construction included ditch and culvert repair, construction of new ditches and check structures for effective irrigation, and installation of fencing. LADWP supplies the allotted water to the project annually as required, and LADWP's lessee operates and maintains the project.

Per the Final Scoping Document for Lone Pine Regreening - East Side (1988), replacement water is to be supplied from E/M Well 375 in the Big Pine Area. However, LADWP does not collect this makeup water.

Water Commitment:

This project has a firm water commitment of 55 AF annually per the project's final scoping document. However, LADWP operates the project with a 33 acre-feet allotment (sprinkler irrigation) instead of the scoped 55 acre-feet.

The Inyo/Los Angeles Water Agreement provides that all enhancement/mitigation projects implemented between 1984 and 1990 will continue and will be supplied with an average of 30,000 AFY from enhancement/mitigation wells as necessary. LADWP has been supplying the necessary water but has not recouped the allowable makeup water from all projects. Replacement water for this project was to be supplied from E/M Well 375 in the Big Pine Area.

Current Status:

Water is supplied annually to this project. ***Project is implemented and ongoing.***

44 Lone Pine-North Lone Pine Clean Up

Legal Reference: 1991 EIR Impact Table 4-3	
1991 EIR Impact:	**Mitigation Measure/Provision:**
N/A	This project consisted of clearing unsightly, diseased or dead trees and cleaning up refuse around the community of Lone Pine.

Project Goal:

The goal of this project is to improve the appearance of a 23 acre area east of 395, between Lone Pine Station Road and Lone Pine Cemetery. This project consisted of clearing unsightly diseased trees, removing downed trees, stumps and branches, and cleanup of refuse, fence posts, and wire.

Progress to Date:

The final scoping document for this project was adopted by the Inyo/Los Angeles Standing Committee in 1988. This project was implemented as an LADWP Enhancement/Mitigation Project in 1989 as described.

Water Commitment:

None.

Current Status:

Project is complete.

45

Lone Pine Riparian Park (and water supply for 355 acres)

4 Acres

Legal Reference: 1991 EIR Table 4-3 and 5-3	
1991 EIR Impact:	**Mitigation Measure/Provision:**
N/A	Provide a continuous water supply to a re-established ditch running through Lone Pine Town Park and then easterly to the Lone Pine Woodlot Project. Water not used by this project or the Woodlot Field project could flow to the historic Lone Pine Creek Channel east of Lone Pine and returned to the Owens River Channel.

Project Goal:

The goal of this project is to supply water through a historic ditch to the Lone Pine Riparian Park (4 acres), the Lone Pine Wood Lot (12 acres), and 320 acres of reestablished pasturelands in Richards and Van Norman Fields. Water is supplied to this project via Lone Pine Creek, well W425, and from the Los Angeles Aqueduct via Overhead 8.

Replacement water is to be provided from a new well near the Owens River at Stewart Lane south of Big Pine (E/M Well 375) and all water is to be metered and credited to this enhancement/mitigation project. Pumped water was to be discharged into the Owens River.

Progress to Date:

LADWP prepared an Initial Study and filed a Negative Declaration for this project on September 12, 1986. The Notice of Determination was filed October 24, 1986. This project was implemented as an LADWP Enhancement/Mitigation Project in 1987. The Lone Pine Riparian Park (proper) is leased and maintained by the County of Inyo.

Water Commitment:

The initial study for this project included the Richards and Van Norman field projects as well as the Lone Pine Woodlot and the Lone Pine Riparian Park. After two E/M Evaluations were developed in 1988, the total commitment to water for the combined projects was 1,180 acre-feet. However, the Riparian Park portion of the combined projects was unspecified and not included in the total. There is no firm water commitment for this project, however LADWP estimates a consumptive use of 5 AFY for the Lone Pine Park project.

There is a 640 acre-feet firm water commitment annually as well as a commitment to supply the park and the woodlot with water. Two E/M Evaluations were put out in 1988 which increased the commitment to 960 acre-feet of annual water, not including the unspecified water amount for the park and woodlot. In practice, LADWP has established a total allotment for this project of 992 acre-feet per year.

The Inyo/Los Angeles Water Agreement provides that all enhancement/mitigation projects implemented between 1984 and 1990 will continue and will be supplied with an average of 30,000 AFY from enhancement/mitigation wells as necessary. LADWP has been supplying the necessary water but has not recouped the allowable makeup water from all projects. LADWP does not currently receive replacement water for this project.

Current Status:

Water is supplied annually to this project. ***Project is implemented and ongoing.***

46 Lone Pine Sports Complex

Legal Reference: 1991 EIR Impact 10-13	
1991 EIR Impact:	**Mitigation Measure/Provision:**
N/A	This project consists of a sports complex that includes a playground for Lo-Inyo School, soccer fields, softball/ baseball fields, and parking and picnic area over approximately 10 acres.

Project Goal:

The goal of this project is to convert vacant City property in Lone Pine to an outdoor sports complex consisting of baseball fields, soccer fields, parking, picnic, and park areas.

Progress to Date:

In 1986, Lone Pine community leaders proposed a sports complex for the town to be funded through grant money. When the funding was no longer available, the Inyo/Los Angeles Standing Committee modified the area originally set forth for the Lone Pine Wood Lot Project to allow for the construction of a sports complex on adjacent City of Los Angeles property in Lone Pine.

This project was implemented as an LADWP Enhancement/Mitigation Project in 1990. LADWP funded and/or conducted all improvements required for implementation of the project which included grading/ ground preparation, hydro seeding, and installation of fencing and irrigation and sewer systems. LADWP also funded the architect that developed the design for the facility. The school obtained water service and is billed by LADWP for actual water use on the site. Water is provided through the town water system. The 12 acre sports complex is currently leased and maintained by the Lone Pine Unified School District.

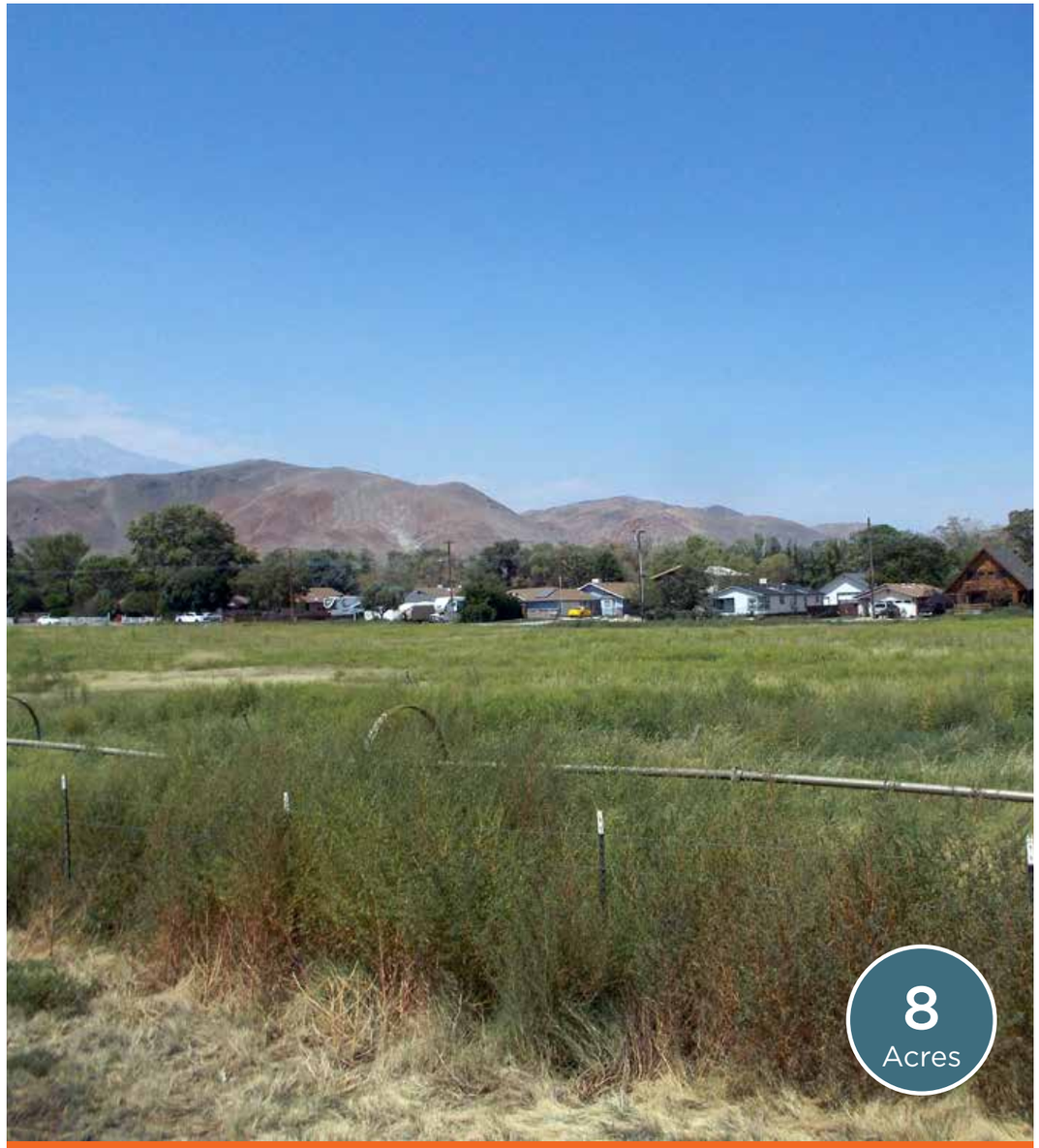
Project Photos:

Water Commitment:

There is no specific water commitment for this project, however water is supplied to this project through the town water system (through LADWP per the Inyo/ LA Water Agreement). The Lone Pine Unified School District is billed by the town water system for actual water use on the site.

Current Status:

Project is complete.



47 Lone Pine West Side Regreening

Legal Reference: 1991 EIR Impact 10-16	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-16: Approximately 1,080 acres of formerly irrigated lands had not successfully revegetated following the abandonment of agriculture. This was a significant adverse impact because these lands had a loss of vegetation and were the source of blowing dust.	A field of approximately seven acres along the Whitney Portal Road in Lone Pine, and a field of approximately 11 acres north of Lone Pine and east of Highway 395, have been converted to irrigated pasture as part of the Lone Pine Regreening enhancement/mitigation projects.

**Also noted in EIR Tables 4-3 and 5-3.*

Project Goal:

The goal of this project is to enhance the aesthetics of abandoned agricultural or pasturelands in the Lone Pine Area. Water is supplied to this project from Lone Pine Creek via Los Angeles Aqueduct Overhead 14. The water is conveyed through a pipeline to the west edge of the parcel for sprinkler irrigation of 8 acres of pasture.

Progress to Date:

The Inyo/Los Angeles Technical Group presented the Final Scoping Documents for the town regreening projects to the Standing Committee for evaluation and approval on September 28, 1988. These projects were considered categorically exempt so no further CEQA evaluation was pursued prior to implementation.

This project was implemented as an LADWP Enhancement/Mitigation Project in 1990. Project construction included installation of the supply pipeline and perimeter fencing. Operation and maintenance of the project was to be the LADWP lessee's responsibility. LADWP supplies the allotted water to the project annually as required, but the project area is currently unleased. LADWP Aqueduct and Reservoir Keepers are currently irrigating the parcel to maintain vegetation.

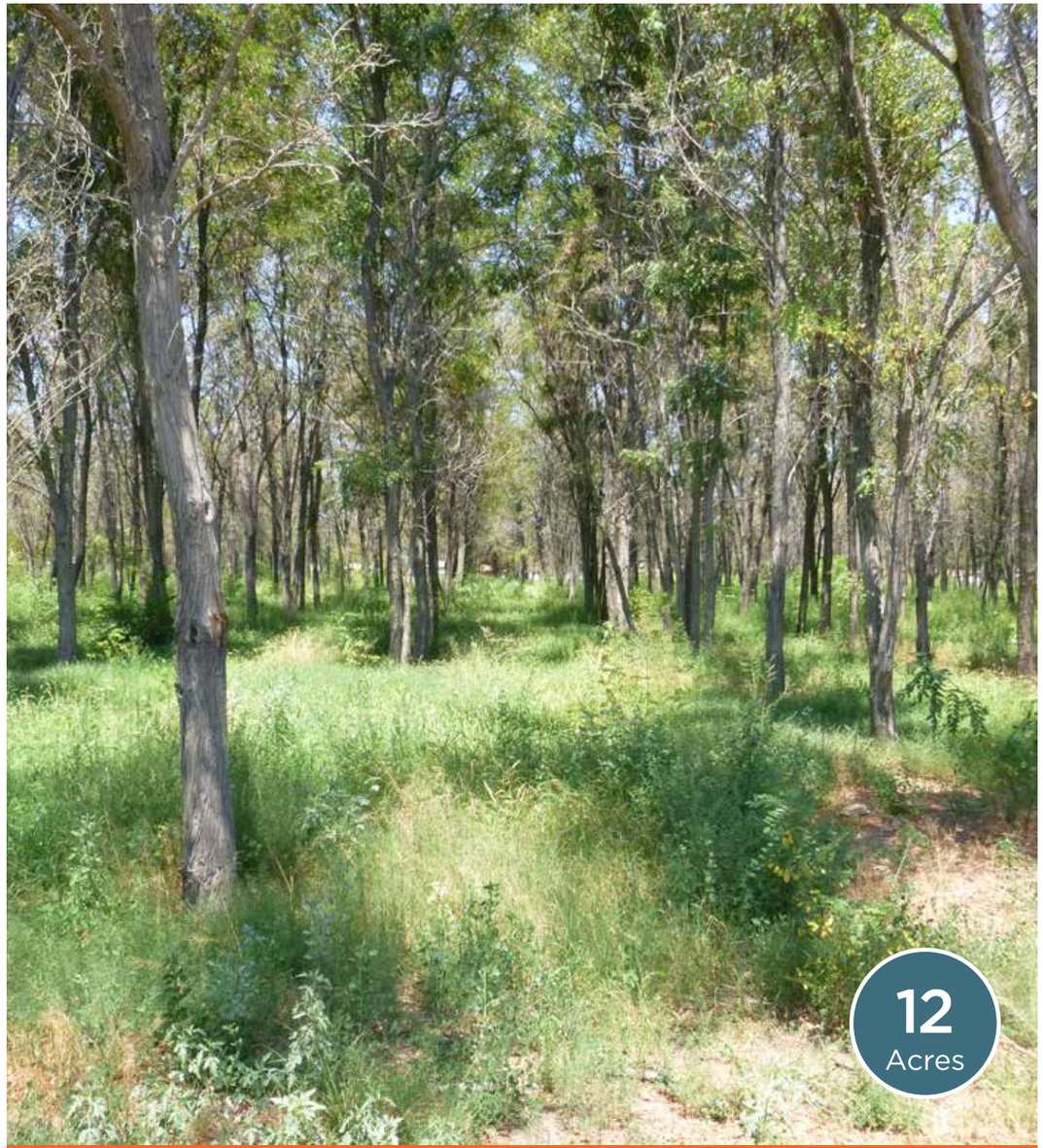
Per the Final Scoping Document for Lone Pine Regreening- West Side (1988), replacement water is to be supplied from E/M Well 375 in the Big Pine Area. However, LADWP does not collect this makeup water.

Water Commitment:

This project has a firm water commitment of 40 AF annually per the project's final scoping document. The Inyo/Los Angeles Water Agreement provides that all enhancement/mitigation projects implemented between 1984 and 1990 will continue and will be supplied with an average of 30,000 AFY from enhancement/mitigation wells as necessary. LADWP has been supplying the necessary water but has not recouped the allowable makeup water from all projects due to various reasons. Replacement water was to be supplied from E/M Well 375 in the Big Pine Area for this project, however LADWP does not collect this makeup water.

Current Status:

Water is supplied annually to this project. ***Project is implemented and ongoing.***



48

Lone Pine Woodlot

Legal Reference: 1991 EIR Impact 10-11	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-11: Approximately 1,080 acres of formerly irrigated lands had not successfully revegetated following the abandonment of agriculture. This was a significant adverse impact because these lands had a loss of vegetation and were the source of blowing dust.	As part of the enhancement/mitigation projects implemented by LADWP and Inyo County since 1985, approximately 942 acres of these abandoned agricultural lands have been revegetated with irrigated pasture or alfalfa. These areas are the Independence Pasture and native pasture lands, the Van Norman and Richards Fields, and the Lone Pine Woodlot adjacent to Lone Pine.

**Also noted in EIR Table 4-3.*

Project Goal:

The goal of this project is to establish a wood lot on formerly abandoned agricultural land in Lone Pine to provide fuelwood to the local community and mitigate blowing dust.

Progress to Date:

The project was initially evaluated by the Inyo/Los Angeles Technical Group 1985 to cover 35 acres. In 1986, the Inyo/Los Angeles Technical Group revised the project to cover only the northernmost 12 acres originally proposed and leave room for the development of a sports complex directly to the south (Lone Pine Sports Complex, implemented in 1990). Water is supplied to the wood lot via the Lone Pine Riparian Park.

The Lone Pine Wood Lot was initially planted in 1987. The wood lot was planted at a high density with the intent of thinning to a 12- foot spacing after planting success was determined. Over time, this high density of trees resulted in reduced growth and increased competition. While the hybrid poplar portions of the wood lots have been harvested several times since project implementation, the locust portions of the wood lots had never been harvested until 2015-2016. At that time, LADWP and CAL Fire conducted a significant thinning effort in both the Lone Pine and Independence Wood Lots resulting in approximately 130 cords of wood harvested and distributed to the Lone Pine Future Farmers of America (FFA), who holds the lease to both wood lots and manages the distribution of wood.

Inyo Mono Advocates for Community Action (IMACA) assumed responsibility for management, maintenance, harvesting, and distribution of the fuelwood for the woodlot in 1998. The Lone Pine Future Farmers of America (FFA) took over the lease in 2010 and currently handles distribution of the fuel wood to the community. LADWP currently maintains the wood lot, including thinning of trees, reestablishment of irrigation furrows, and any replanting that occurs.

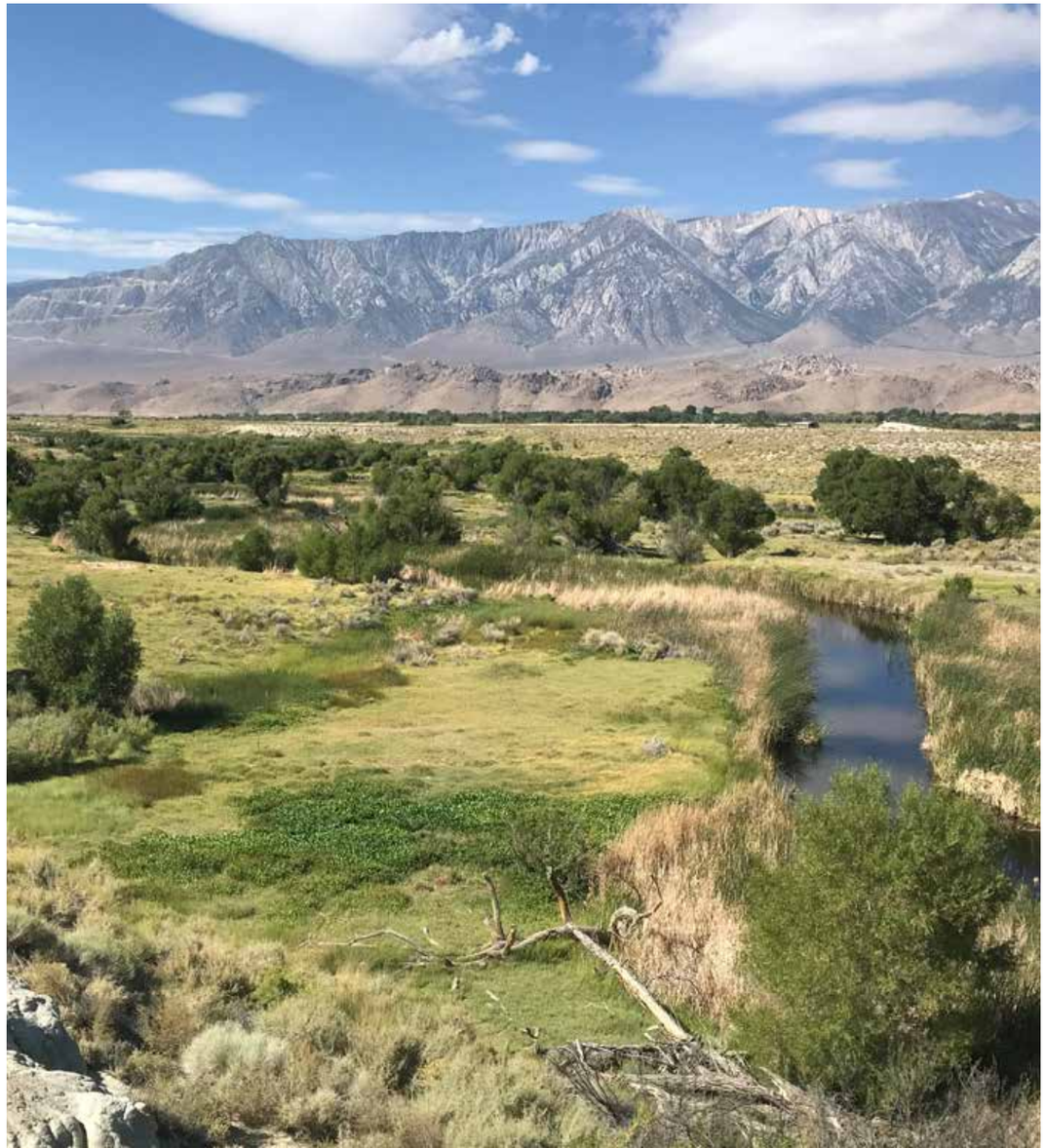
In Winter 2016-17, LADWP and CALFire continued thinning the Hybrid Popular and Black Locust tree portions of both Wood Lots, resulting in another 120 cords of wood harvested and distributed to the Lone Pine FFA. Maintenance of the wood lots continues as needed. LADWP will continue with additional hybrid poplar pole plantings in the western portion as resources allow.

Water Commitment:

Due to the revision of the project to 12 acres, LADWP provides a 60 acre-feet per year allotment. The water is supplied via a pipeline with risers installed to flood furrows in the woodlot area.

Current Status:

Water is supplied annually to the project for irrigation. ***Project is implemented and ongoing.***



49 LORP Project/Lower Owens Rewatering Project

Legal Reference: 1991 EIR Impact 10-14, 10-17, 10-20, MOU Section II	
1991 EIR Impact:	**Mitigation Measure/Provision:**
Increased groundwater pumping has reduced or eliminated flows from Fish Springs, Big and Little Seely Springs, Hines Spring, Big and Little Blackrock Springs, and Reinhackle Spring. This has caused significant adverse impacts to vegetation at several of these spring areas.	Although not all springs and associated riparian and meadow vegetation will receive on-site mitigation, the Lower Owens River Project will provide mitigation of a compensatory nature. This project will rewater over 50 miles of the river channel allowing for restoration of riparian vegetation along the river. This project also will result in the creation of several new ponds along the river and will provide the continuation of existing lakes associated with the project. The project will restore large areas of wetland and meadow vegetation, perhaps exceeding 1,000 acres adjacent to the river and in its delta. In comparison, the area of riparian and meadow vegetation that has been lost and will not be restored because of the elimination of spring flow due to groundwater pumping is estimated to be less than 100 acres.

**Also noted in EIR Tables 4-3 and 5-3.*

Progress to Date:

This project was originally identified as an enhancement/mitigation project in the 1991 EIR that would provide up to 18,000 AFY of continuous flow to 50 miles of previously dry river channel, off river lakes and ponds, and waterfowl habitat in the region. The LORP was also a topic of the 1997 MOU and subsequent LORP EIR (2004). This large scale river restoration project was implemented in 2006. Flows were initiated in the Lower Owens River Project in December 2006. All four elements of the LORP are functioning and are being adaptively managed. For more information on the monitoring and management of the LORP, refer to LADWP and ICWD's LORP Annual Report.

Water Commitment:

There is no firm water commitment to rewater the LORP, but there are required flows per the 2007 Stipulation and Order (Case No. S1CVCV01-29768) that results in approximately 22,000 acre-feet of consumptive use annually.

Current Status:

Monitoring is ongoing and water is annually supplied to the project as required. For more information on the monitoring and management of the LORP, refer to LADWP and ICWD's LORP Annual Report. ***Project is implemented and ongoing.***

50

McNally Ponds and Native Pasturelands

Legal Reference: 1991 EIR Impact 10-5 and 10-18	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-5: Between 1970 and 1990, the project resulted in beneficial changes to lakes and ponds, and the creation of new lakes and ponds, with no significant adverse impact on vegetation. 10-18: Significant adverse vegetation decrease and change have occurred in the Laws area due to a combination of factors, including abandoned agriculture, groundwater pumping, water spreading in wet years, livestock grazing, and drought.	In the mid-1980s, LADWP and Inyo County implemented the Laws-Poleta Pasture Land, Laws Museum, and McNally Ponds enhancement/mitigation projects in the Laws area totaling approximately 541 acres of pasture land.

**Also noted in EIR Tables 4-3 and 5-3.*

Project Goal:

This project was implemented as an LADWP Enhancement/Mitigation Project in 1986-1987. When in operation, this project provides water for 300 acres of pasture during the spring and summer months to mitigate and sustain vegetation, and provides water to 60 acres of ponds during the fall months for waterfowl habitat.

Progress to Date:

The Standing Committee agreed in 1991 to reduce the water commitment to the McNally Ponds Project because of dry conditions. In most normal and below-normal runoff years since that time, the Standing Committee has reduced water releases to this project. In years of abundant runoff the project receives its full allotment of water. In drier years the McNally Canals are not operated. There is an alternate water supply source when wells are in ON status. In dry years when the wells are in off status, this project is not supplied.

Water Commitment:

The Inyo/Los Angeles Water Agreement provides that all enhancement/mitigation projects implemented between 1984 and 1990 will continue and will be supplied with an average of 30,000 AFY from enhancement/mitigation wells as necessary. This figure includes the allotment for this project.

The E/M evaluation report commits 4,000 AFY to supply water to 300 acres of pastureland (900 AFY), fall waterfowl ponds (1,500 AFY), with 1,600 AFY of the 4,000 AFY lost to conveyance losses. The 300 acres of pastureland is divided up with 100 acres being located near the McNally pond area along the Upper McNally and 200 acres located along the Lower McNally. The water supply for this project was designated as the McNally Canals when they are in operation, and W249 when they are not in operation, with makeup water to come from W385 and W386.

Current Status:

Water is supplied to the project in years where the McNally Canals are in operation or the associated wells are in ON status. ***Project is implemented and ongoing.***

51 Millpond Recreation Area

Legal Reference: 1991 EIR Impact 10-5	
1991 EIR Impact:	**Mitigation Measure/Provision:**
Between 1970 and 1990, the project resulted in beneficial changes to lakes and ponds, and the creation of new lakes and ponds, with no significant adverse impact on vegetation.	This project was first implemented as an LADWP Environmental Project and required water to be provided to the pond as the recreation area either by creek flow or a well at the site. Millpond is also an Enhancement Mitigation Project that has required LADWP to provide funds to purchase energy to operate the recreation area's sprinkler system that waters 18 acres of the community park including two softball fields.

**Also listed on Tables 5-2 and 5-3.*

Project Goal:

The goal of this project as an LADWP Environmental Project in the 1970's is to provide water to a pond at a recreation area west of Bishop either by creek flow or a well at the site. As an LADWP Enhancement/Mitigation Project, LADWP also provides funds to purchase energy for an uninterrupted water supply to the sprinkler system for continued irrigation of existing turf.

Progress to Date:

This project was first implemented as an LADWP Environmental Project in the 1970's. It was further evaluated as an Enhancement Mitigation project in 1985 and was the first E/M project implemented by LADWP.

Since 1985, funds have been provided to purchase energy as described above. The Millpond Recreation Area is leased and maintained by the Inyo County Parks and Recreation. LADWP continues to provide water and funds for power annually to this project.

Project Photos:

Millpond Park and Playground (August 2017).

Millpond Softball/Baseball fields (August 2017).

Water Commitment:

There is no firm water commitment to this project. However, LADWP provides water to maintain the level of the pond and average annual consumptive uses for this project are 900 AFY.

Between 1970 and 1984, LADWP committed approximately 10,000 AFY to implement and maintain a series of environmental projects. This volume includes the supply for this project.

Current Status:

LADWP continues to provide water and funds for power annually to this project. ***Project is implemented and ongoing.***

52 North of Mazourka Canyon Road Project

Legal Reference: Additional Mitigation Projects Developed by the MOU Ad Hoc Group (MOU Section III.A.3), Second Amendment of Amended Stipulation and Order S1CVCV01-29768.

Project Goal:

The goals for the North of Mazourka Canyon Road project are to create a functional spring habitat at an artesian well source; create a spring outflow channel and riparian habitat based on available water flow; create channel outflow into ponded habitat at F045A, construct a stock watering location via a solar pump at a monitoring well immediately north of Well V008, and maintain and monitor outflow channel habitat for proper functioning condition and sustainability. This project has a water allotment of 300 AF from two artesian well sources.

Progress to Date:

All construction required to implement and operate the project as proposed was complete by December 2011. During implementation, LADWP drilled a new artesian well, developed existing artesian Well V008, installed two pipelines and a stockwater trough, and removed saltcedar and Russian Olive from the project area.

The following table depicts water supplied to the North of Mazourka Canyon Road Project since project implementation. The project's artesian wells have supplied approximately one-third to one-half of the allotted water supply since the project commenced.

Year	North of Mazourka Project Total Acre Feet (AF) Supplied
Project Target	**300**
2012-2013	232
2013-2014	183
2014-2015	147
2015-2016	110
2016-2017	110
2017-2018	109
2018-2019	110
2019-2020	110
2020-2021	112
Average	**136**

Vegetation is diverse, healthy and thriving at the created spring habitat around the artesian pipe outfall and along the banks of the outflow channel leading towards the pond F045A. However, this channel dissipates into wetland and meadow vegetation and then disappears before it reaches the pond. The pond was inundated initially with implementation but has been dry during the last few years.

Some saltcedar resprouts occur in the project area. Saltcedar eradication efforts should continue at this site as resources are available. Flow monitoring will continue monthly and will be reported in LADWP's Annual Owens Valley Report. The project will continue functioning as described with the water allotment for the project remaining at 300 AF annually.

Five Year Evaluation:

LADWP completed the required 5-year evaluation of the Additional Mitigation Projects in 2017. The evaluation was provided to the MOU Parties and the public as part of LADWP's 2017 Annual Owens Valley Report. In this evaluation, LADWP recommended discontinuing much of the annual photo point and other vegetation monitoring and mapping 5 years post implementation. Monthly flow monitoring will continue as well as periodic monitoring and treatment of invasive species. This information will continue to be provided in LADWP's annual report.

Project Photos:

New stockwater trough installed near V008 (February 2012).

Pipe Outfall (convergence of both pipelines) Within Exclosure During Implementation, December 2011

Pipe Outfall (convergence of both pipelines) Within Exclosure, Post Implementation, August 2012

Water Commitment:

300 AFY per the Additional Mitigation Projects Developed by the MOU Ad Hoc Group document and Second Amendment of Amended Stipulation and Order S1CVCV01-29768.

Current Status:

Water continues to be provided annually to this project. Flow monitoring will continue monthly and will be reported in LADWP's Annual Owens Valley Report. The project will continue functioning as described in the Additional Mitigation Projects document with the water allotment for the project remaining at 300 AF annually. ***Project is implemented and ongoing.***

53 Reinhackle Spring

Legal Reference: 1991 EIR Impacts 10-14 and 10-15	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-14: Increased groundwater pumping has reduced or eliminated flows from Fish Springs, Big and Little Seely Springs, Hines Spring, Big and Little Blackrock Springs, and Reinhackle Spring. This has caused significant adverse impacts to vegetation at several of these spring areas. 10-15: Under the provisions of the Agreement and the Green Book, spring flows and vegetation dependent upon such flows will be carefully monitored by the Technical Group. Groundwater pumping from existing and new wells will be managed to avoid reductions in spring flows that would cause significant decreases or changes in spring associated vegetation.	When it was determined in the late 1980s that groundwater pumping was affecting the flow from Reinhackle Spring, pumping from certain wells in the area was discontinued and the spring flow increased. No significant adverse impacts on vegetation in this area have resulted from the reduced flow. At Reinhackle Spring, groundwater pumping from wells that affect the spring flow will be managed so that flows from the spring will not be significantly reduced compared to flows under prevailing natural conditions. In addition, all of the provisions for protecting springs, described in impact 10-15 and contained in the Water Agreement and the Green Book, will be applied equally to Reinhackle Spring.

Project Goal:

The goal of this project is to maintain spring flows and vegetation at Reinhackle Spring. Groundwater pumping will be managed in accordance with the Green Book such that no significant impacts to spring flows or vegetation will occur. If impacts do occur, LADWP shall supply surface water to, or actively revegetate the impacted area.

Progress to Date:

Prior to impacts from groundwater pumping, the spring provided sourcewater to a large pasture and supported many large tree willows onsite. When it was determined in the late 1980s that groundwater pumping was affecting the flow from Reinhackle Spring, pumping from certain wells in the area was discontinued and the spring flow increased.

A geochemistry study of flow in Reinhackle Spring was conducted in 2003 as a cooperative study by LADWP, MWH Americas, Inc., and ICWD, which concluded that water from Reinhackle Spring is similar in origin to the Los Angeles Aqueduct and dissimilar to the deep aquifer samples and up gradient shallow aquifer wells.

In March 2011, an operational test was conducted in Bairs Georges Wellfield to study the response of the spring flow to groundwater pumping by active wells in the wellfield and the flow in the Los Angeles Aqueduct. Results showed that the flow in Reinhackle Spring is affected mainly by the water levels in the shallow aquifer west of the spring. Groundwater pumping in the Bairs Georges Wellfield could affect the flow in the spring only to the extent that it affects water levels in the shallow aquifer west of the spring.

Following this test, LADWP developed a monitoring and operational plan for Bairs Georges Wellfield and submitted it to ICWD for comment in 2012. This monitoring and operational plan has not been finalized.

LADWP has monitored spring flows at Reinhackle Spring continuously since 1990 and has monthly flow measurements at Reinhackle Spring from 1965-1989. These flows will continue to be monitored. No detrimental impacts to vegetation in the area are apparent at this time.

Water Commitment:

None.

Current Status:

Monitoring of spring flows will continue. ***Project is implemented and ongoing.***

54 Richards Fields

Legal Reference: 1991 EIR Impact 10-16	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-16: Approximately 1,080 acres of formerly irrigated lands had not successfully revegetated following the abandonment of agriculture. This was a significant adverse impact because these lands had a loss of vegetation and were the source of blowing dust.	As part of the enhancement/mitigation projects implemented by LADWP and Inyo County since 1985, approximately 942 acres of these abandoned agricultural lands have been revegetated with irrigated pasture or alfalfa. These areas are the Independence Pasture and native pasture lands, the Van Norman and Richards Fields, and the Lone Pine Woodlot adjacent to Lone Pine.

**Also noted in EIR Table 4-3.*

Project Goal:

The goal of this project is to reestablish abandoned pastureland that was removed from irrigation in 1964, and provide water to native vegetation lands east and north of Lone Pine. This parcel will be flood irrigated from an existing ditch and is a supplement to the Lone Pine Riparian Park Project. Surface water used from Lone Pine Creek will be replaced from a new well that will be drilled near Stewart Lane in the Big Pine area concurrently with the project.

Progress to Date:

This project was originally evaluated in 1986 and implemented as a LADWP Enhancement/Mitigation Project in 1987.

Water Commitment:

The Inyo/Los Angeles Water Agreement provides that all enhancement/mitigation projects implemented between 1984 and 1990 will continue and will be supplied with an average of 30,000 AFY from enhancement/mitigation wells as necessary. A water allotment of 480 AFY is being provided to 160 acres of native vegetation per the 1998 E/M Evaluation. LADWP has been supplying the necessary water but is not currently recovering the allowable makeup water from W375.

Current Status:

Water continues to be provided annually to the project for irrigation. ***Project is implemented and ongoing.***

55 Saunders Pond

Legal Reference: 1991 EIR Impact 10-16	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-5: Between 1970 and 1990, the project resulted in beneficial changes to lakes and ponds, and the creation of new lakes and ponds, with no significant adverse impact on vegetation.	Under this project, water is provided for a warm-water fishery and waterfowl area.

**Also noted in EIR Table 4-3.*

Project Goal:

The goal of this project is to provide a warmwater fishery and waterfowl area five miles southeast of Bishop. Surface water is supplied to Saunders pond from the Rawson Canal downstream of Buckley, Rawson, and Duck Ponds.

Progress to Date:

The dike system forming the Buckley Pond Series (including Saunders Pond) was originally constructed in the 1950s to create a water spreading and groundwater recharge area to be used only in above normal years. In 1968, a cooperative agreement between LADWP and CDFG proposed a habitat improvement project and permanent wildlife habitat area. Work on Saunders Pond was complete in 1971. LADWP, California Department of Fish and Game, and California Department of Forestry signed onto the joint Habitat Management Plan for the Buckley Pond Series in 1976 that described how the pond series was to be managed.

Water is diverted from the Bishop Creek Canal via Diversion #12 into the Rawson Canal to fill Buckley and Rawson Ponds #1, #2, and #3. Water is then (a) returned to the river via Rawson Pond Return to the river (from Pond #3), or (b) continues in the Rawson Canal to fill Duck and Saunders Ponds downstream. Water is then returned through Saunders Return to the river.

LADWP burned Saunders Pond in Spring 2016, removed aquatic vegetation, and resumed flows to the pond in Fall 2016. The local Lion's Club installed a handicap accessible fishing platform/dock on the south end of the pond in Summer 2016.

Project Photo:

Saunders Pond following rewatering (October 2016).

Water Commitment:

There is no firm water commitment for this project. However LADWP provides water from the Rawson Canal below Duck Pond to maintain the level of the pond and the excess water returns to the Owens River. The combined average consumptive use for the Buckley/Saunders Ponds is 2,500 AFY.

Between 1970 and 1984, LADWP committed approximately 10,000 AFY to implement and maintain a series of environmental projects. This figure includes the supply for this project.

Current Status:

Water continues to be provided annually to the project. ***Project is implemented and ongoing.***

56 Shepherd Creek Alfalfa Field

Legal Reference: 1991 EIR Impacts 10-11 and 12-1	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-11: Fluctuations in water tables due to groundwater pumping have caused approximately 655 acres of groundwater dependent vegetation to die off. Loss of vegetation cover has occurred on these lands. 12-1: Significant impacts on air quality resulting from groundwater pumping during the period of 1970 to 1990 have occurred due to vegetation losses.	10-11: Under the Shepherd Creek enhancement/ mitigation project, approximately 198 acres of poorly vegetated land has been converted to alfalfa. This area was affected by groundwater pumping and abandonment of irrigation. In addition, an area of approximately 60 acres to the east of the existing project area on the opposite side of U.S. Highway 395 is poorly vegetated. If the density of the native cover in this area does not naturally increase, the existing enhancement/mitigation project may be expanded to include this additional area. 12-1: Under the Shepherd Creek enhancement/ mitigation project, approximately 200 acres of poorly vegetated land has been converted to alfalfa.

**Also noted in EIR Tables 4-3 and 5-3.*

Project Goal:

The purpose of this project is to convert 200 acres of land adjacent to Highway 395 to alfalfa to minimize and mitigate blowing dust. Water is supplied from W402 on the north side of the project and from Shepherd Creek in wet years.

Progress to Date:

LADWP prepared an Initial Study and Negative Declaration for this project in 1985. This project was implemented as an LADWP Enhancement/Mitigation Project in 1986 as described. The Shepherd Creek Alfalfa Field Project has been revegetated with alfalfa that is sprinkler irrigated and wind break trees.

Water Commitment:

990 AFY. The Initial Study states approximately 183 acres of alfalfa with an estimated use 825 AFY. When constructed, the area was actually 198 acres, so an allotment of 5AF/acre was applied (consistent with the Initial Study) resulting in an allotment of 990 AFY.

The Inyo/Los Angeles Water Agreement provides that all enhancement/mitigation projects implemented between 1984 and 1990 will continue and will be supplied with an average of 30,000 AFY from enhancement/mitigation wells as necessary. Water is supplied to this project by W402.

Current Status:

Water continues to be provided annually to the project for irrigation. ***Project is implemented and ongoing.***

57 Shepherd Creek Potential

Legal Reference: 1991 EIR Impacts 10-11 and 12-1	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-11: Fluctuations in water tables due to groundwater pumping have caused approximately 655 acres of groundwater dependent vegetation to die off. Loss of vegetation cover has occurred on these lands. 12-1: Significant impacts on air quality resulting from groundwater pumping during the period of 1970 to 1990 have occurred due to vegetation losses.	10-11: Under the Shepherd Creek enhancement/ mitigation project, approximately 198 acres of poorly vegetated land has been converted to alfalfa. This area was affected by groundwater pumping and abandonment of irrigation. In addition, an area of approximately 60 acres to the east of the existing project area on the opposite side of U.S. Highway 395 is poorly vegetated. If the density of the native cover in this area does not naturally increase, the existing enhancement/mitigation project may be expanded to include this additional area.

**Also noted in EIR Table 5-3.*

Project Goal:

Should native vegetation recruitment not occur, the goal of this project is to revegetate a 60 acre area east of Highway 395 to minimize and mitigate blowing dust.

Progress to Date:

The Shepherd Creek Potential Project was evaluated and natural increases in the density of native cover have occurred making the site comparable to baseline conditions in adjacent undisturbed parcels. Therefore, the goals for this potential project, as stated in the EIR, have been met.

Water Commitment:

None.

Current Status:

Project is complete.

58 Steward Ranch

Legal Reference: 1991 EIR Impact 9-14 and 16-7	
1991 EIR Impact:	**Mitigation Measure/Provision:**
9-14: Los Angeles Department of Water and Power (LADWP) pumping between 1970 and 1990 in the Big Pine area contributed to lowered water levels in the wells of Steward Ranch and resulted in an adverse economic effect. It is expected that LADWP will continue to pump from this area in the future. The proposed mitigation measure would reduce this impact to less than significant. 16-7: New wells in the Big Pine area would lower groundwater levels, and could result in significant impacts to local private wells.	Because groundwater pumping in the Big Pine well field was contributing to a lowering of groundwater levels at Steward Ranch, one of two wells became inoperable. LADWP reached agreement with the ranch owners to permanently mitigate the lowered groundwater levels that have existed since 1972.

Project Goal:

The goal of this project is to offset the impacts to private wells from LADWP's groundwater pumping that occurred in the Big Pine Wellfield. As part of this project, a new well will be drilled and equipped for the private landowner at no cost to him/her, power bills will be adjusted in the future to compensate for added power costs of pumping water from a greater depth than prior to 1972.

Progress to Date:

The mitigation efforts are complete. LADWP continues to compensate the ranch owners for added power costs of pumping water from a greater depth.

Water Commitment:

None.

Current Status:

LADWP continues to compensate the ranch owners for added power costs of pumping water from a greater depth. ***Project is implemented and ongoing.***

59 Tinemaha 054 Revegetation Project

Legal Reference: 1991 EIR Impact 10-11	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-11: Fluctuations in water tables due to groundwater pumping have caused approximately 655 acres of groundwater dependent vegetation to die off. Loss of vegetation cover has occurred on these lands.	Approximately 80 acres of land that lost a significant amount of its native vegetation cover as a result of increased groundwater pumping will be revegetated. The techniques that will be employed to revegetate these lands will be determined through studies that will be conducted by LADWP and Inyo County. These lands will not be permanently irrigated, but will be revegetated with native Owens Valley vegetation not requiring irrigation except perhaps during its initial establishment. Depending on the amount of rainfall and runoff, successful revegetation of these lands could take a decade or longer. The goal will be to restore as full a native vegetation cover as is feasible, but at a minimum, vegetation cover sufficient to avoid blowing dust will be achieved in that area.

Project Goal:

The goal of this project is to restore the vegetation type that previously existed, to establish perennial vegetation comparable to nearby areas, or to revegetate with other native Owens Valley species. The site-specific goal for this area is 30% live perennial cover and 3 native species per guidance in the 1999 Revegetation Plan.

Progress to Date:

Project implementation is complete. The 0.4 acre area was fenced and planted with 108 grass plants and drip irrigated between 1999 and 2004 to encourage plant establishment. In 2016-2017, LADWP planted approximately 125 native plants consisting of *Atriplex Torreyi, Atriplex canescens, Atriplex polycarpa, and Krascheninnikovia lanata* using the Land Life Cocoon planting method. This technology allows for shrubs to grow in arid environments with a temporary reservoir and does not require additional irrigation post planting. The road through the middle of the site was removed and reclaimed as well during this planting process.

Survivorship of the 2016 plantings was 80%. Transects were run by LADWP in August of 2017. The parcel has achieved 5% total perennial cover with 4 native perennial species. The project has attained the composition goals. Plantings will be monitored every five years until cover goals are achieved.

Project Photos:

Alkali sacaton planted at Tinemaha 054 Revegetation Project (May 30, 2002).

Watershed Resources Staff planting shrubs at TIN054 using Land Life Cocoon planting system (Fall 2016).

TIN054 Revegetation Site (July 25, 2017).

Water Commitment:

None.

Current Status:

This site will continue to be monitored once every five years until it has met success criteria. ***Project is fully implemented but has not attained cover goals. Composition goals have been attained.***

60 Tree Planting Along Public Roadways

Legal Reference: 1991 EIR Impact Table 4-3	
1991 EIR Impact:	**Mitigation Measure/Provision:**
N/A	This project consisted of planting new trees and maintaining new and existing trees along roadways within the towns of Laws, Big Pine, Independence, and Lone Pine.

Project Goal:

This project was implemented in Laws, Independence, and Lone Pine as an LADWP Enhancement/Mitigation Project in 1988. Additional planting occurred in Big Pine in 1992. The goal of this project was to provide shade and greenways in Owens Valley communities to mitigate trees lost since the 1970's due to a reduction in surface water irrigation, higher water costs, age, disease, etc. DWP was responsible for purchasing and planting the trees and replacement once within two years if needed.

Progress to Date:

The project was deemed categorically exempt (Class 4) so no further CEQA evaluation was pursued prior to implementation. Per this project's final scoping document, LADWP was responsible for "first costs"; maintenance such as trimming and spraying is to be the responsibility of the adjacent property owner. Trees planted included Modesto ash, Chinese pistachio, Idaho locust, cedar, hawthorn, and Arizona cypress. This project resulted in 14 trees planted at Laws Museum, approximately 130 trees in Big Pine (Arizona cypress), 84 in Independence, and 77 in Lone Pine.

Water Commitment:

None. Water used to maintain the trees is the responsibility of the adjacent property owner. Irrigation systems are served by the town water systems (via LADWP).

Current Status:

Project is complete.

61 Tule Elk Field

Legal Reference: 1991 EIR Impact Table 5-2	
1991 EIR Impact:	**Mitigation Measure/Provision:**
	Under this project, water is provided to a field that is heavily used in summer by Tule elk, near U.S. Highway 395 and Tinemaha Reservoir.

Project Goal:

The goal of this project is to provide water to and convert an area that is heavily used by a tule elk herd to an alfalfa field north of Tinemaha Reservoir. This will enhance/ expand tule elk feeding grounds in the Owens Valley.

Progress to Date:

This project was implemented as and LADWP Environmental Project in the 1970's.

Water Commitment:

There is no firm water commitment to this project, however LADWP provides an average of 200 AFY from Tinemaha Creek for this project.

Between 1970 and 1984, LADWP committed approximately 10,000 AFY to implement and maintain a series of environmental projects. This volume includes the supply for this project.

Current Status:

Water continues to be provided annually to this project for irrigation. ***This project is implemented and ongoing.***

62

Van Norman Fields

Legal Reference: 1991 EIR Impact 10-16	
1991 EIR Impact:	**Mitigation Measure/Provision:**
10-16: Approximately 1,080 acres of formerly irrigated lands had not successfully revegetated following the abandonment of agriculture. This was a significant adverse impact because these lands had a loss of vegetation and were the source of blowing dust.	As part of the enhancement/mitigation projects implemented by LADWP and Inyo County since 1985, approximately 942 acres of these abandoned agricultural lands have been revegetated with irrigated pasture or alfalfa. These areas are the Independence Pasture and native pasture lands, the Van Norman and Richards Fields, and the Lone Pine Woodlot adjacent to Lone Pine.

**Also noted in EIR Table 4-3.*

Project Goal:

The goal of this project is revegetate approximately 160 acres of native pasture east of Lone Pine that was removed from irrigation in 1964. The irrigation system for this project will be supplied by a new well (W390) to be drilled at the site and the site will be flood irrigated through new and existing ditches. The new well will only draw water from the deep aquifer.

Progress to Date:

LADWP prepared an Initial Study and Negative Declaration for this project in December 1986. The Notice of Determination for this project was filed in January 1987. This project was implemented as an LADWP Enhancement/Mitigation Project in 1987 as described.

In 1999, the project was modified to allow the Lone Pine Unified School District to lease nine acres within the Van Norman Project to be used for the Lone Pine Future Farmers of America (FFA). This modification was found to be of equal or greater mitigation than the original project. Water will be supplied from Well 390 not to exceed 30 AFY for the FFA portion, and this amount will be subtracted from the total allotment for the Van Norman Enhancement Mitigation Project.

The project was further modified by the Standing Committee April 22, 2014 to remove 10 acres from the Van Norman ranch lease to expand the Use Permit held by the Lone Pine Unified School District for the Lone Pine FFA.

Well 390 met the end of its service life and was replaced with Well 425 in 2014.

Water Commitment:

The Inyo/Los Angeles Water Agreement provides that all enhancement/mitigation projects implemented between 1984 and 1990 will continue and will be supplied with an average of 30,000 AFY from enhancement/mitigation wells as necessary. Water is currently supplied to this project from W425.

A water allotment of 452 AFY is being provided to 150 acres of native vegetation. 480 AFY and 160 acres was the specified amount in an E/M Evaluation in 1988. However, in 1999 the Standing Committee approved splitting off a small portion (10 acres) of the Van Norman Fields for the Lone Pine FFA and the water allotment was split into 452 AFY for the Van Norman Field and 28 AFY for the Lone Pine FFA.

Current Status:

Water continues to be provided annually to the project for irrigation. ***Project is implemented and ongoing.***

63 Warren Lake Project

Legal Reference: Additional Mitigation Projects Developed by the MOU Ad Hoc Group (MOU Section III.A.3), Second Amendment of Amended Stipulation and Order S1CVCV01-29768.

Project Goal:

The intent of this project is to serve to balance the annual 1600AF water commitment from the other 7 Additional Mitigation Projects. It was not intended to be used in all years. When in operation, the goal for the Warren lake project is to increase shorebird, waterfowl and wildlife habitat by providing additional water to the site. Depending on the water supplied on a given year, there is an increase in wet meadow and seasonal wetland habitats.

Progress to Date:

LADWP produced and released an Initial Study (IS) and Mitigated Negative Declaration (MND) for the Additional Mitigation Projects for public review March 23-April 26, 2010. The Notice of Determination for the projects was filed June 1, 2010.

All construction required to implement and operate the project as proposed was complete by April 2011. During implementation, LADWP installed a new Parshall Flume and flow meter and removed all saltcedar from the project area.

Since implementation, the Warren Lake Project has been used in all years due to other Additional Mitigation Projects not supplying water that was anticipated (e.g., creek flows were low due to drought, artesian well projects did not supply full water allotment to projects). In the first two years post implementation, LADWP temporarily used concrete blocks in the Big Pine Canal to back up flow in the canal to divert the required water balance to the project. This was not a permanent solution and began causing significant erosion in the Big Pine Canal. Subsequently, LADWP constructed a concrete check wall structure and road crossing over the Big Pine Canal to better facilitate flows to the Warren Lake Project (see photo). This structure has been effective in reducing erosion along the banks of the canal and results in more efficient delivery of flows to the project when needed.

Since implementation of all of the Additional Mitigation Projects in 2012, LADWP has delivered on average 19% (297 AF) of the annual 1600 AF commitment to the Warren Lake Project (see table below). This project was only intended to be used moderately in some years and has been used far more than anticipated.

Year	Warren Lake Project Total Acre Feet (AF) Supplied
Project Target	**0**
2012-2013	221
2013-2014	265
2014-2015	325
2015-2016	364
2016-2017	275
2017-2018	334
2018-2019	310
2019-2020	285
2020-2021	296
Average	**297**

Periodic weed treatment has occurred since implementation of this project. Currently, no weeds are noted at this site. The extensive flooded acreage has been problematic for the lessee at the site annually as it has taken away good forage for winter grazing.

Five Year Evaluation:

LADWP completed the required 5-year evaluation of the Additional Mitigation Projects in 2017. The evaluation was provided to the MOU Parties and the public as part of LADWP's 2017 Annual Owens Valley Report. In this evaluation, LADWP recommended discontinuing much of the annual photo point and other vegetation monitoring and mapping 5 years post implementation. Monthly flow monitoring will continue as well as periodic monitoring and treatment of invasive species. This information will continue to be provided in LADWP's annual report.

Project Photo:

New Check Wall and Road Crossing in the Big Pine Canal (July 2014).

Water Commitment:

There is no specific water commitment for this project. However, this project shall make up the remainder of the 1600AF water commitment if the other 7 Additional Mitigation Projects have a shortfall (per the Additional Mitigation Projects Developed by the MOU Ad Hoc Group document and Second Amendment of Amended Stipulation and Order S1CVCV01-29768).

Current Status:

Water continues to be provided annually to this project as necessary to fulfill the 1600AF requirement. Flow monitoring will continue monthly and will be reported in LADWP's Annual Owens Valley Report. ***Project is implemented and ongoing.***

64 Well 368 Project

Legal Reference: Additional Mitigation Projects Developed by the MOU Ad Hoc Group (MOU Section III.A.3), Second Amendment of Amended Stipulation and Order S1CVCV01-29768.

Project Goal:

The goal of this project is to create and enhance spring and riparian habitat, while maintaining or improving conditions for an existing population of endangered Owens pupfish. Another complementary goal is to provide redundancy in water supply to the existing habitat in the event that Well 368 was to fail. This project will also create a stock watering area in the vicinity to allow more flexible livestock management by Lacey Livestock (lessee).

Progress to Date:

LADWP produced and released an Initial Study (IS) and Mitigated Negative Declaration (MND) for the Additional Mitigation Projects for public review March 23-April 26, 2010. The Notice of Determination for the projects was filed June 1, 2010.

All construction required to implement and operate the project as proposed was complete by February 2012. During implementation, LADWP drilled a new artesian well, and installed a pipeline and stockwater trough. Water was released to the project in February 2012.

The table below depicts water supplied to the Well 368 project since implementation, which was lower in some years due to drought conditions.

Year	Well 368 Project Total Acre Feet (AF) Supplied
Project Target	**150**
2012-2013	133
2013-2014	124
2014-2015	124
2015-2016	150
2016-2017	157
2017-2018	190
2018-2019	136
2019-2020	190
2020-2021	152
Average	**151**

There is diverse riparian vegetation around the pipe outfall and down the channel of the Well 368 project. Some narrowleaf willows in the project area exhibited willow cankers for a few years during early project monitoring but appear to have overcome them and are showing significant new growth. The pupfish marsh has provided suitable spring habitat and continues to harbor a resilient population of Owens pupfish; however, cattails are choking out this ponded area. The lower pond downstream of the pupfish marsh expands in the winter and dries back in the summer with evapotranspiration. It has well established and diverse riparian woody and herbaceous species but maintains open water habitat for pupfish in the winter months.

Saltcedar has been problematic for this area since implementation. LADWP has and will continue to remove saltcedar from the project area as needed. LADWP may assist CDFW in removing cattails at the pupfish marsh to reestablish open water and improve pupfish habitat if pursued by CDFW. Bullfrogs are also present onsite; removal of bullfrogs will be conducted by CDFW if warranted.

Five Year Evaluation:

LADWP completed the required 5-year evaluation of the Additional Mitigation Projects in 2017. The evaluation was provided to the MOU Parties and the public as part of LADWP's 2017 Annual Owens Valley Report. In this evaluation, LADWP recommended discontinuing much of the annual photo point and other vegetation monitoring and mapping 5 years post implementation. Monthly flow monitoring will continue as well as periodic monitoring and treatment of invasive species. This information will continue to be provided in LADWP's annual report. The project will continue functioning as described with the water allotment for the project remaining at 150 AF annually.

Project Photo:

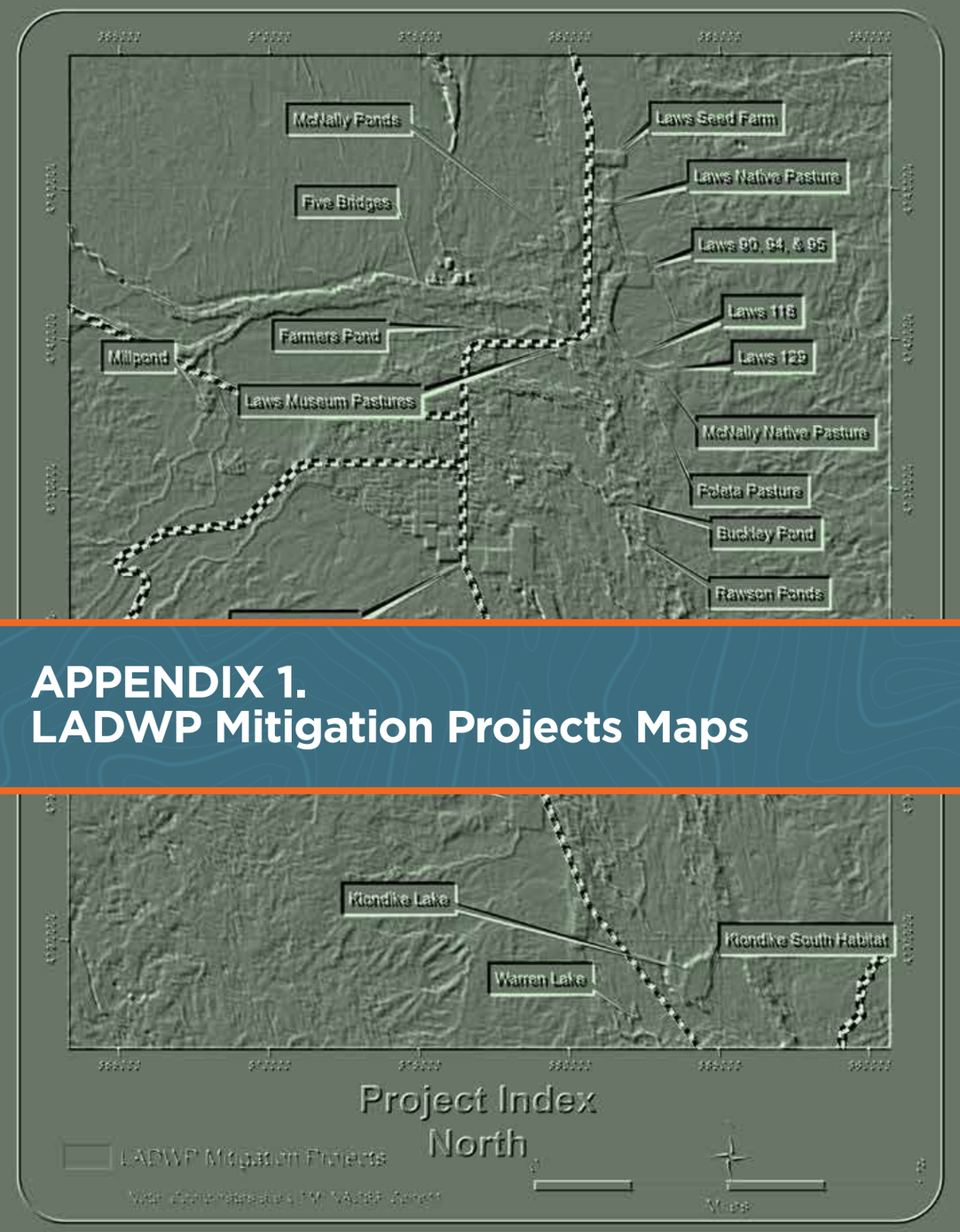
Well 368 Lower pupfish pond (May 2020).

Water Commitment:

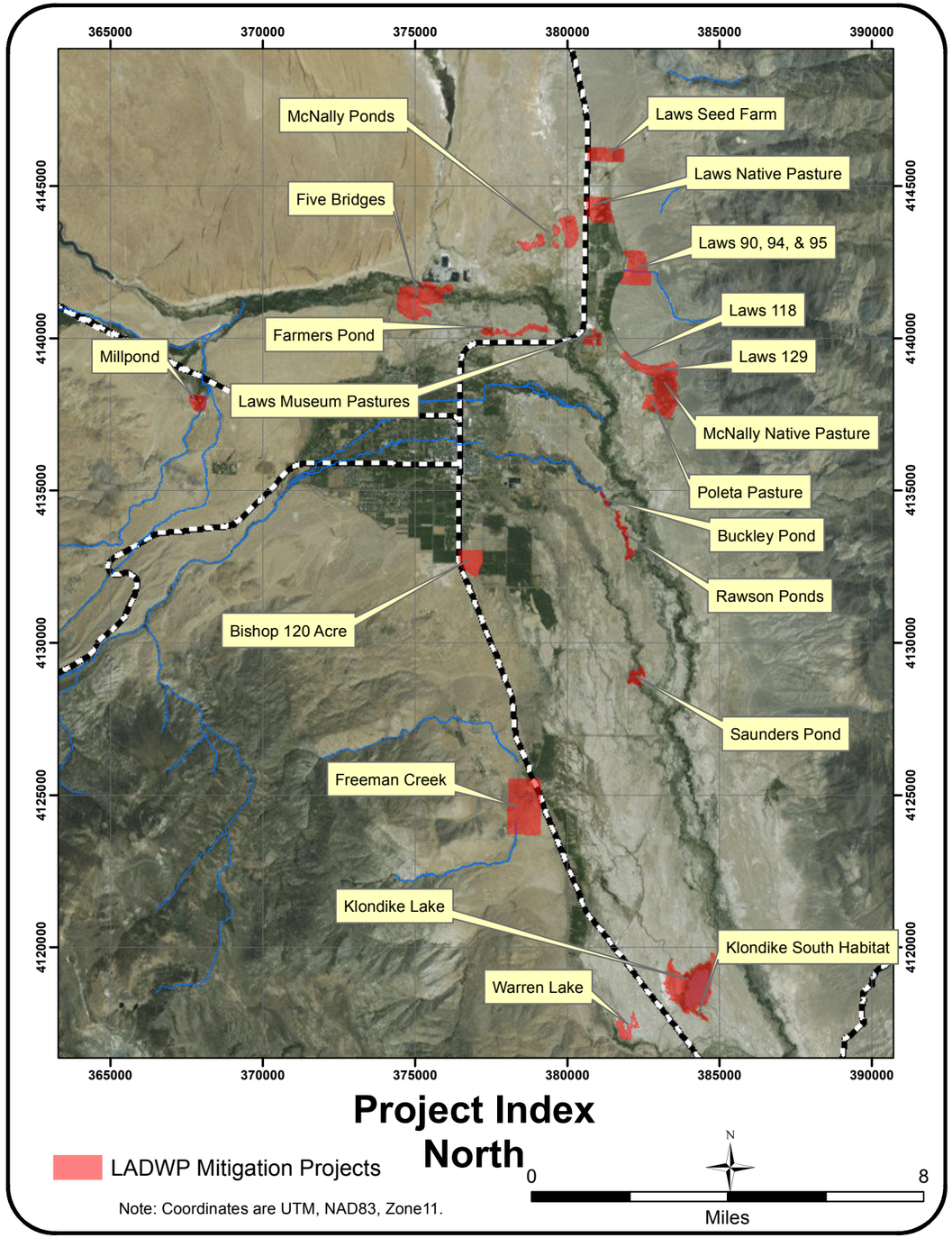
150 AFY per the Additional Mitigation Projects Developed by the MOU Ad Hoc Group document and Second Amendment of Amended Stipulation and Order S1CVCV01-29768.

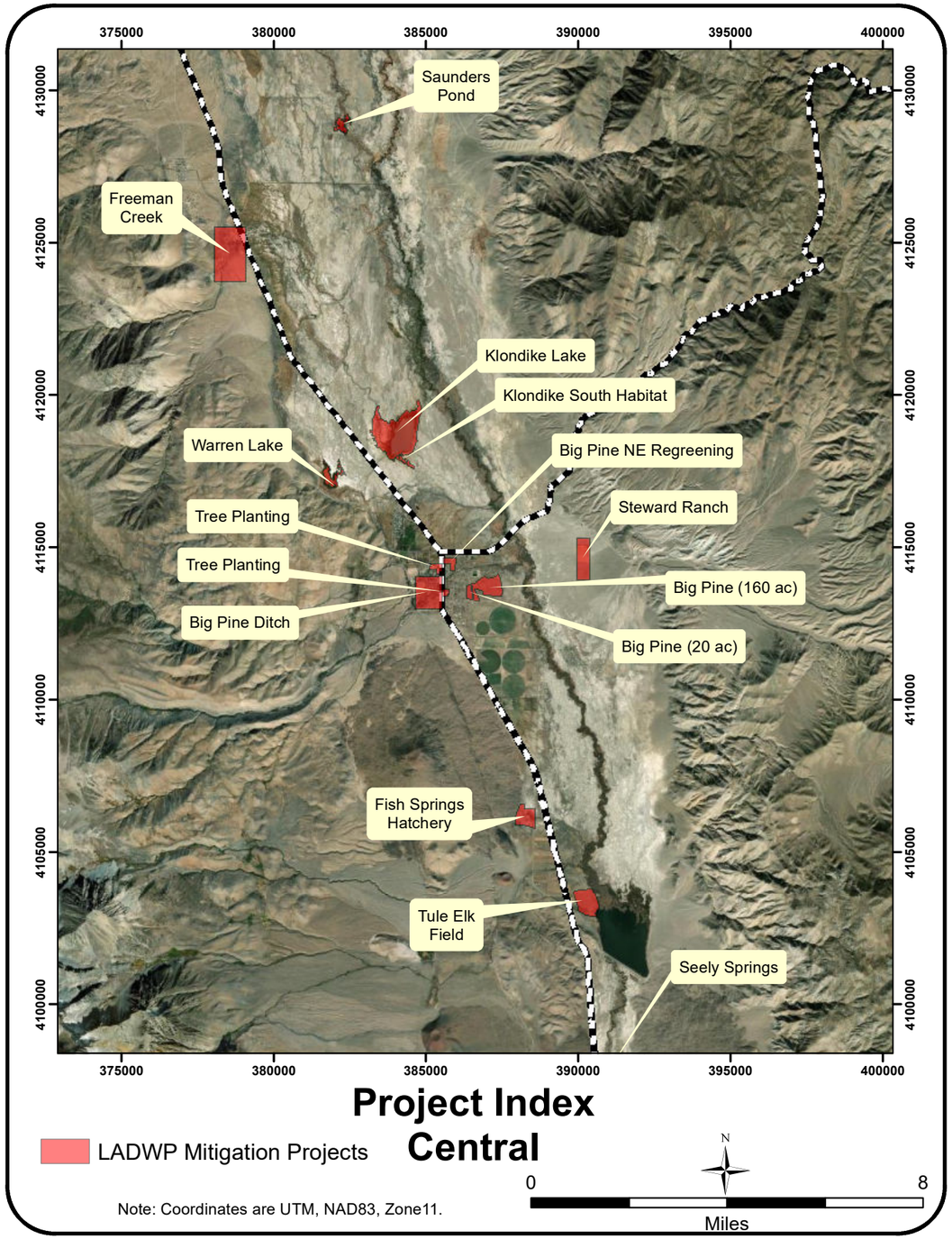
Current Status:

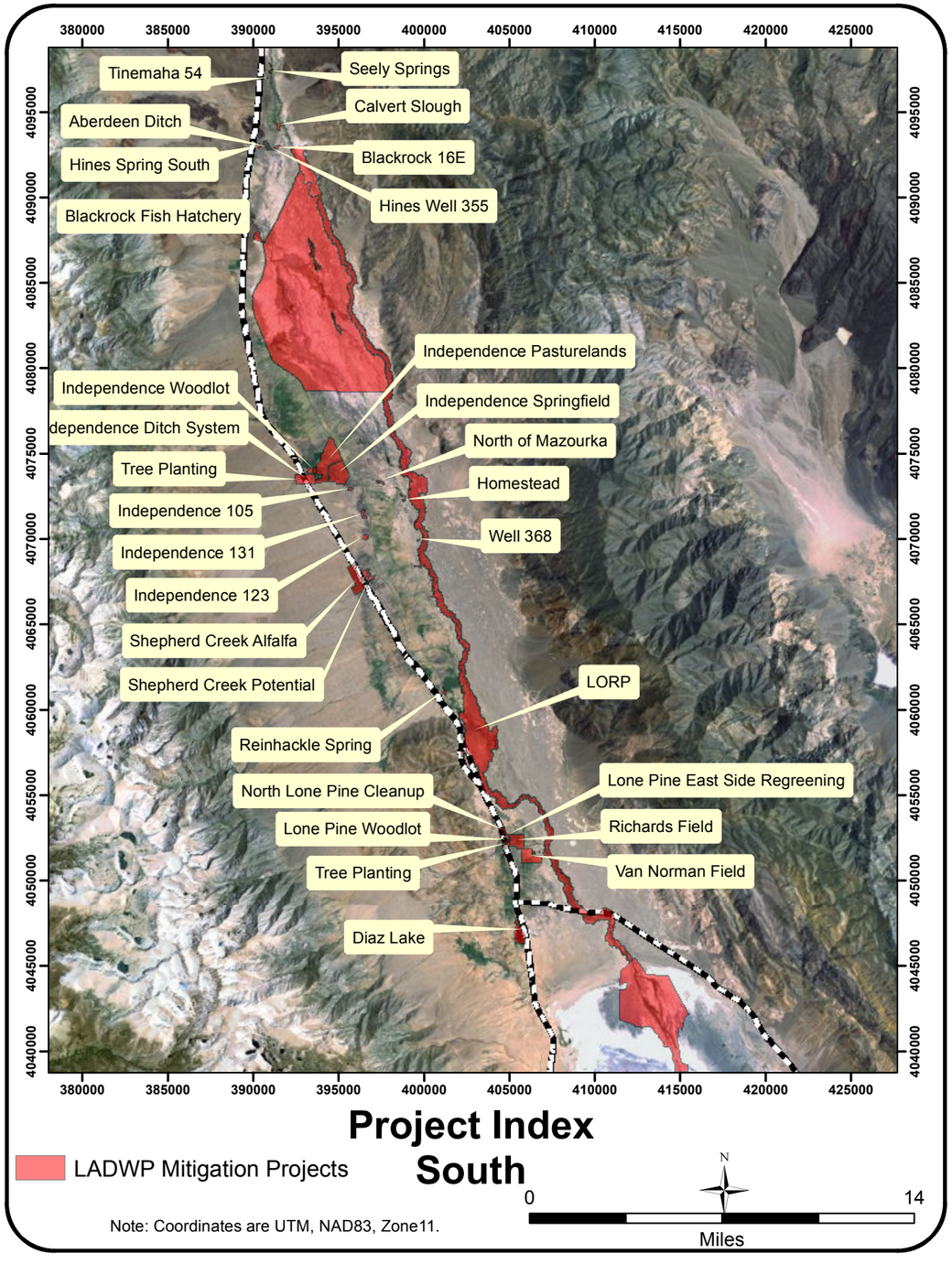
Water continues to be provided annually to this project. Flow monitoring will continue monthly and will be reported in LADWP's Annual Owens Valley Report. The project will continue functioning as described in the Additional Mitigation Projects document with the water allotment for the project remaining at 150 AF annually. ***Project is implemented and ongoing.***



APPENDIX 1.
LADWP Mitigation Projects Maps


McNally Ponds
Laws Seed Farm
Laws Native Pasture
Five Bridges
Laws 90, 94, & 95
Laws 118
Farmers Pond
Millpond
Laws 129
Laws Museum Pastures
McNally Native Pasture
Poleta Pasture
Buckley Pond
Rawson Ponds
Bishop 120 Acre
Saunders Pond
Freeman Creek
Klondike Lake
Klondike South Habitat
Warren Lake
365000
370000
375000
380000
385000
390000
4145000
4140000
4135000
4130000
4125000
4120000
Project Index
North
LADWP Mitigation Projects
Note: Coordinates are UTM, NAD83, Zone11.
N
0
8
Miles


Saunders Pond
Freeman Creek
Klondike Lake
Klondike South Habitat
Warren Lake
Big Pine NE Regreening
Steward Ranch
Tree Planting
Tree Planting
Big Pine (160 ac)
Big Pine Ditch
Big Pine (20 ac)
Fish Springs Hatchery
Tule Elk Field
Seely Springs
375000
380000
385000
390000
395000
400000
4130000
4125000
4120000
4115000
4110000
4105000
4100000
Project Index
Central
LADWP Mitigation Projects
Note: Coordinates are UTM, NAD83, Zone11.
N
0
8
Miles



Project Index South

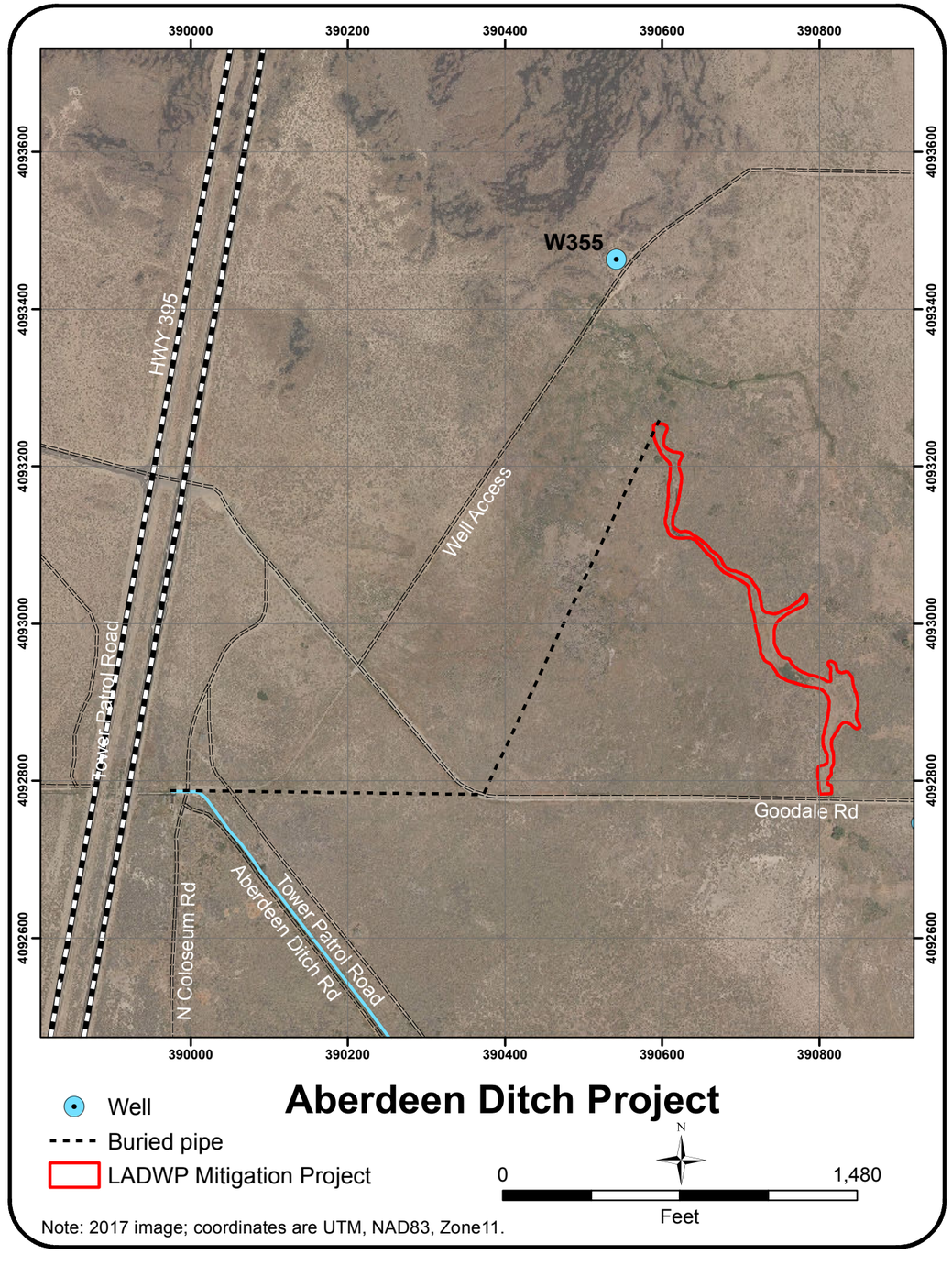
LADWP Mitigation Projects

Note: Coordinates are UTM, NAD83, Zone11.

N

0 14

Miles



Aberdeen Ditch Project

Well

Buried pipe

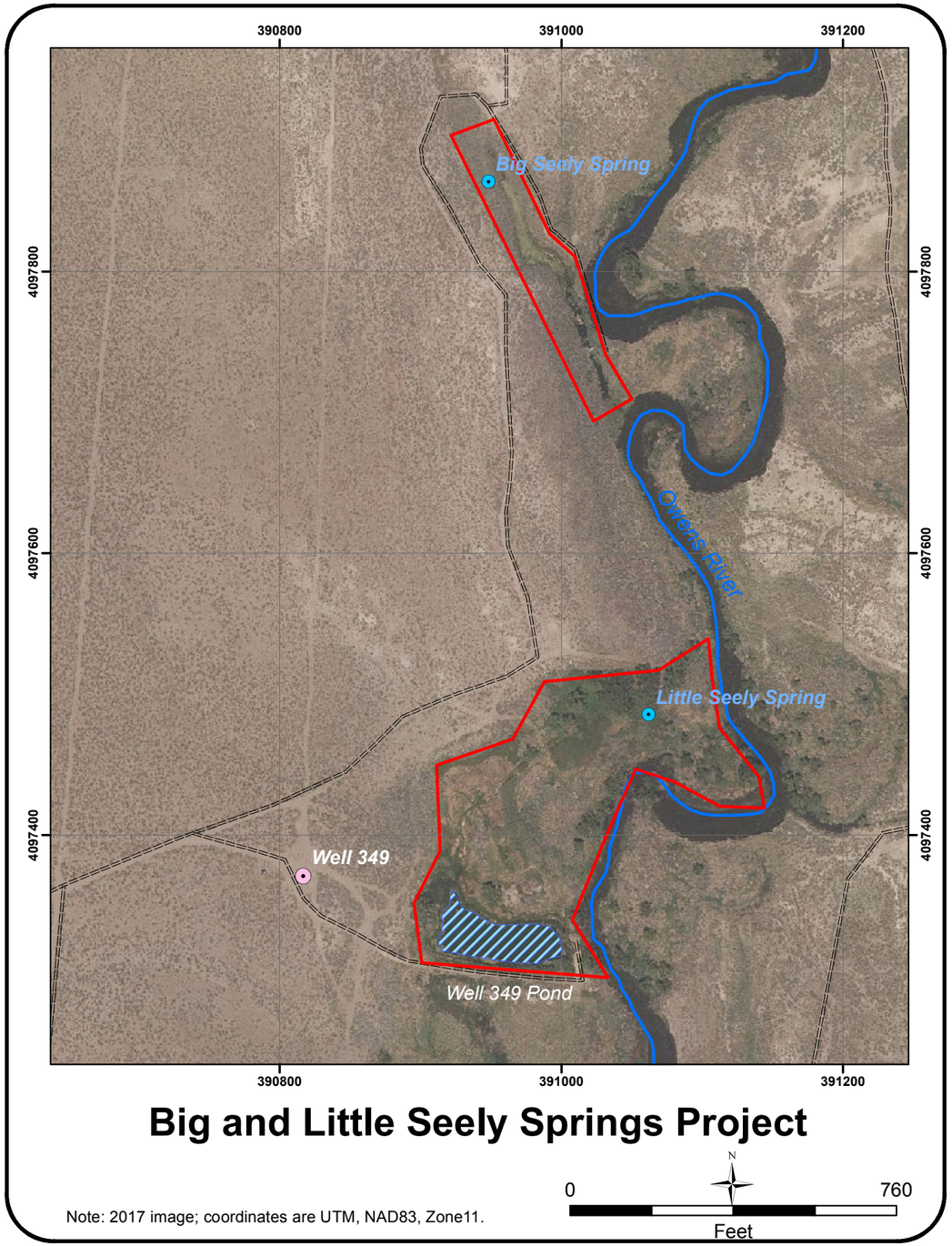
LADWP Mitigation Project

N

0 1,480

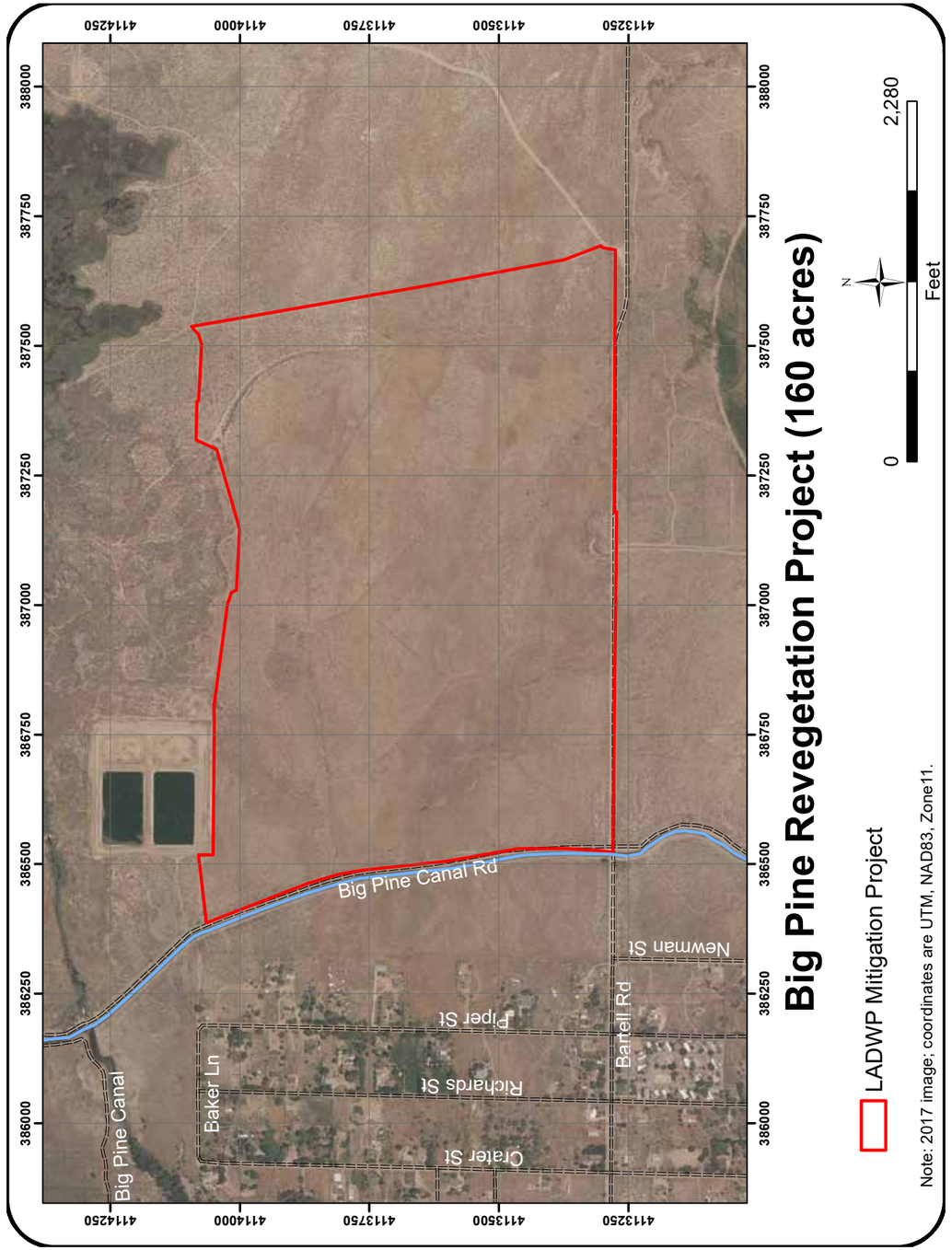
Feet

Note: 2017 image; coordinates are UTM, NAD83, Zone11.



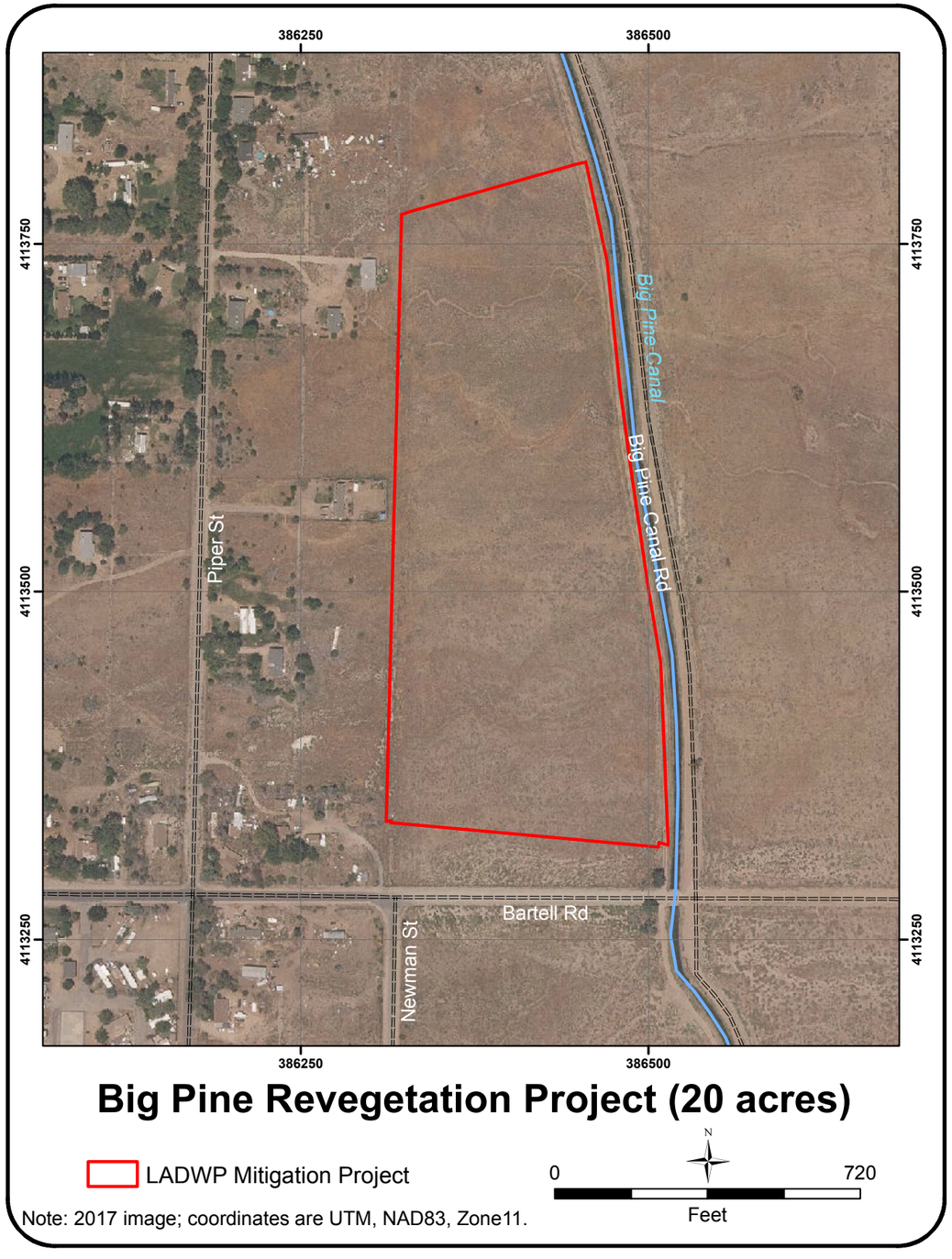
Big and Little Seely Springs Project

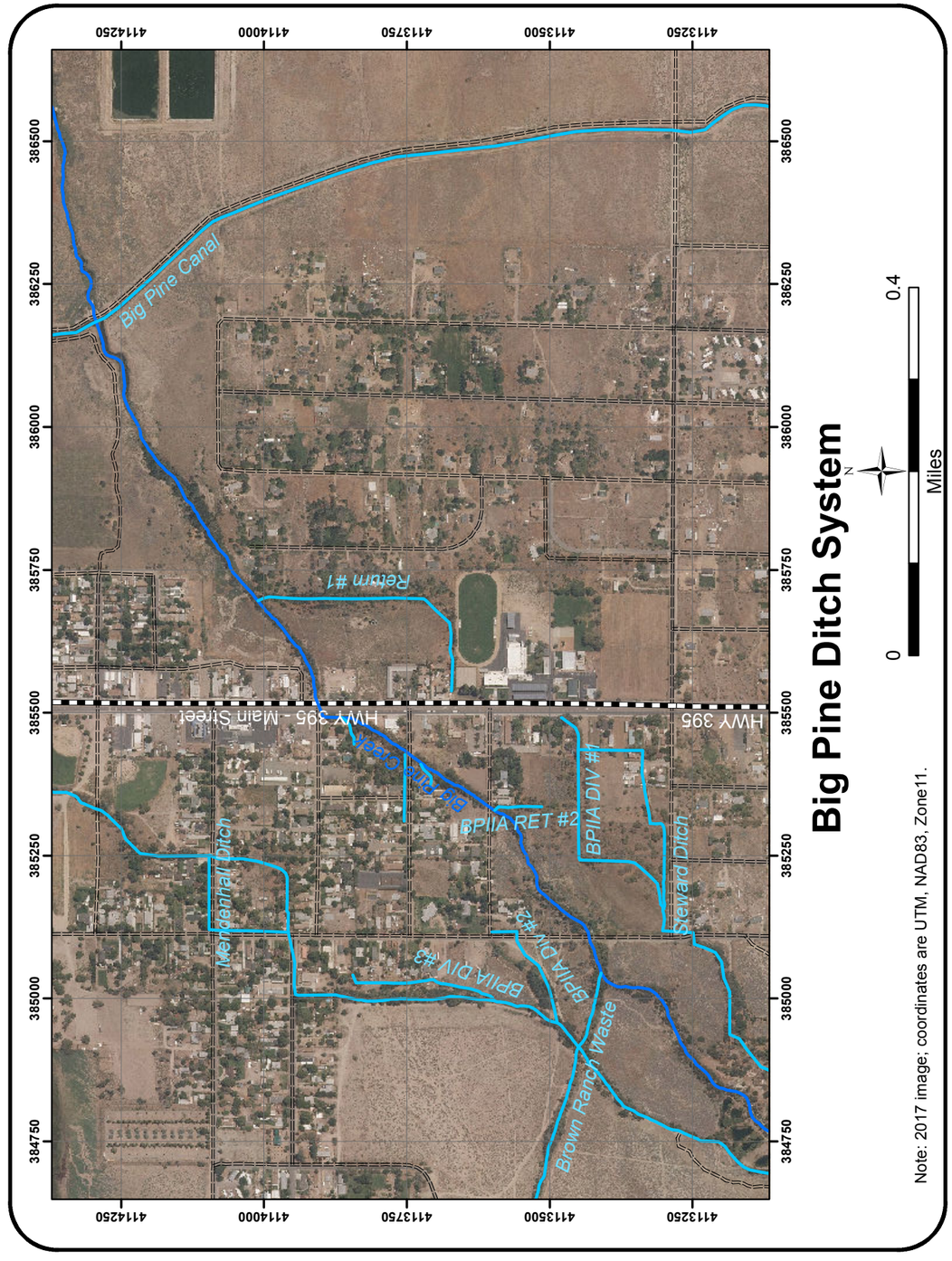
Note: 2017 image; coordinates are UTM, NAD83, Zone11.

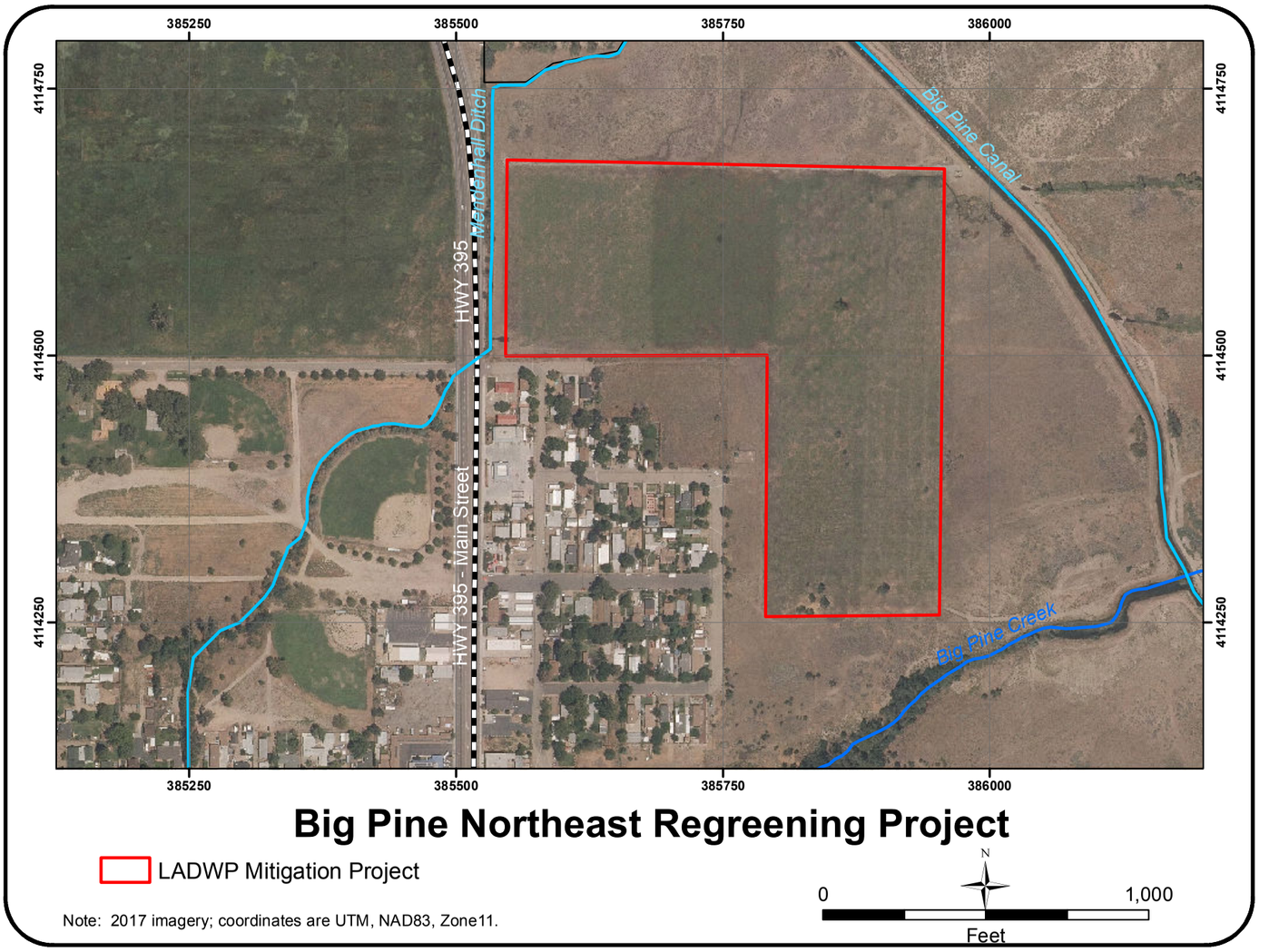


Big Pine Revegetation Project (160 acres)

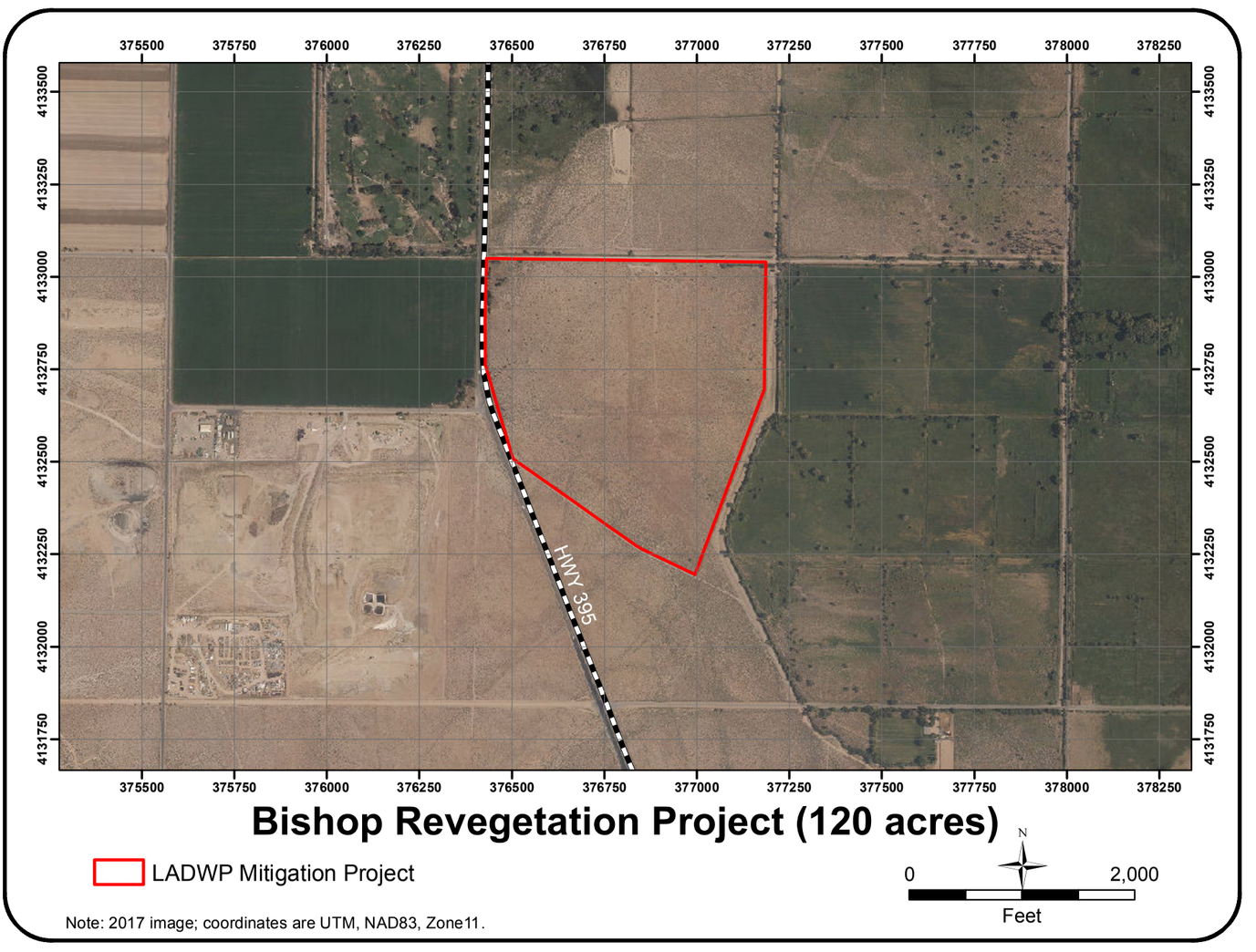
Note: 2017 image; coordinates are UTM, NAD83, Zone11.


386250
386500
4113750
4113500
4113250
Piper St
Big Pine Canal
Big Pine Canal Rd
Bartell Rd
Newman St
Big Pine Revegetation Project (20 acres)
LADWP Mitigation Project
0
720
Feet
N
Note: 2017 image; coordinates are UTM, NAD83, Zone11.

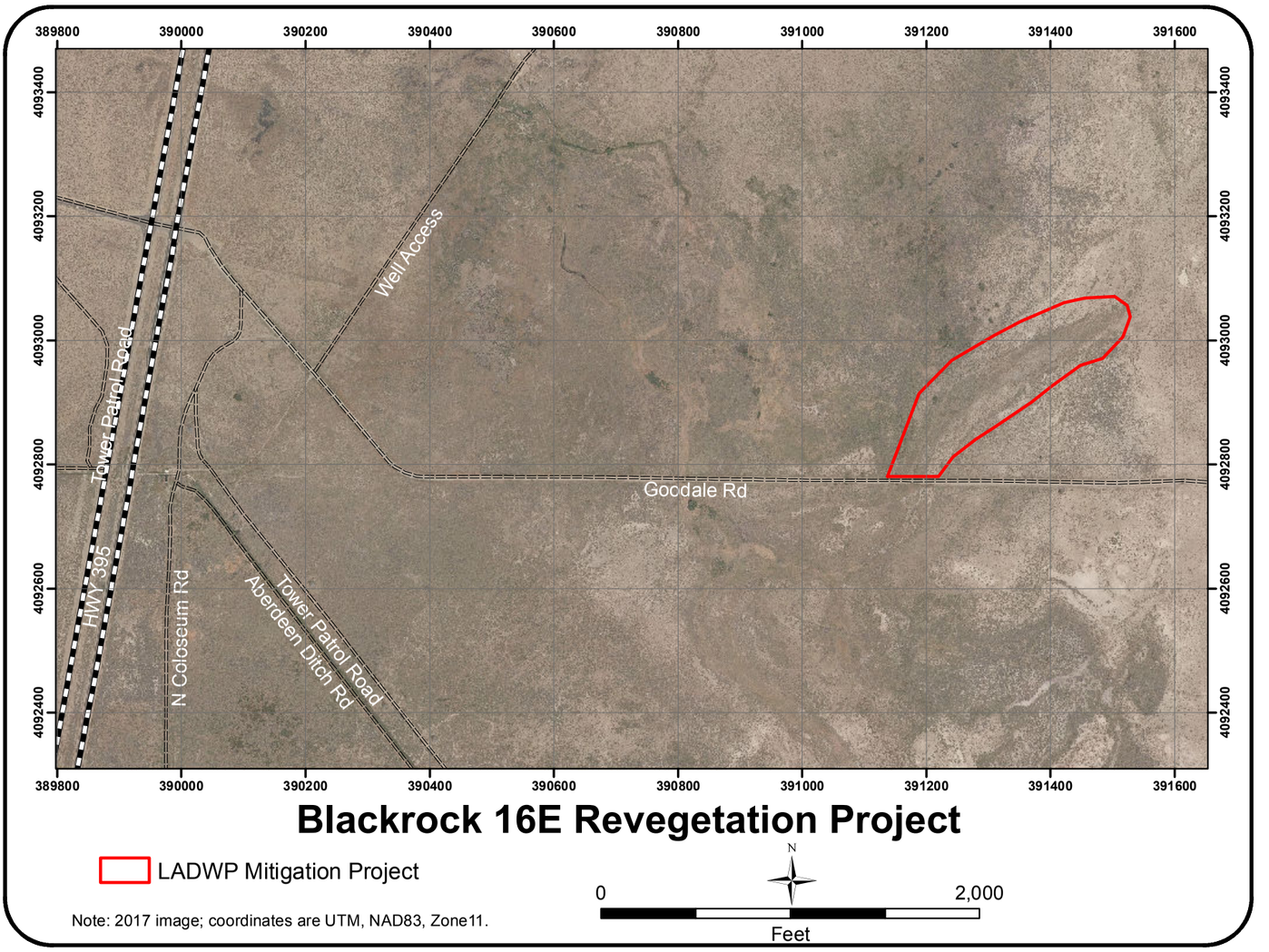

4113250
4113500
4113750
4114000
4114250
386500
386250
386000
385750
385500
385250
385000
384750
Big Pine Canal
Return #1
HWY 395 - Main Street
HWY 395
BPIIA RET #2
BPIIA DIV #1
BPIIA DIV #2
BPIIA DIV #3
Mendenhall ditch
Steward Ditch
Brown Ranch Waste
Big Pine Ditch System
0
0.4
Miles
N
Note: 2017 image; coordinates are UTM, NAD83, Zone11.



Big Pine Northeast Regreening Project

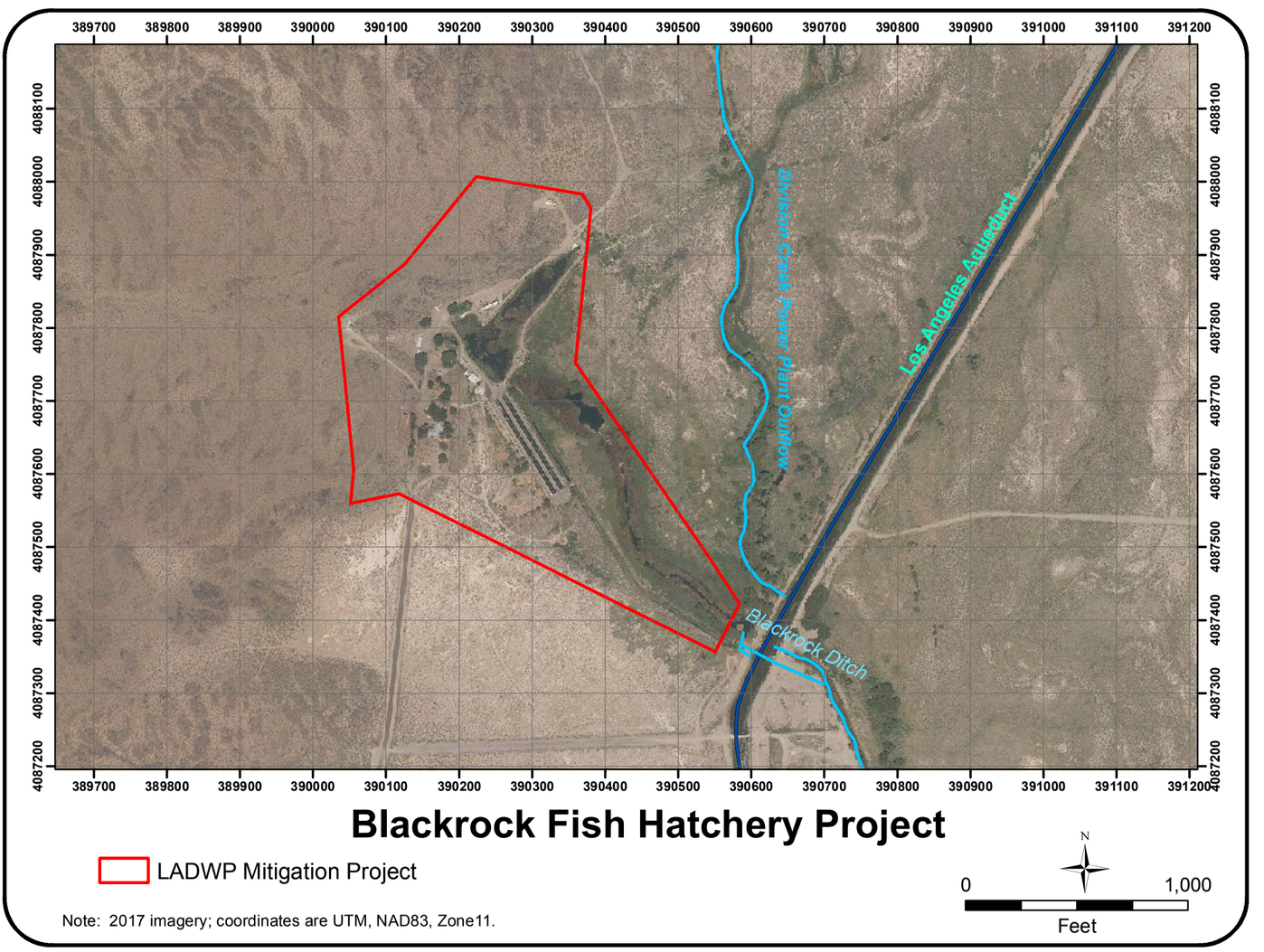


Bishop Revegetation Project (120 acres)



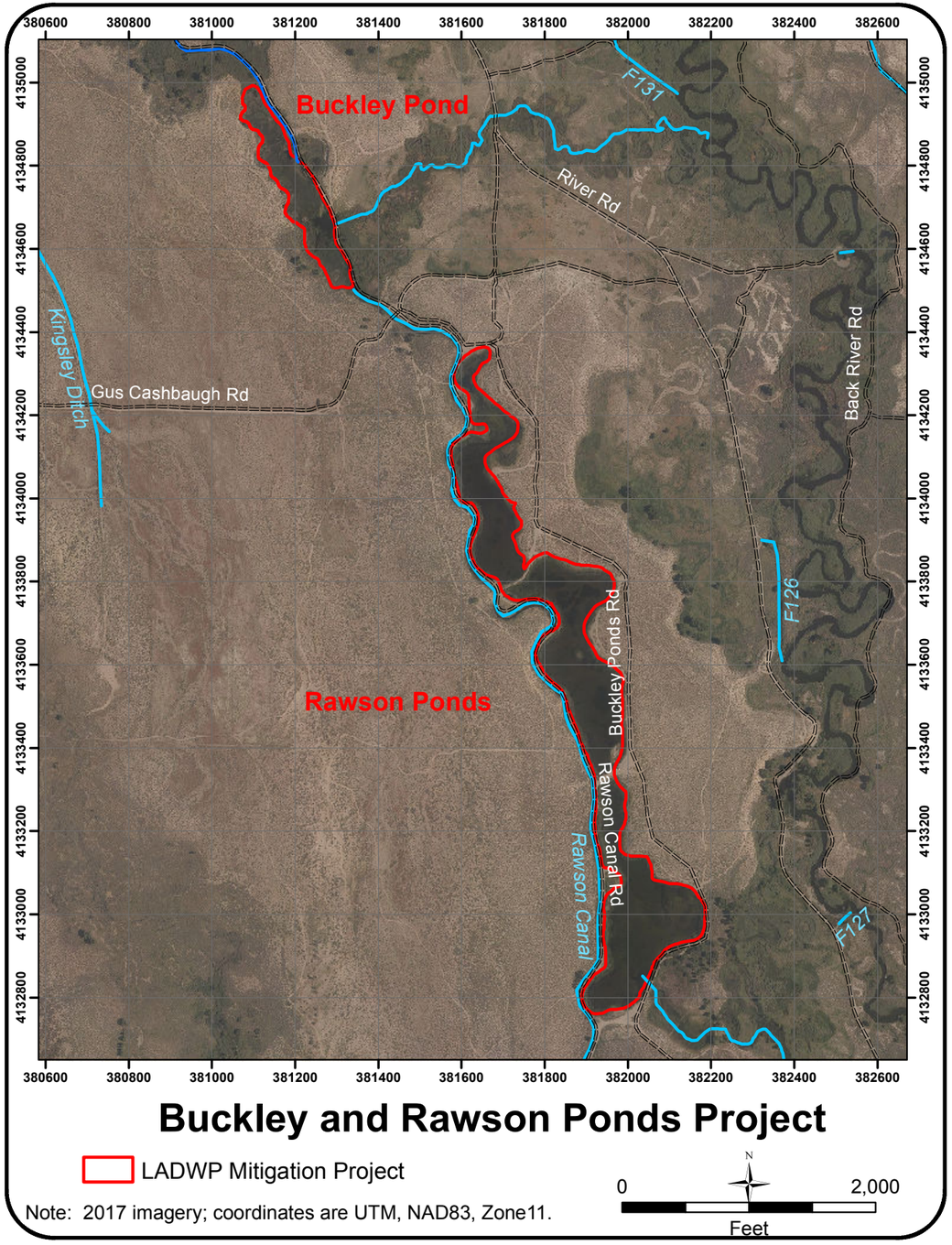
Blackrock 16E Revegetation Project

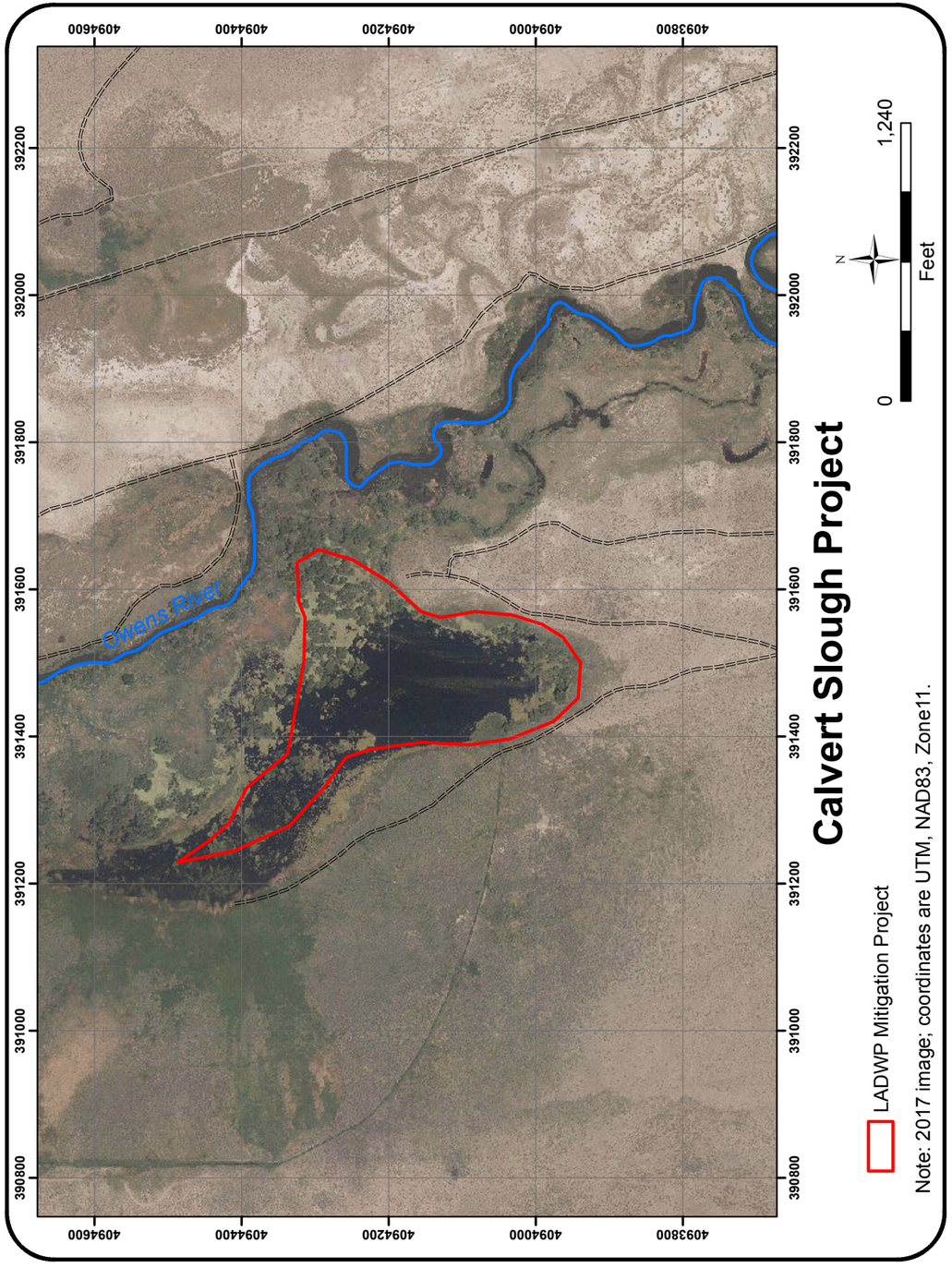
Note: 2017 image; coordinates are UTM, NAD83, Zone11.

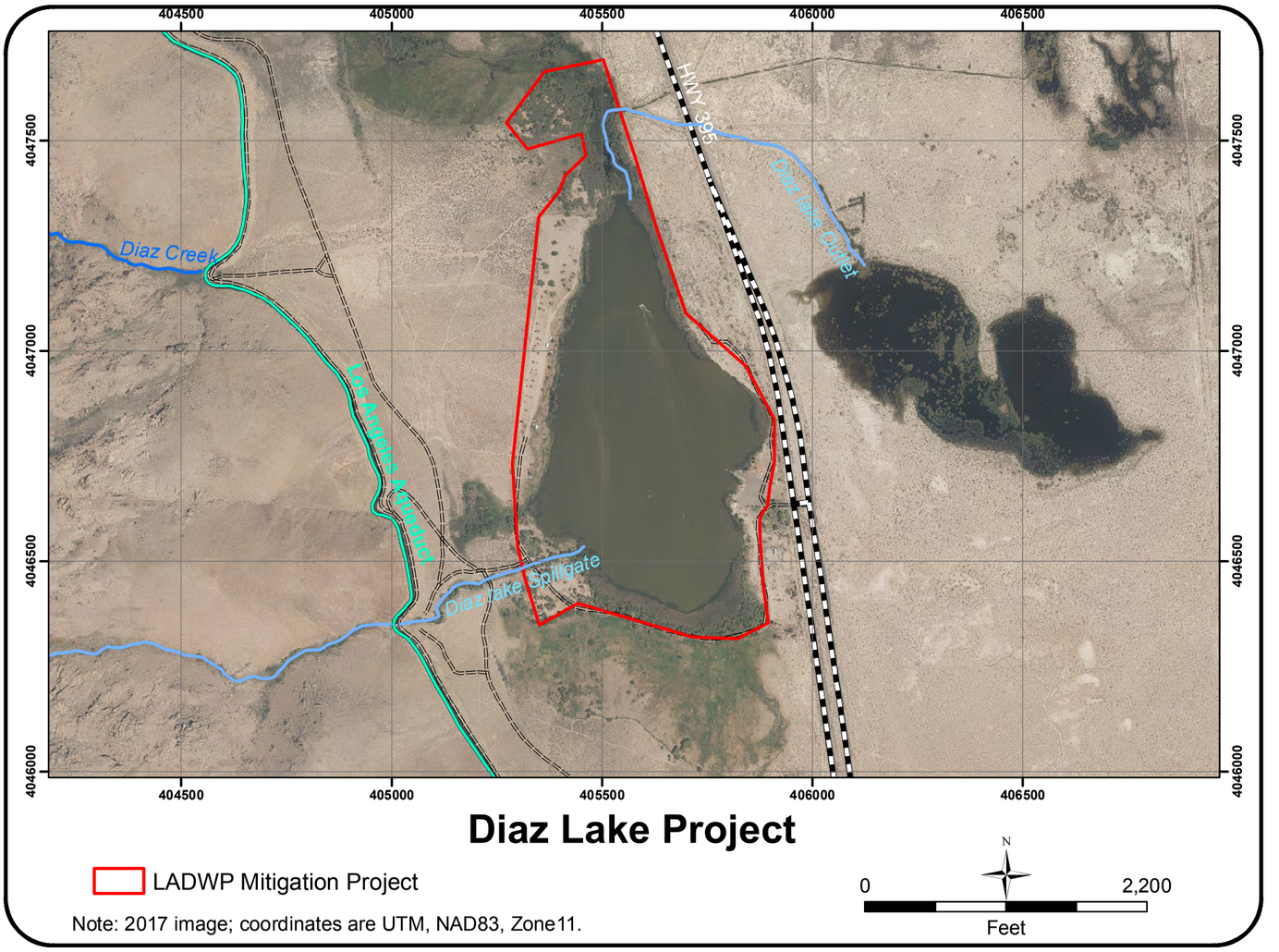


Blackrock Fish Hatchery Project

Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.


Buckley Pond
Rawson Ponds
River Rd
Gus Cashbaugh Rd
Kingsley Ditch
Back River Rd
Buckley Ponds Rd
Rawson Canal Rd
Rawson Canal
F131
F126
F127
380600
380800
381000
381200
381400
381600
381800
382000
382200
382400
382600
4135000
4134800
4134600
4134400
4134200
4134000
4133800
4133600
4133400
4133200
4133000
4132800
Buckley and Rawson Ponds Project
LADWP Mitigation Project
Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.
0
2,000
Feet
N


Owens River
4093800
4094000
4094200
4094400
4094600
392200
392000
391800
391600
391400
391200
391000
390800
Calvert Slough
LADWP Mitigation Project
Note: 2017 image; coordinates are UTM, NAD83, Zone11.
0
1,240
Feet
N



Diaz Lake Project

LADWP Mitigation Project

Note: 2017 image; coordinates are UTM, NAD83, Zone11.

N

0 2,200

Feet

Eastern California Museum

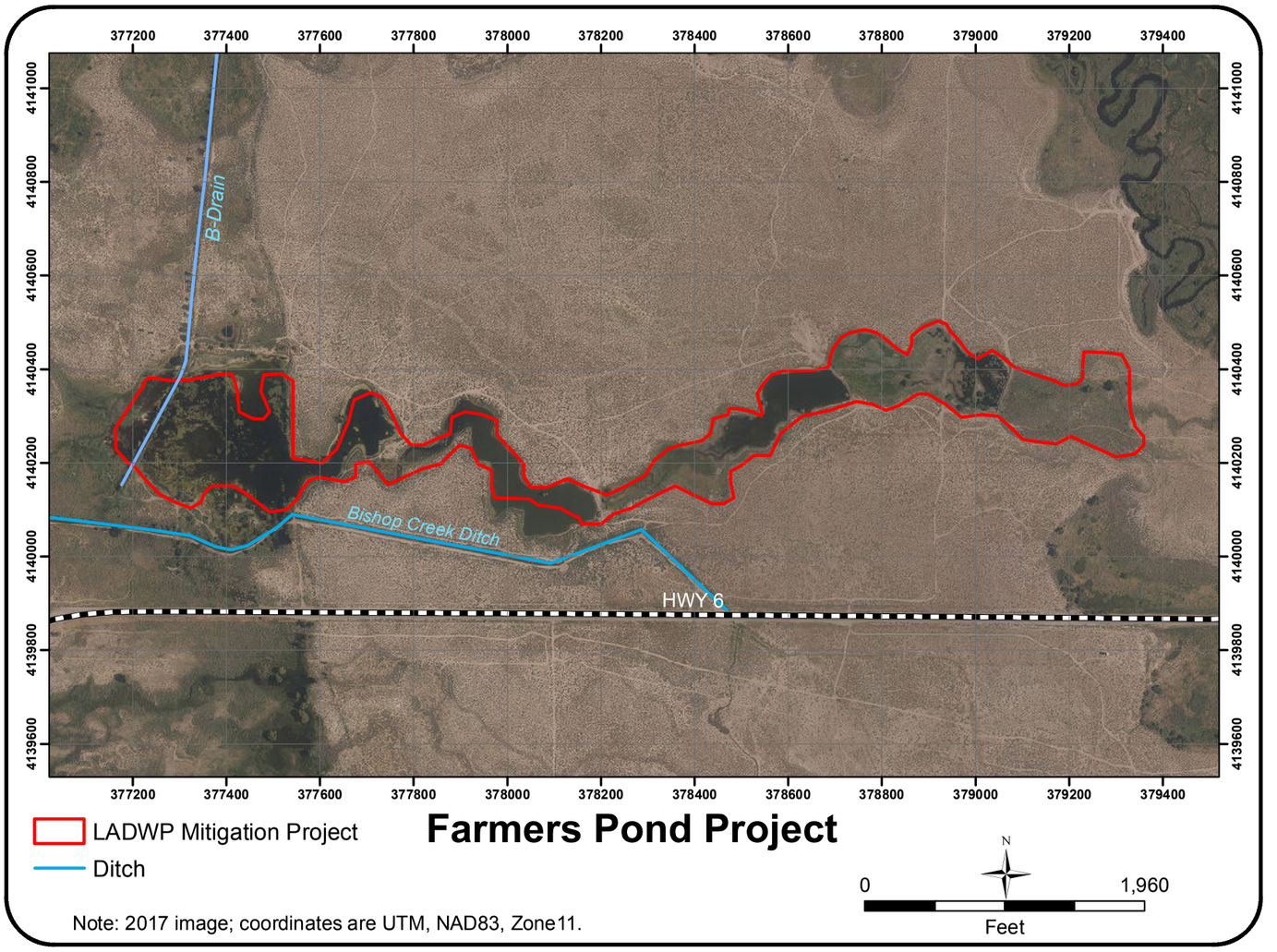
LADWP Mitigation Project

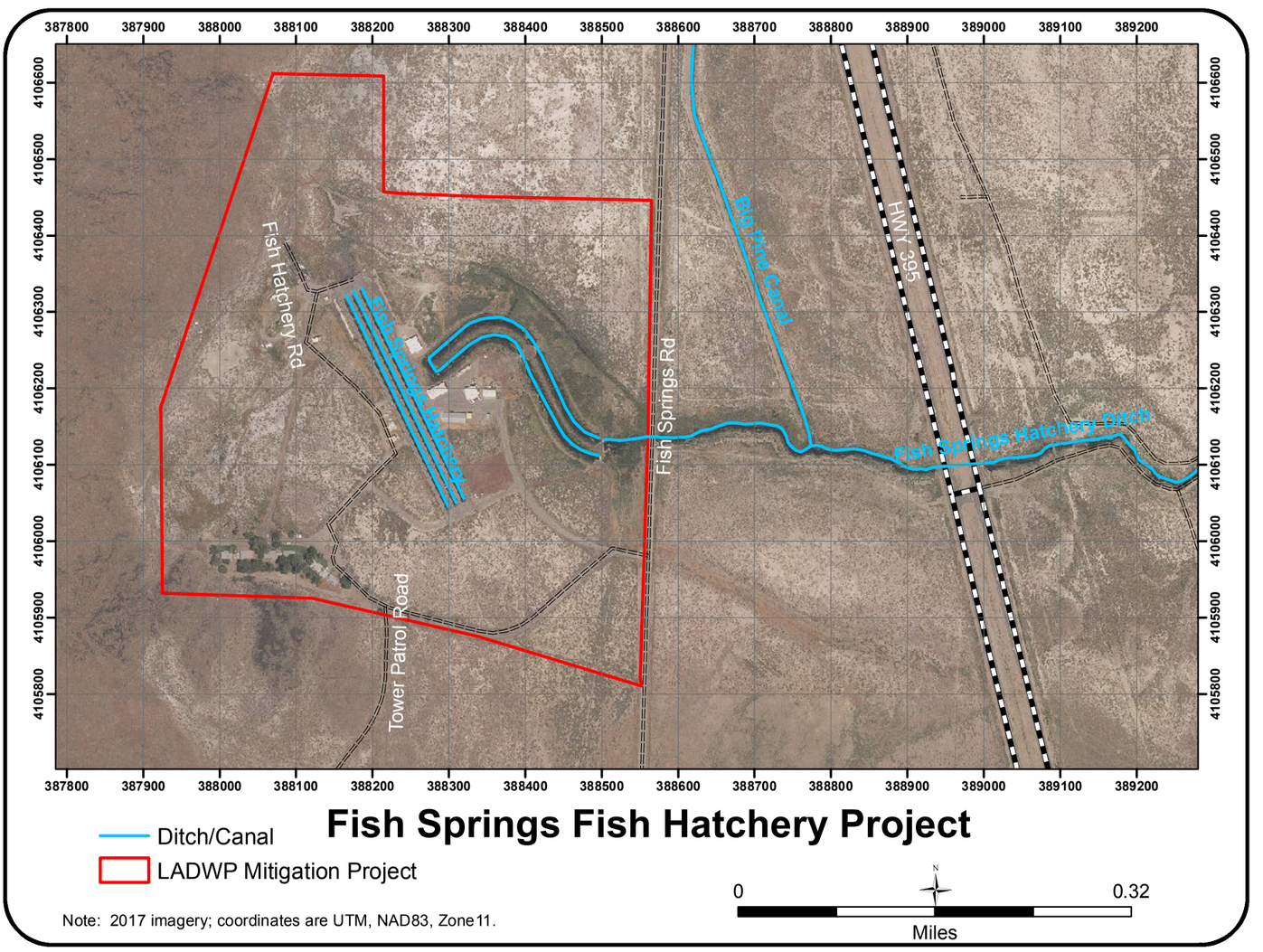
Note: 2017 image; coordinates are UTM, NAD83, Zone11.

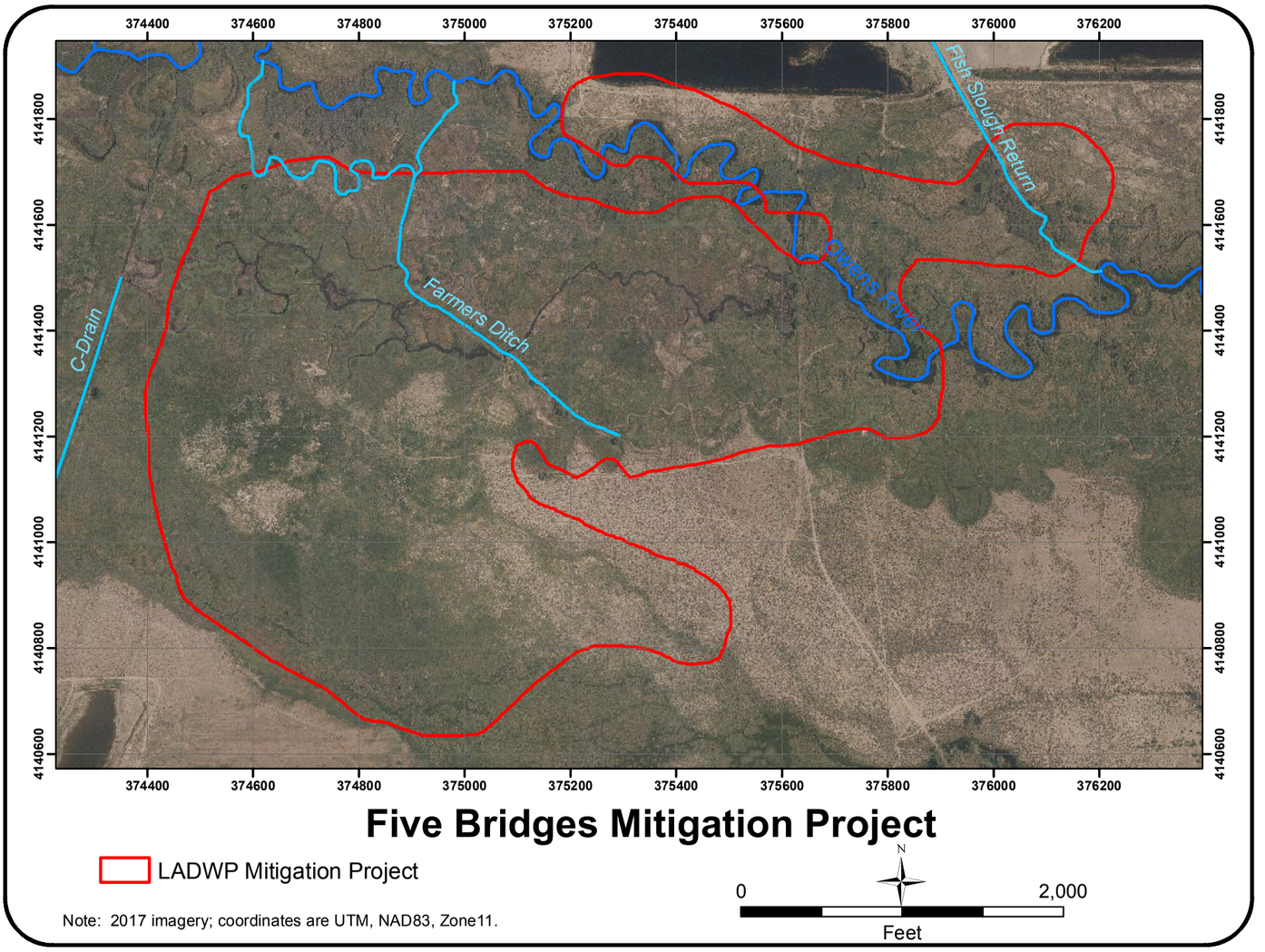
N

0 680

Feet


377200
377400
377600
377800
378000
378200
378400
378600
378800
379000
379200
379400
4141000
4140800
4140600
4140400
4140200
4140000
4139800
4139600
B-Drain
Bishop Creek Ditch
HWY 6
LADWP Mitigation Project
Ditch
Farmers Pond Project
N
0
1,960
Feet
Note: 2017 image; coordinates are UTM, NAD83, Zone11.


387800
387900
388000
388100
388200
388300
388400
388500
388600
388700
388800
388900
389000
389100
389200
4106600
4106500
4106400
4106300
4106200
4106100
4106000
4105900
4105800
Fish Hatchery Rd
Spring Waterway
Fish Springs Rd
Big Pine Canal
HWY 395
Fish Springs Hatchery Ditch
Tower Patrol Road
Ditch/Canal
LADWP Mitigation Project
Fish Springs Fish Hatchery Project
N
0
0.32
Miles
Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.



Five Bridges Mitigation Project

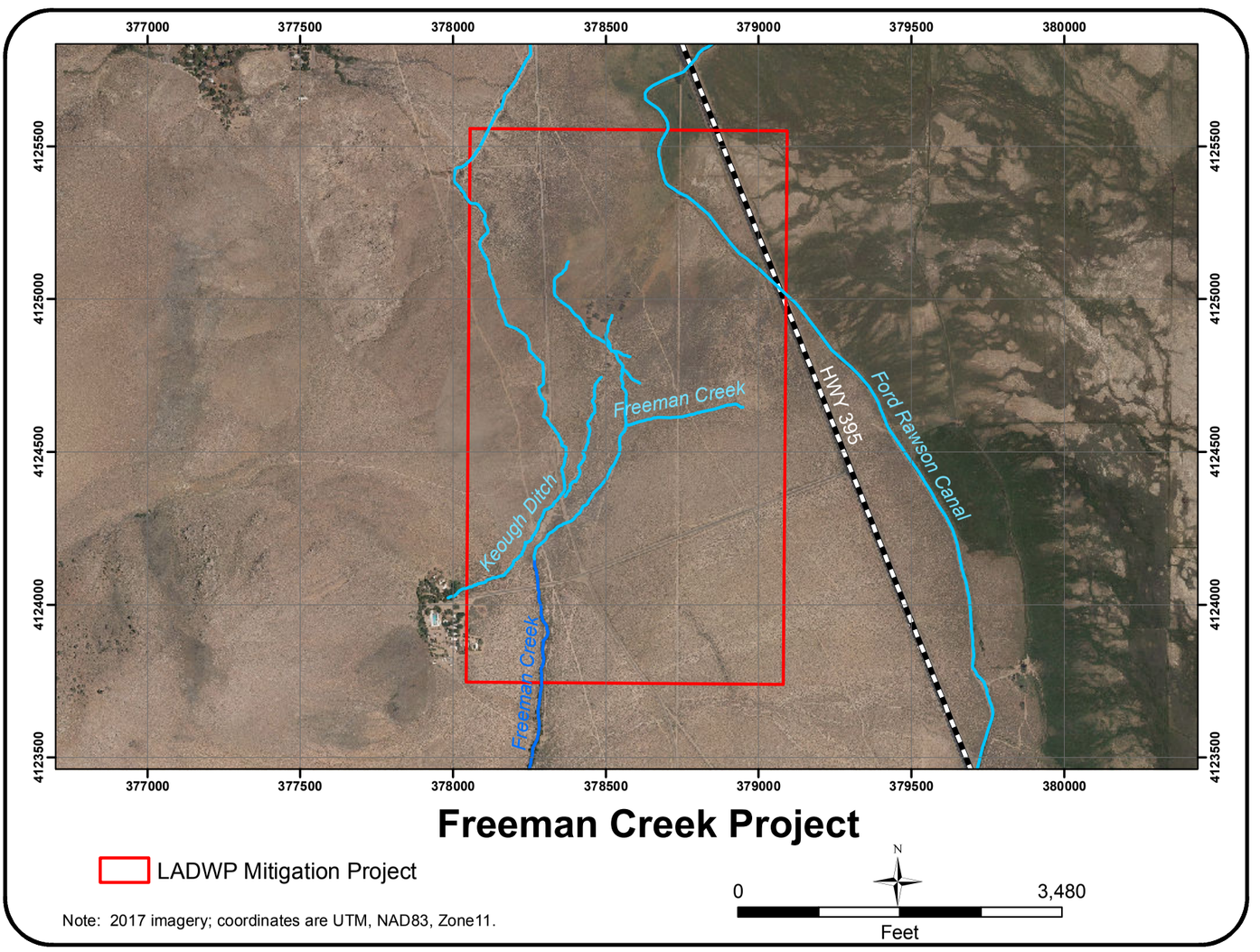
LADWP Mitigation Project

N

0 2,000

Feet

Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.



Freeman Creek Project

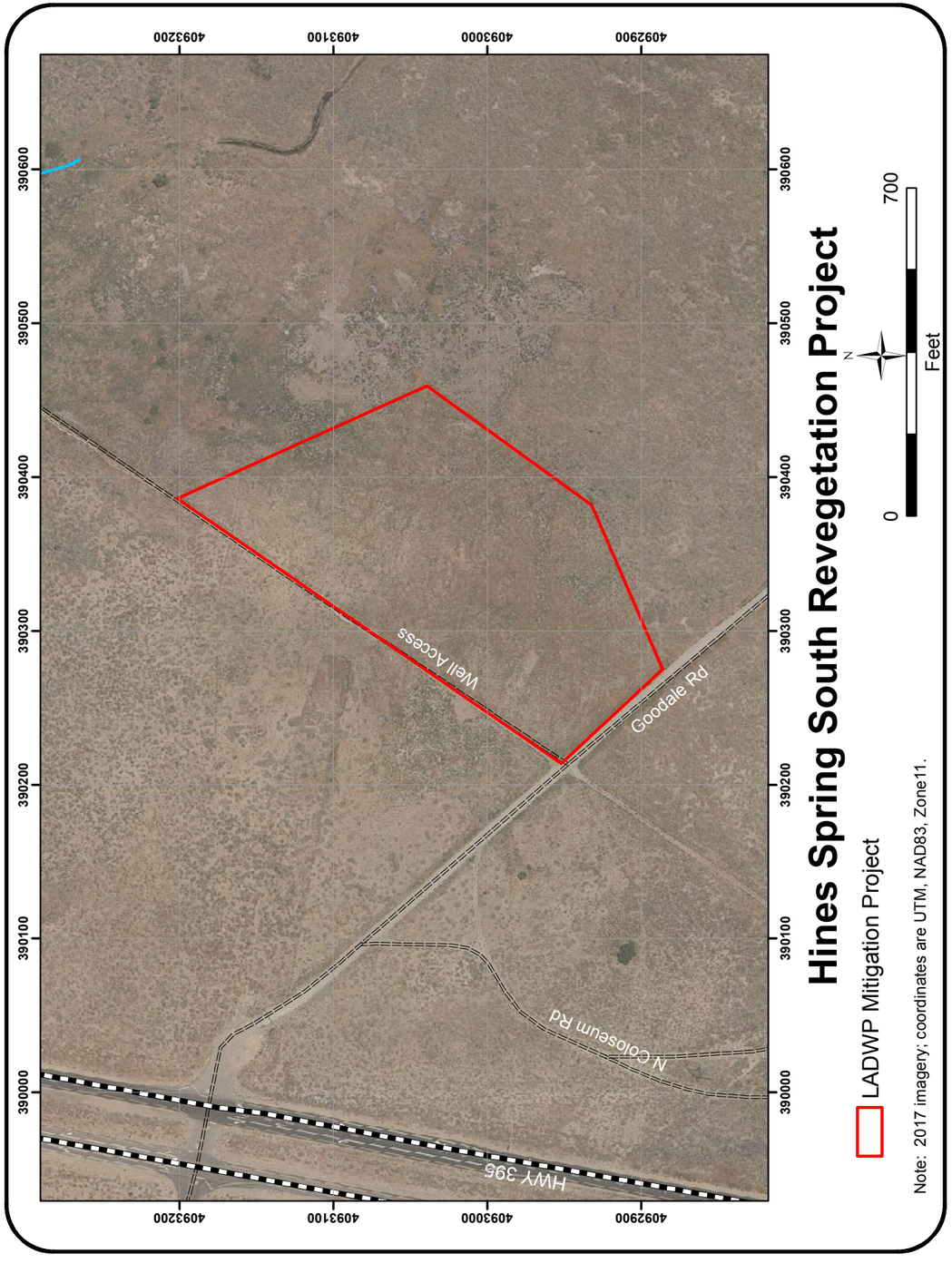
LADWP Mitigation Project

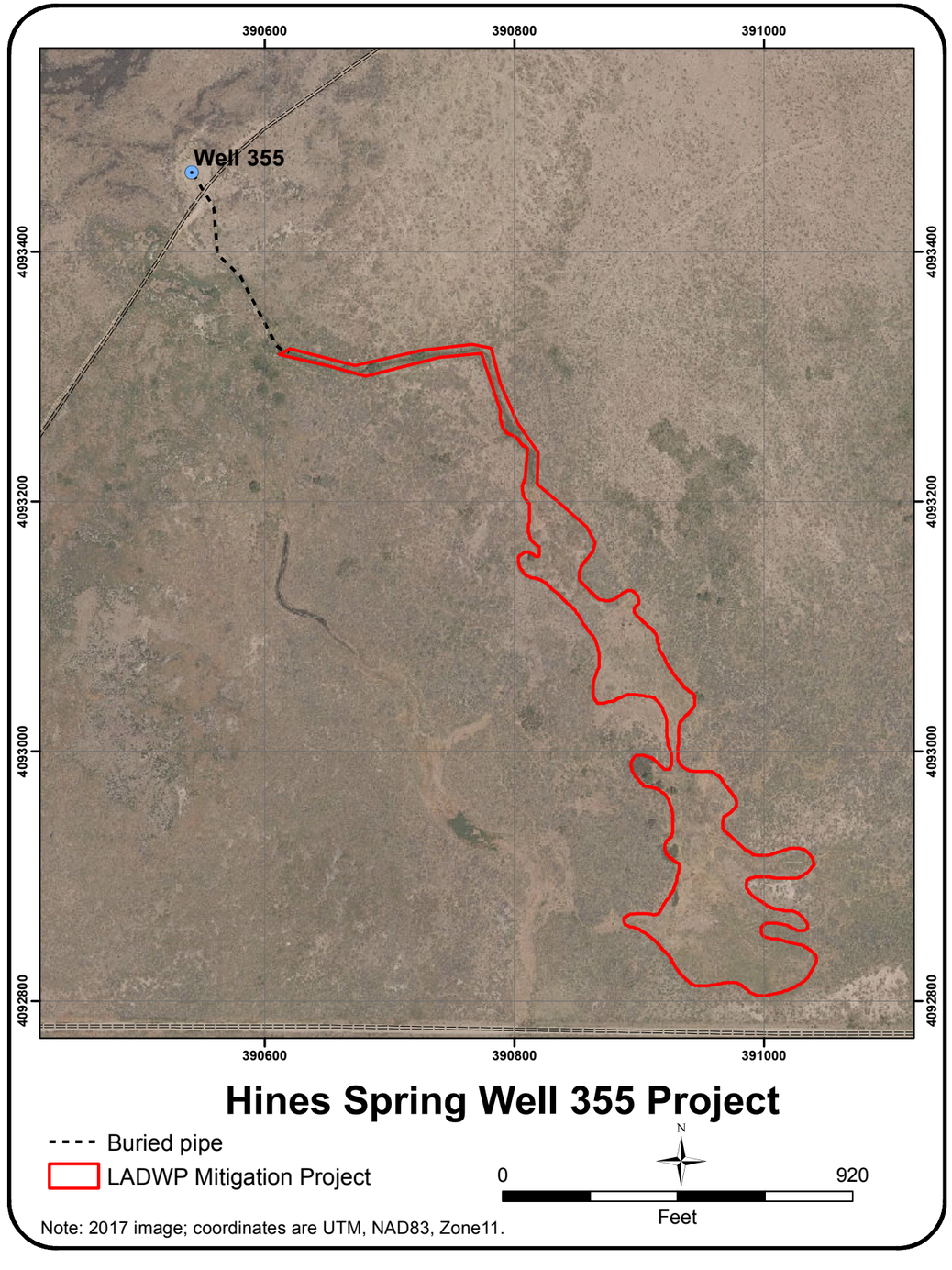
N

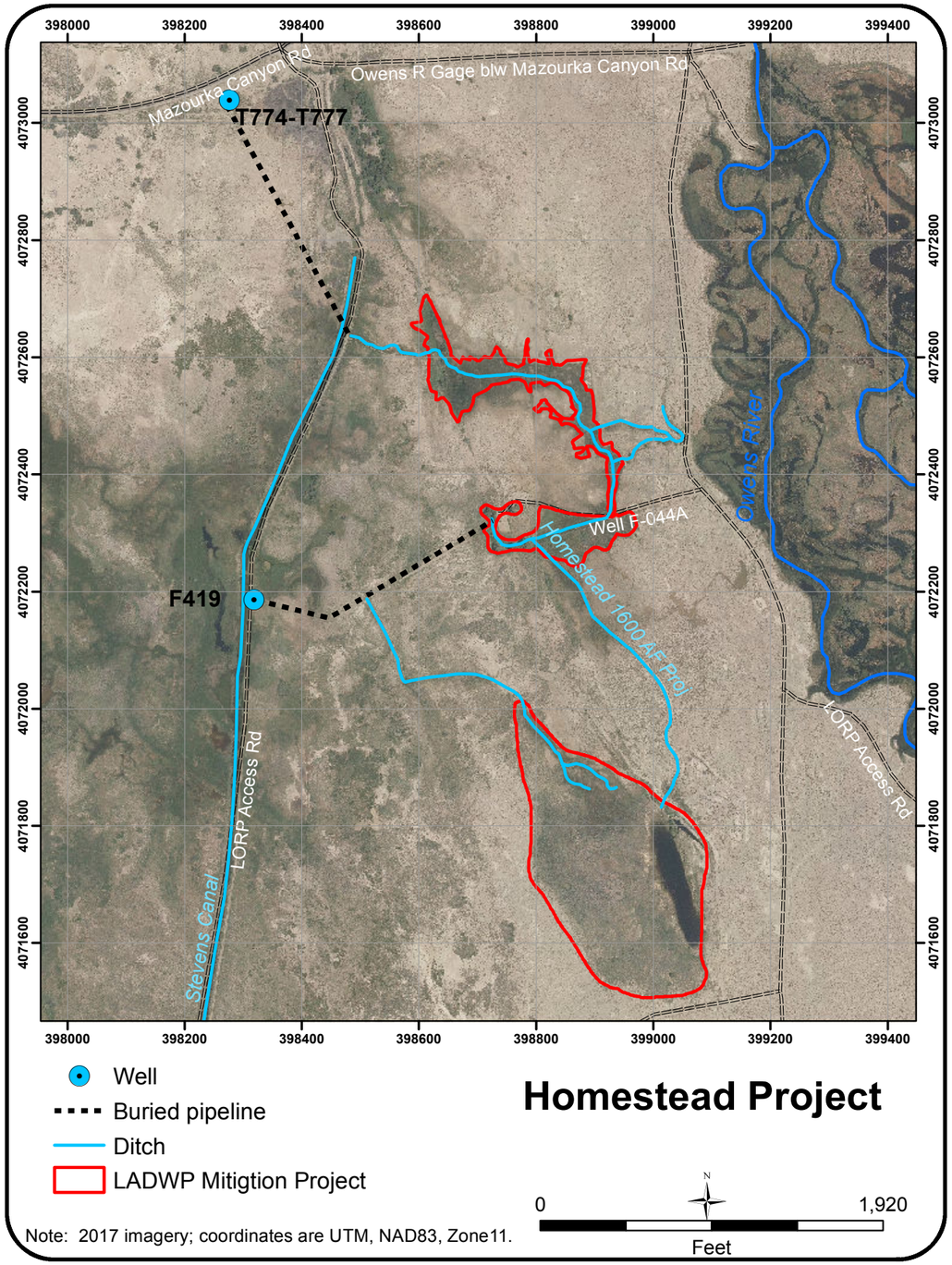
0 3,480

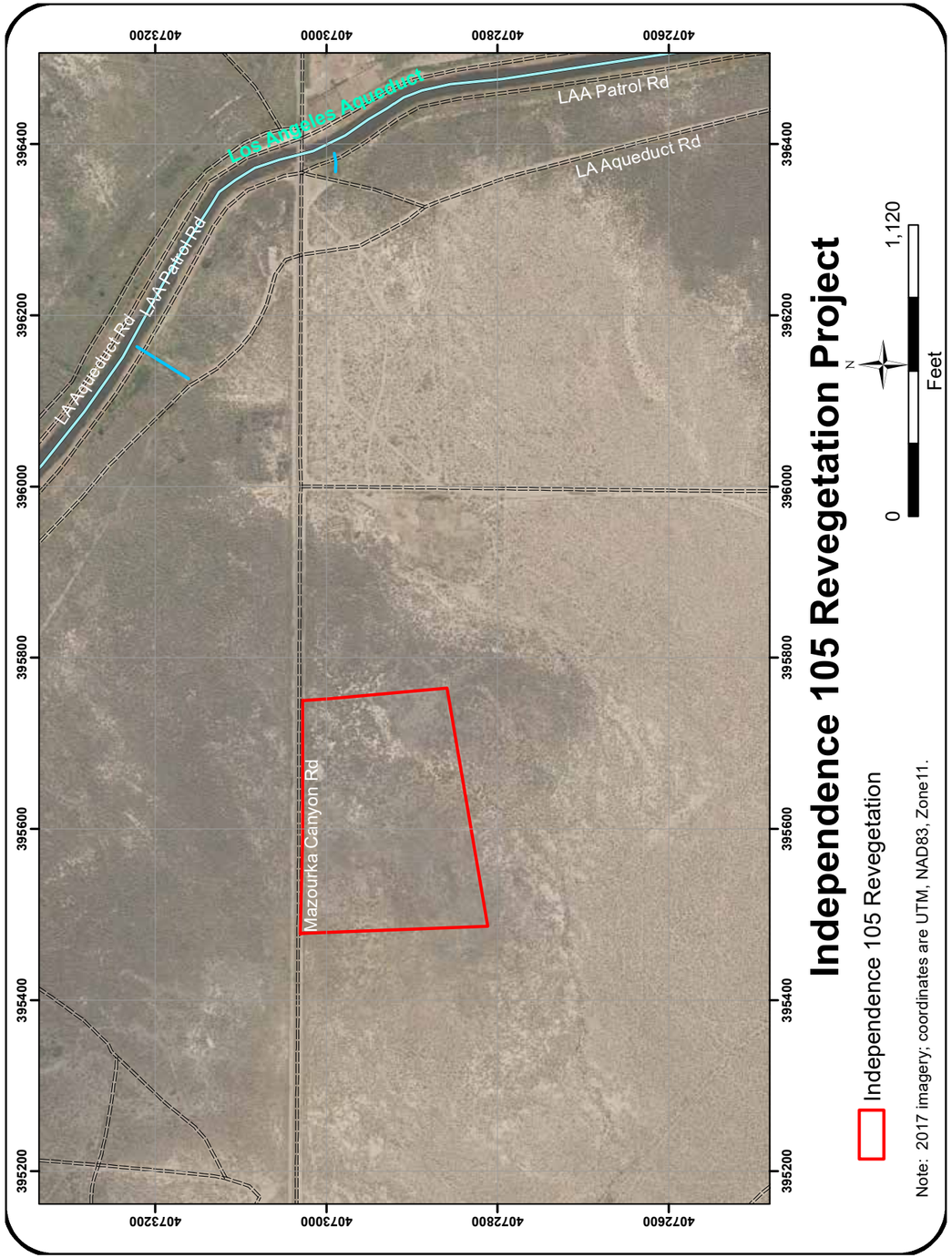
Feet

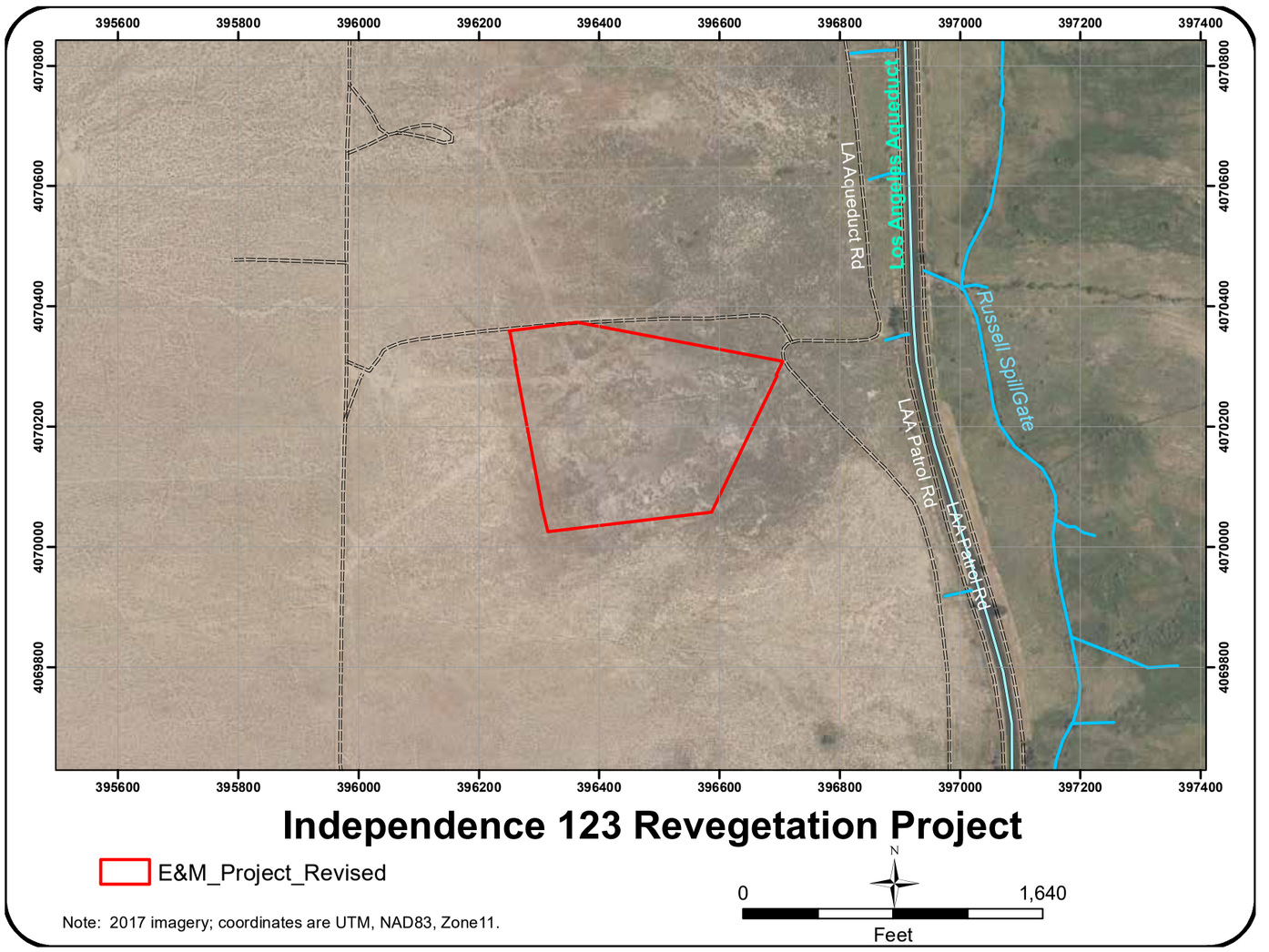
Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.


390600
390500
390400
390300
390200
390100
390000
4092900
4093000
4093100
4093200
Well Access
Goodale Rd
N Coliseum Rd
HWY 395
Hines Spring South Revegetation Project
LADWP Mitigation Project
0
700
Feet
N
Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.


390600
390800
391000
4093400
4093200
4093000
4092800
Well 355
Hines Spring Well 355 Project
Buried pipe
LADWP Mitigation Project
0
920
Feet
N
Note: 2017 image; coordinates are UTM, NAD83, Zone11.


398000
398200
398400
398600
398800
399000
399200
399400
4073000
4072800
4072600
4072400
4072200
4072000
4071800
4071600
Mazourka Canyon Rd
Owens R Gage blw Mazourka Canyon Rd
T774-T777
F419
Well F-044A
Homestead 1600 AF Pnd
Owens River
LORP Access Rd
LORP Access Rd
Stevens Canal
Well
Buried pipeline
Ditch
LADWP Mitigtion Project
Homestead Project
0
1,920
Feet
Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.


407200
407300
407280
407260
396400
396200
396000
395800
395600
395400
395200
Los Angeles Aqueduct
LAA Patrol Rd
LA Aqueduct Rd
LA Aqueduct Rd
LAA Patrol Rd
Mazourka Canyon Rd
Independence 105 Revegetation Project
Independence 105 Revegetation
0
1,120
Feet
Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.



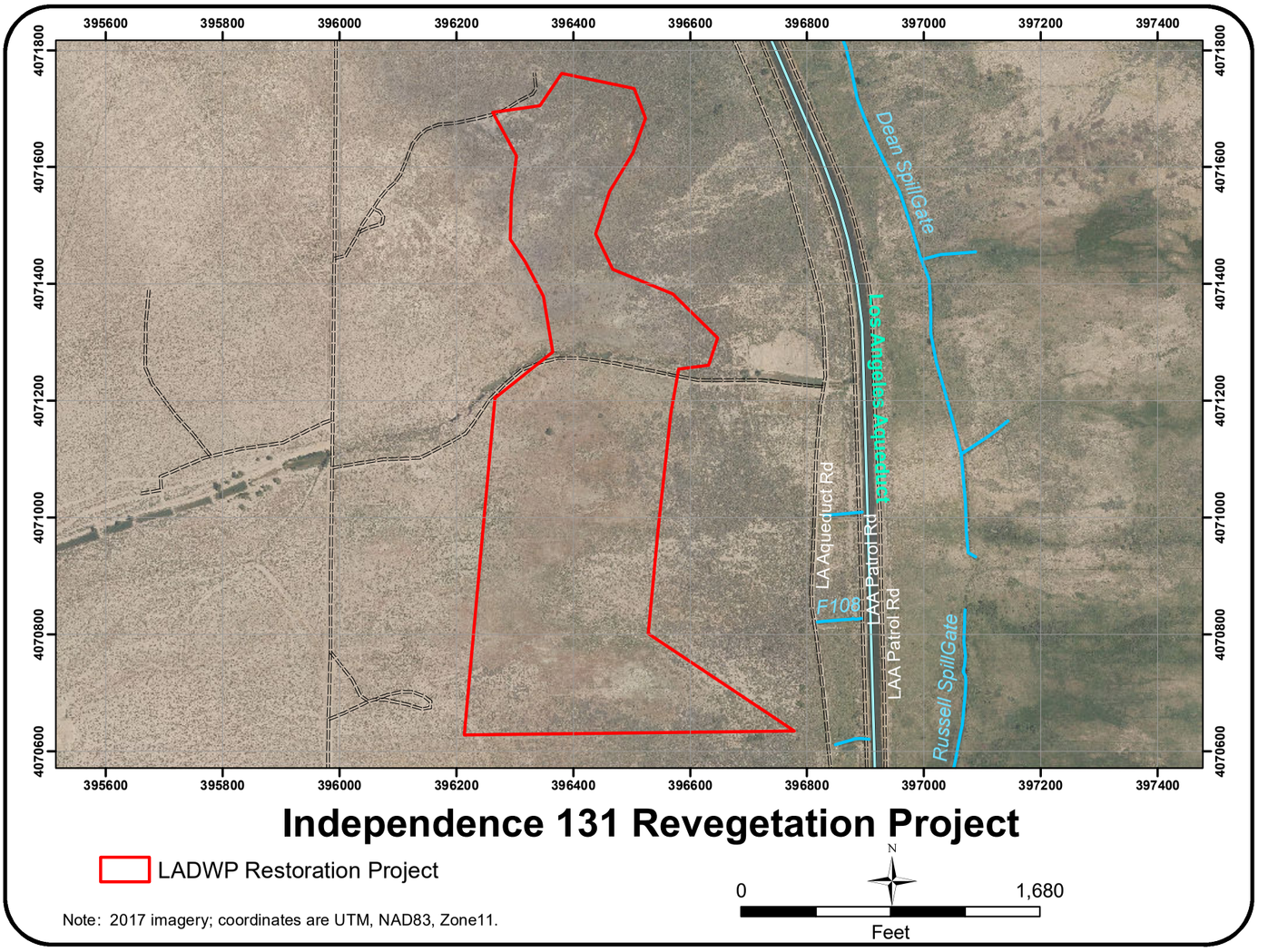
Independence 123 Revegetation Project

E&M_Project_Revised

Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.

0 1,640

Feet



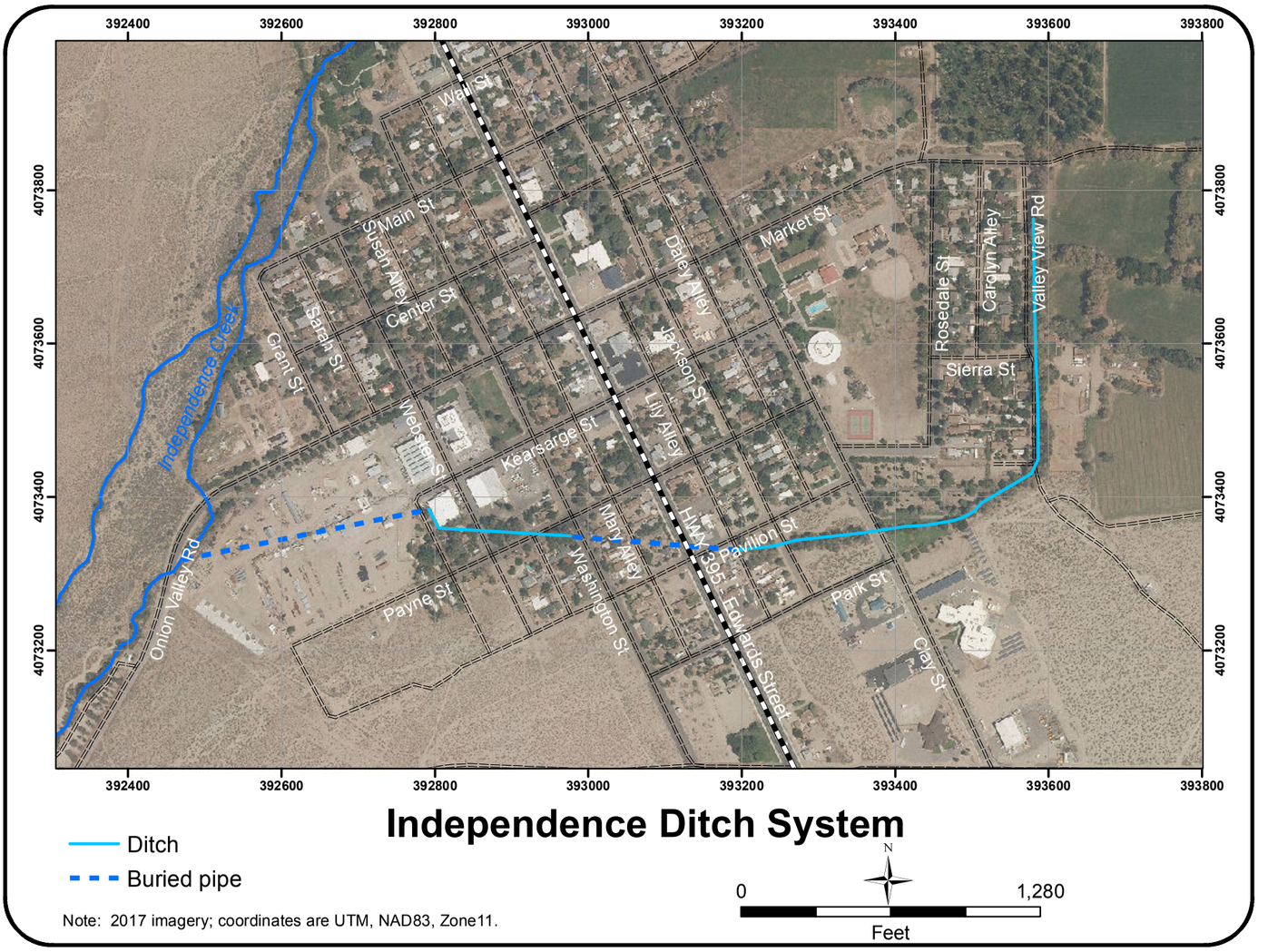
Independence 131 Revegetation Project

LADWP Restoration Project

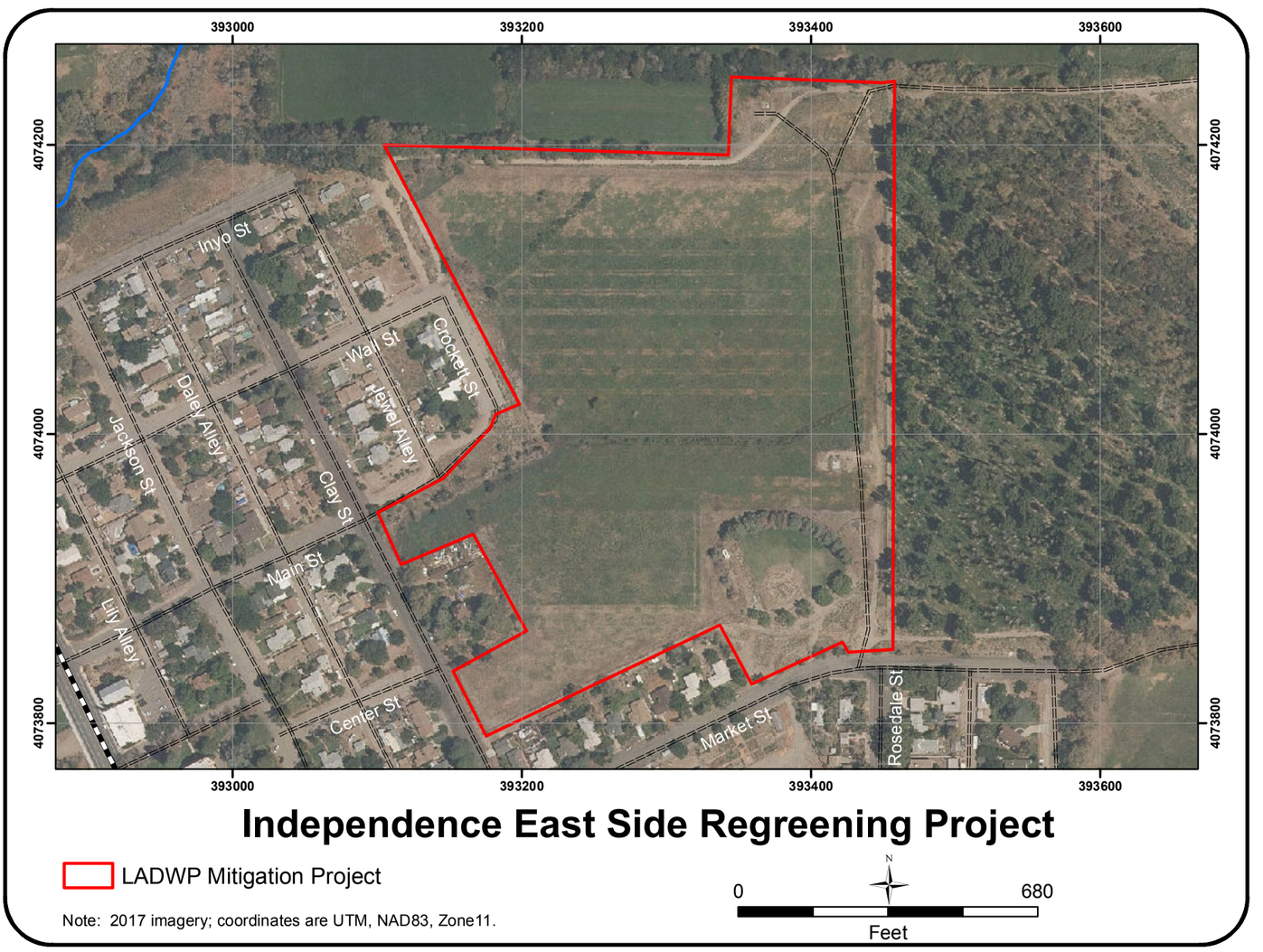
Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.

0 1,680

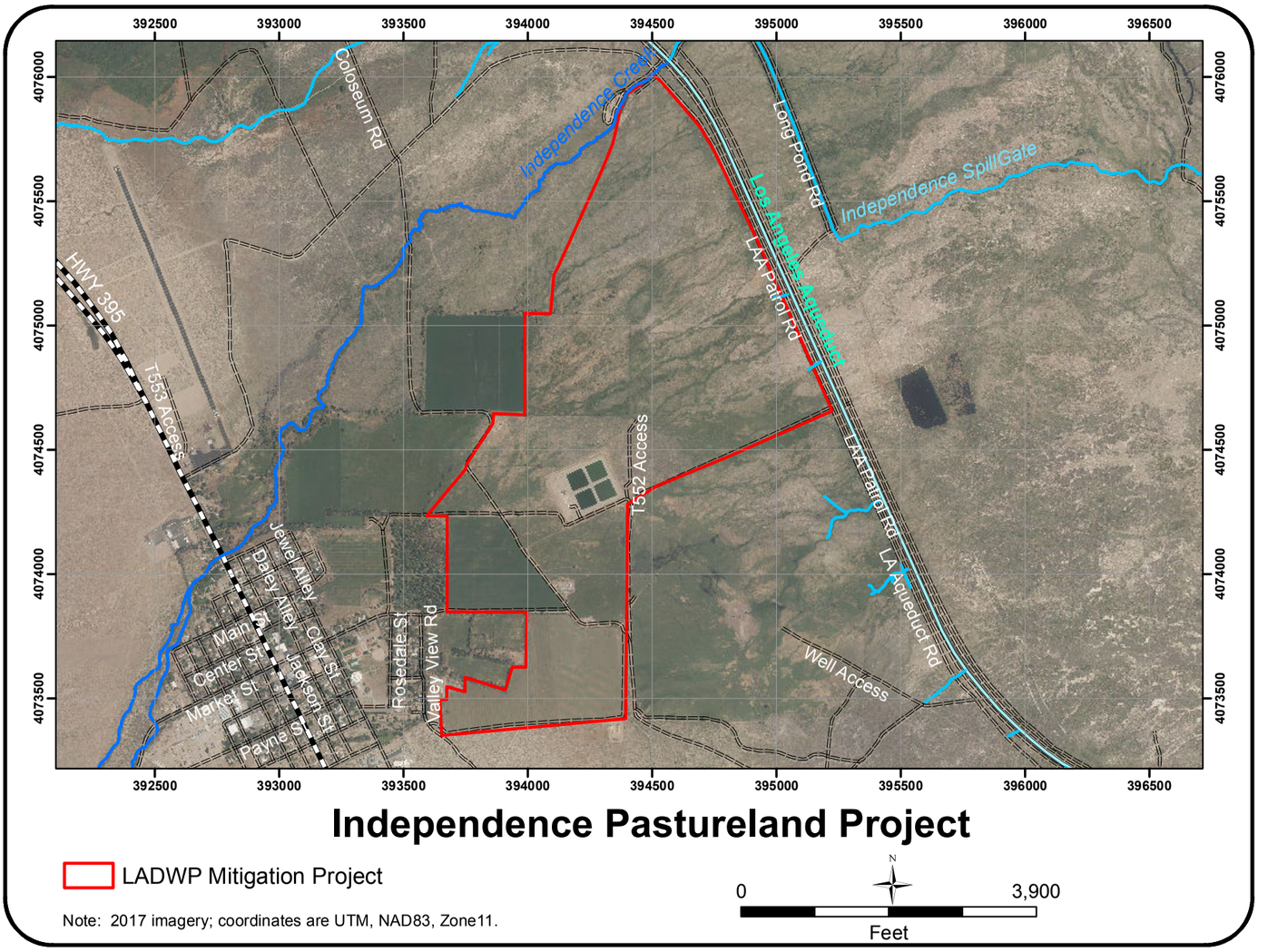
Feet



Independence Ditch System



Independence East Side Regreening Project



Independence Pastureland Project

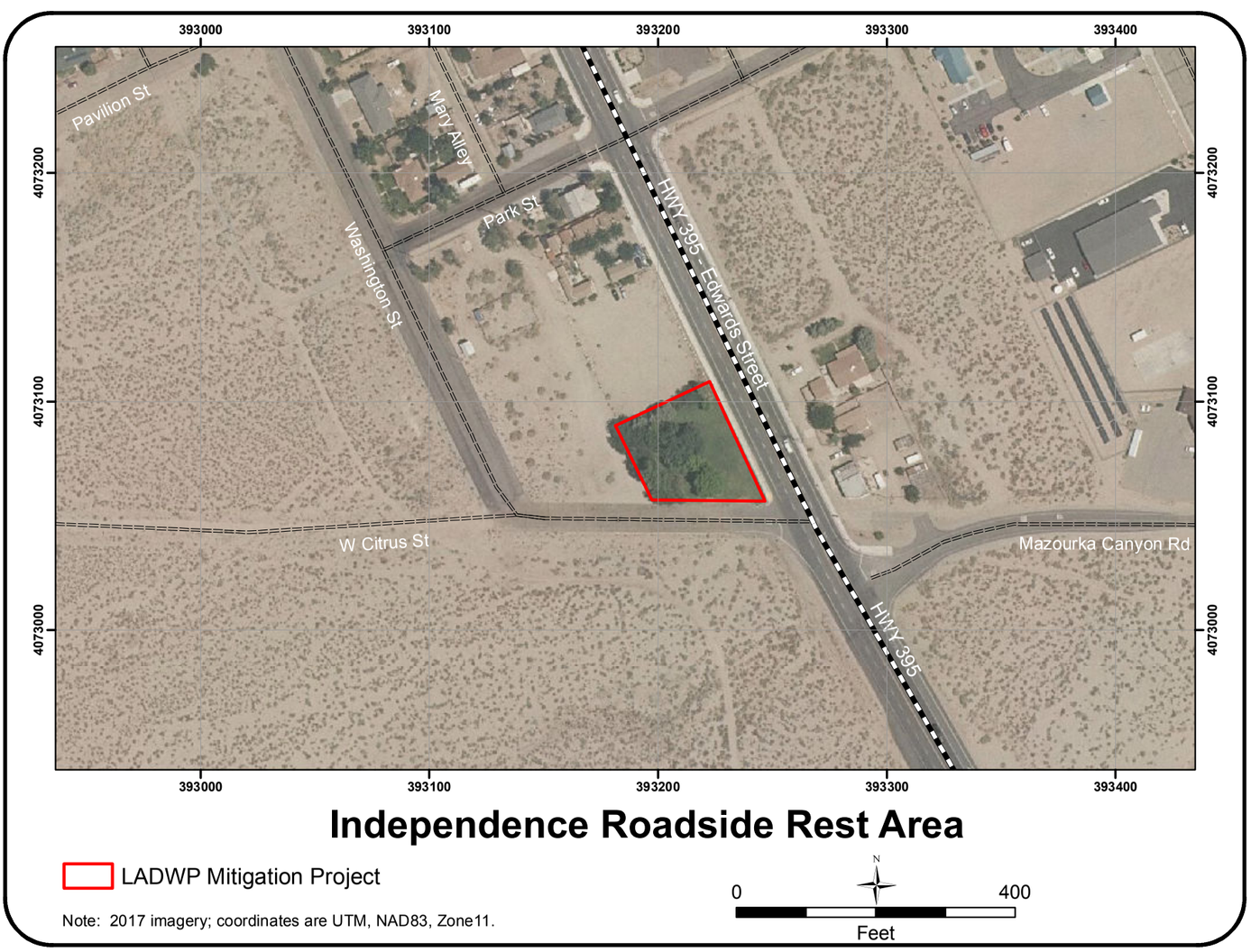
LADWP Mitigation Project

Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.

N

0 3,900

Feet



Independence Roadside Rest Area

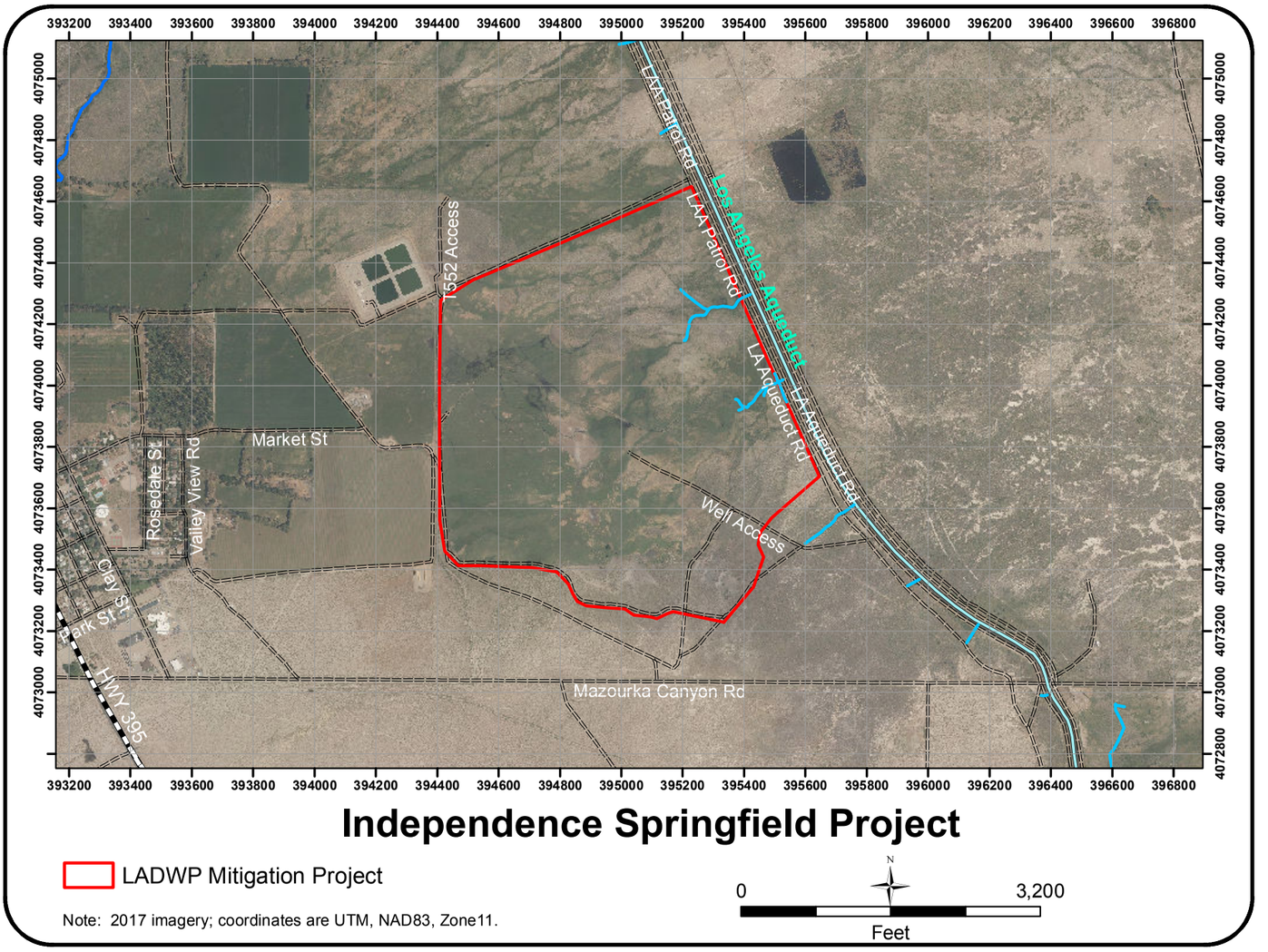
LADWP Mitigation Project

Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.

N

0 400

Feet



Independence Springfield Project

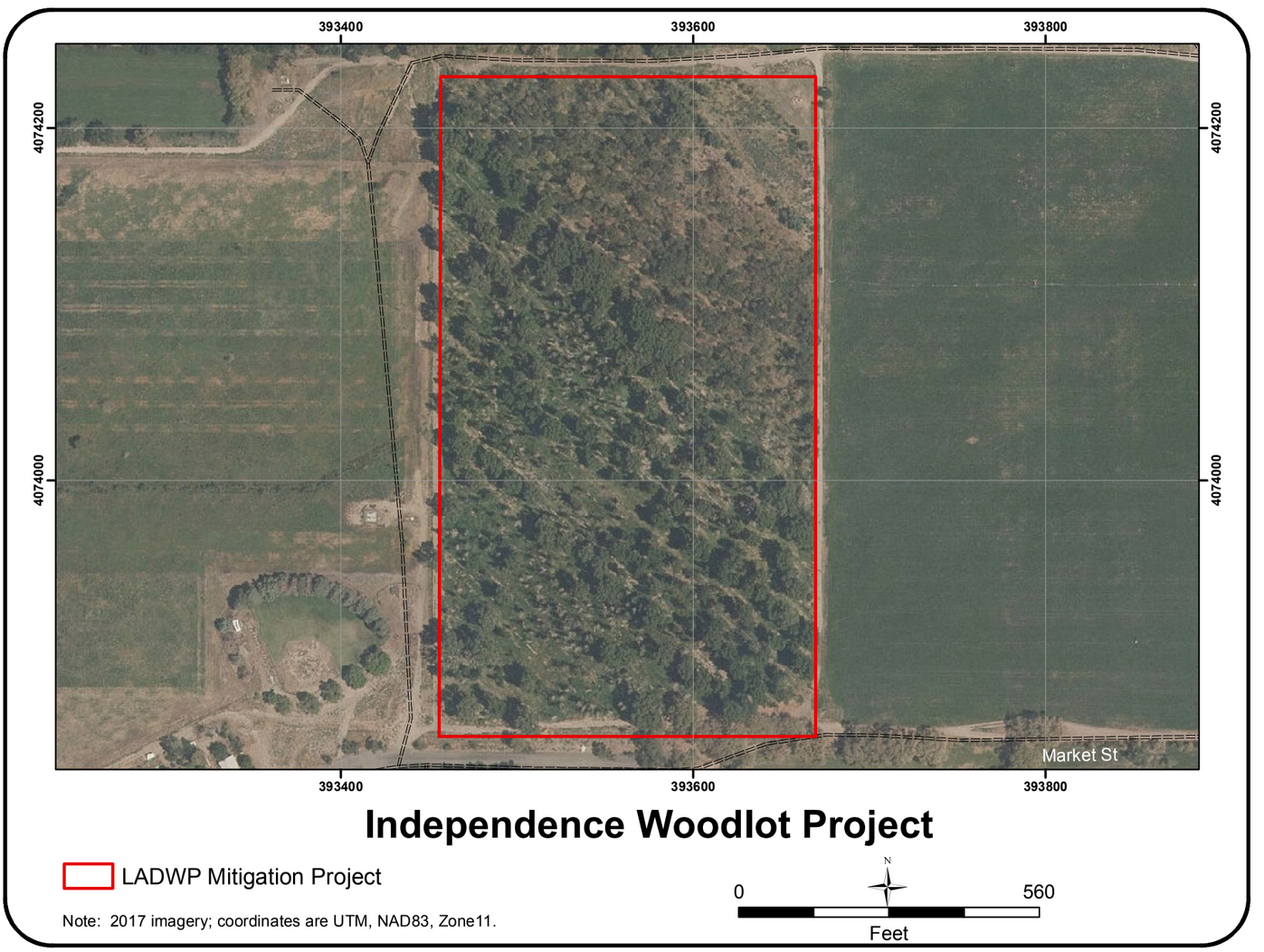
LADWP Mitigation Project

Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.

N

0 3,200

Feet



Independence Woodlot Project

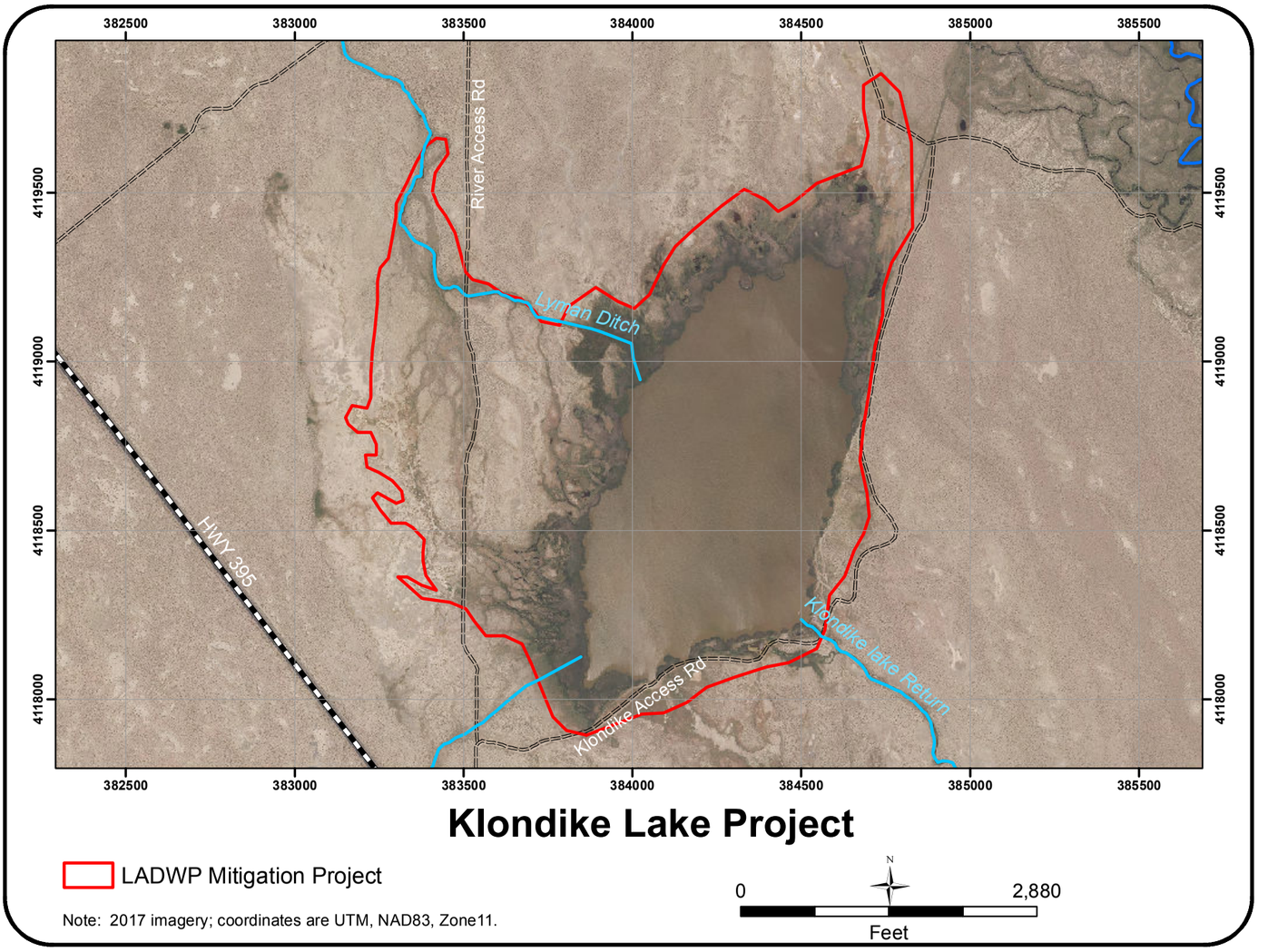
LADWP Mitigation Project

Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.

N

0 560

Feet



Klondike Lake Project

LADWP Mitigation Project

Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.

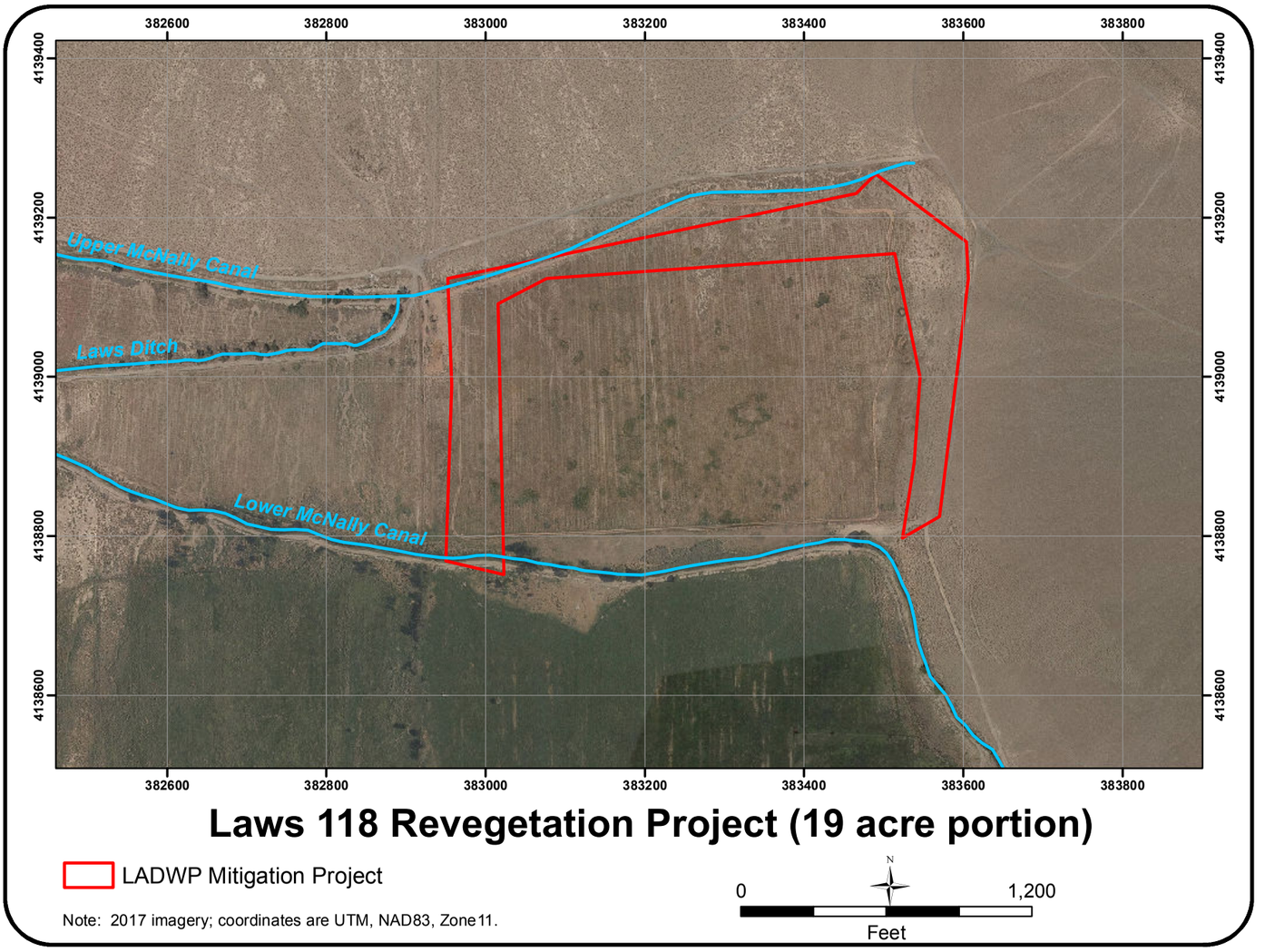
0 2,880
Feet

Klondike South Shore Habitat Area Project

LADWP Mitigation Project

Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.

0 1,400
Feet

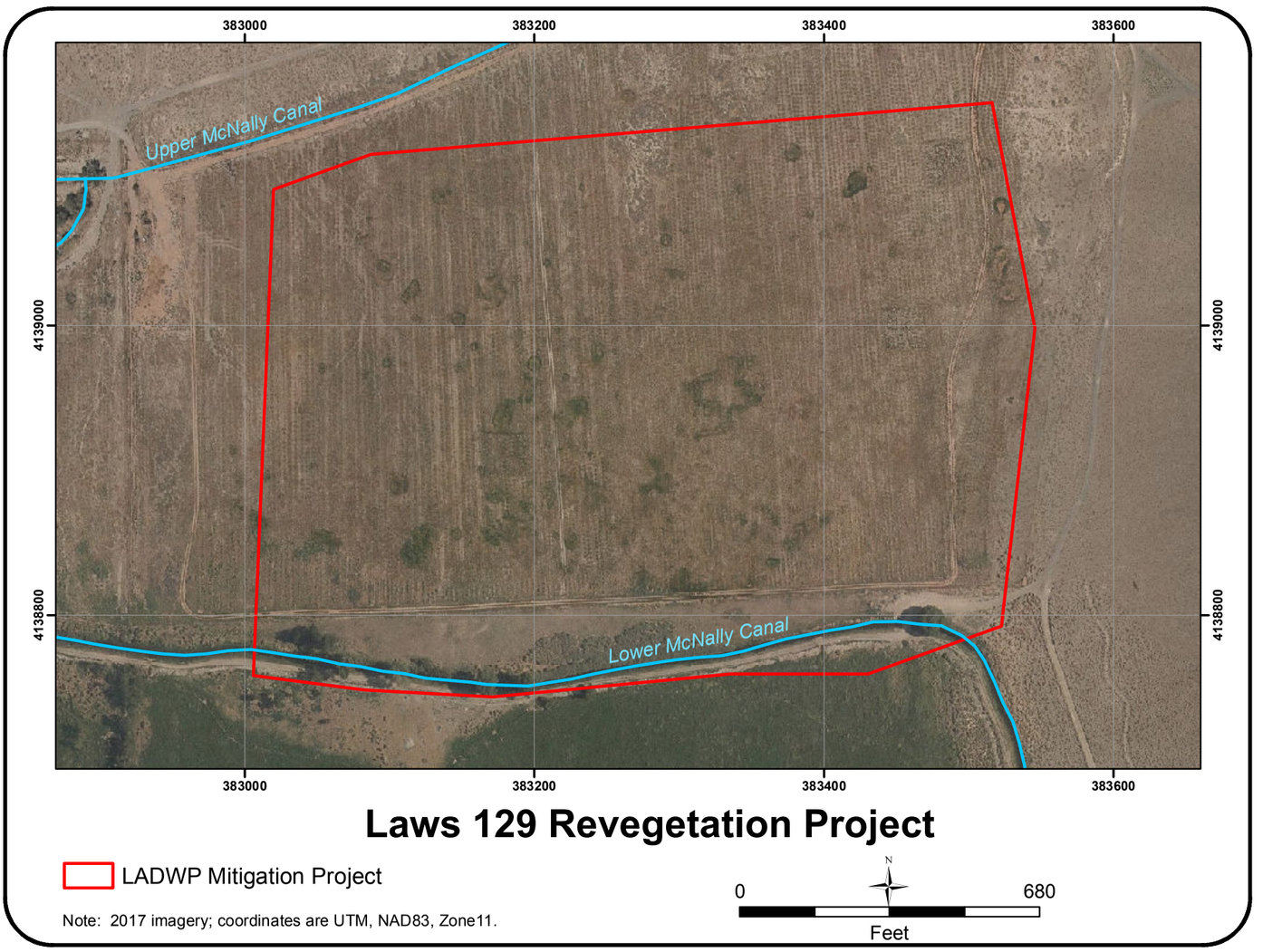


Laws 118 Revegetation Project (19 acre portion)

LADWP Mitigation Project

Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.

0 1,200
Feet

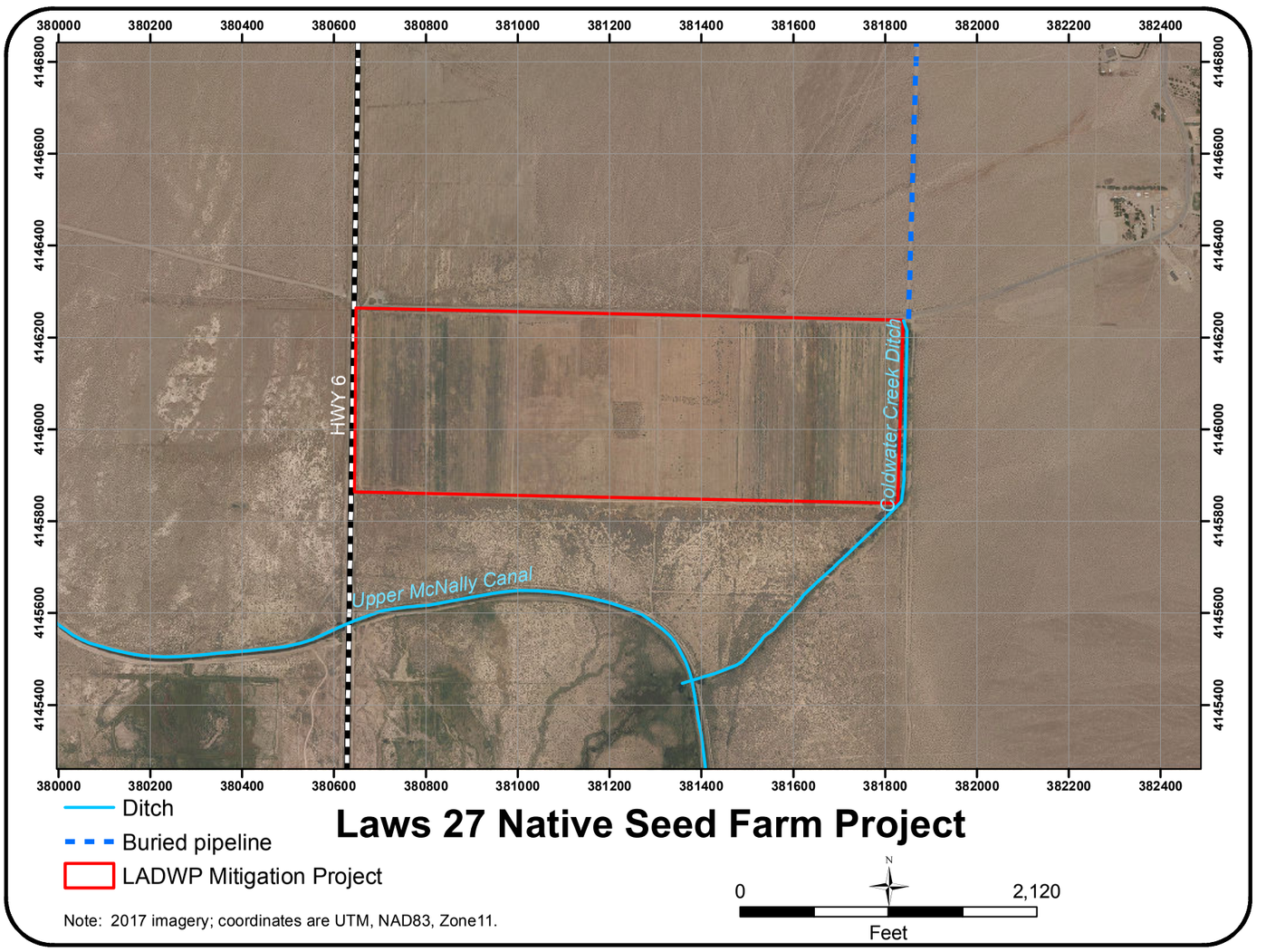


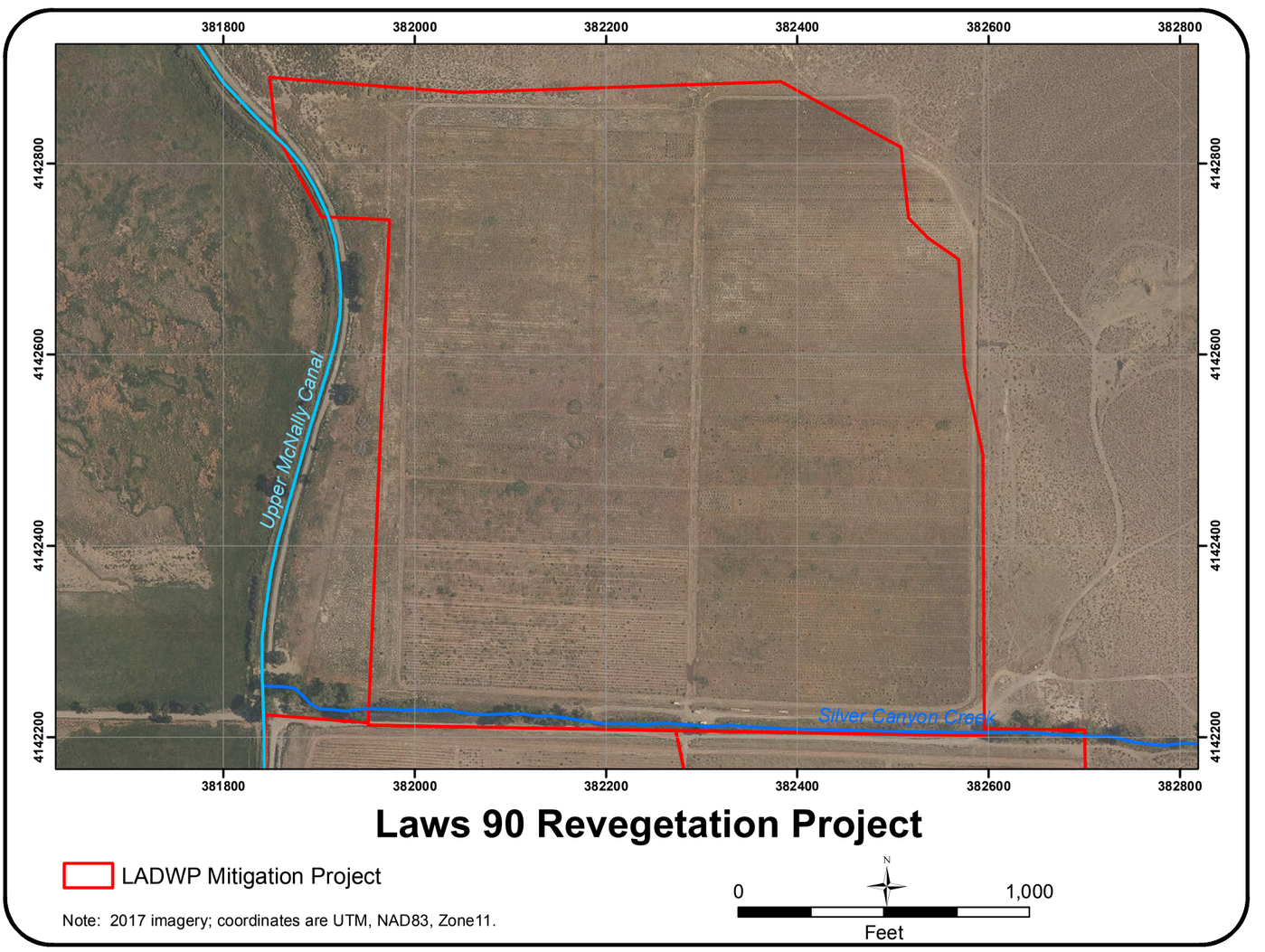
Laws 129 Revegetation Project

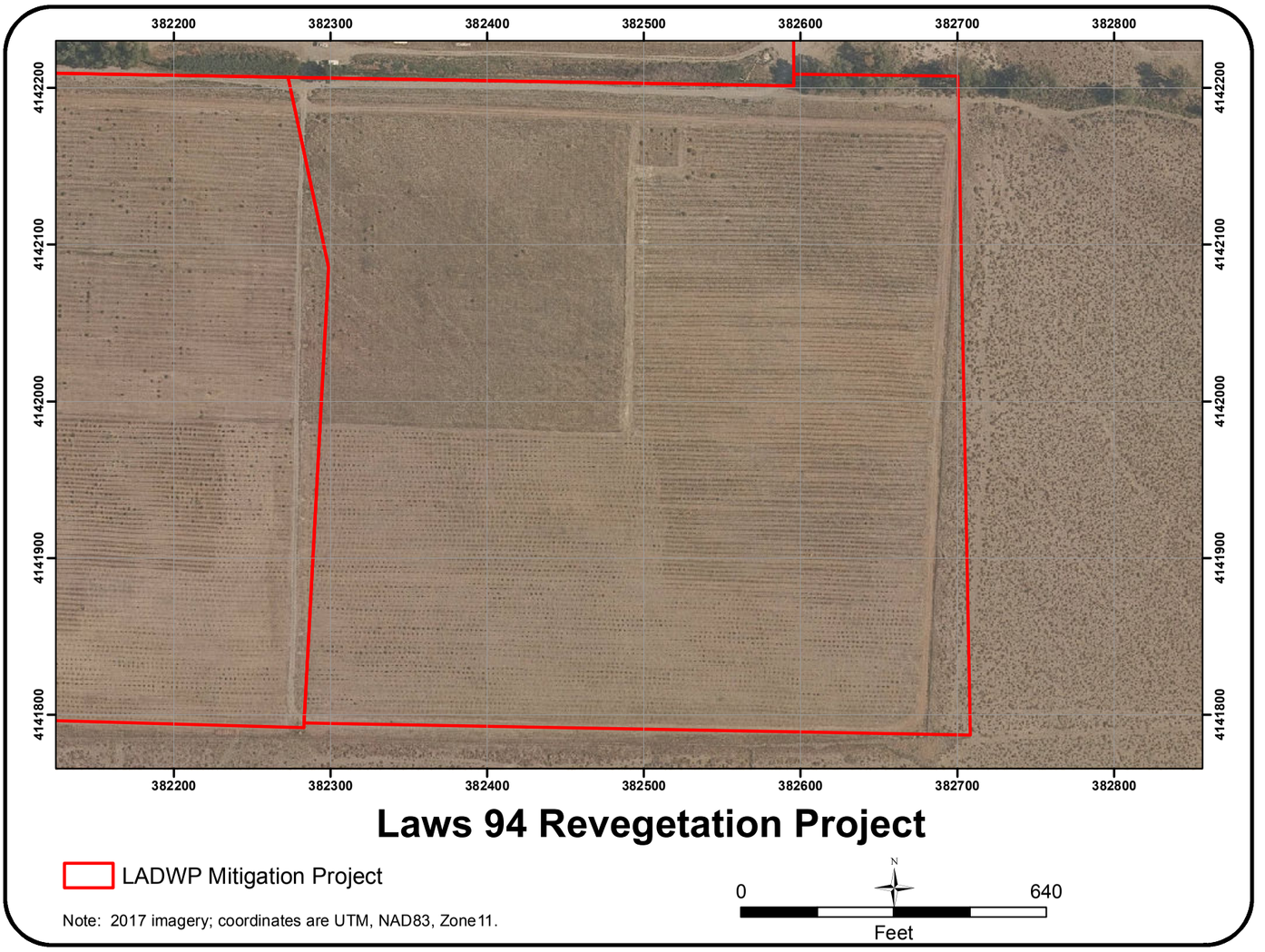
LADWP Mitigation Project

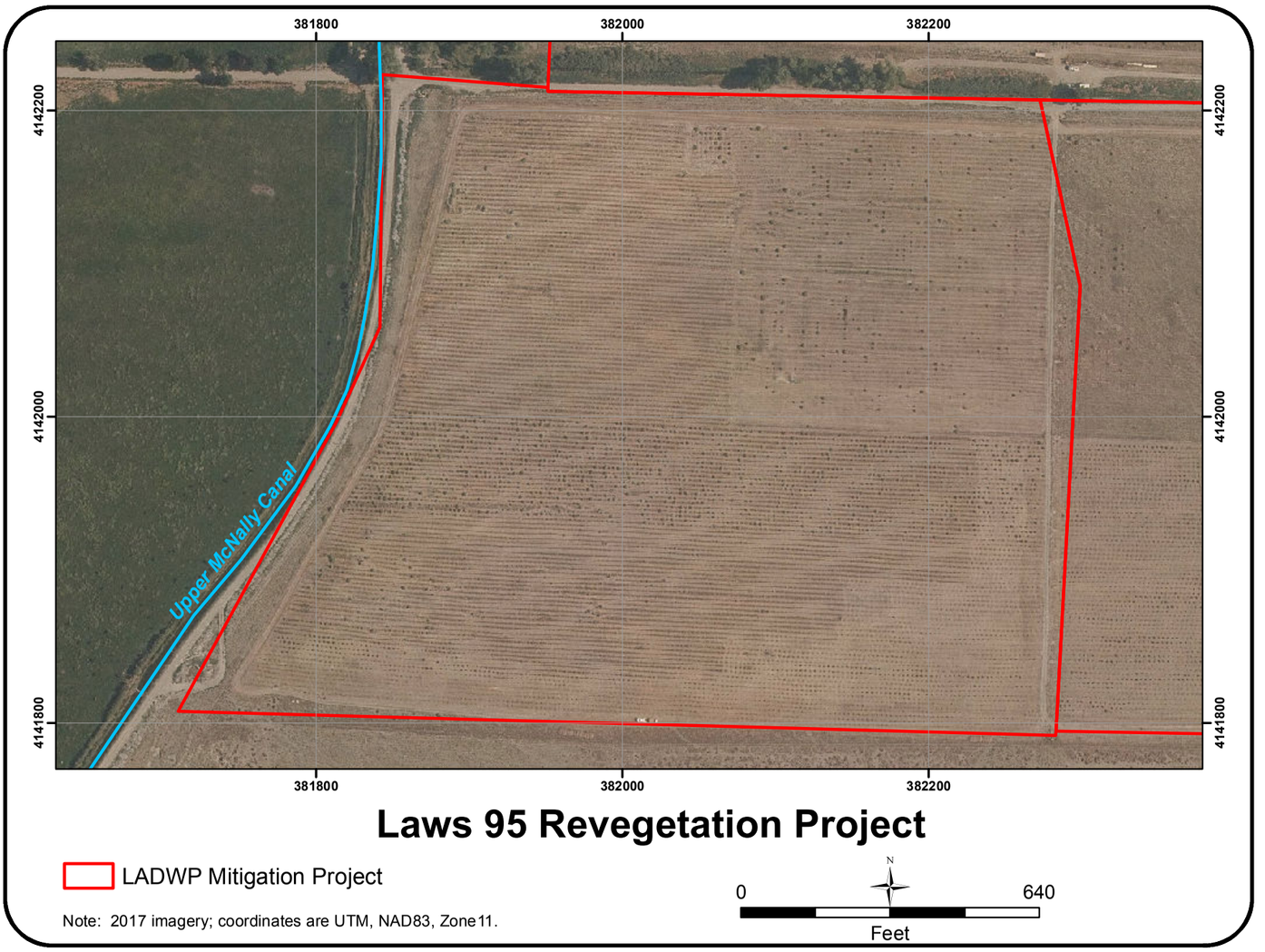
Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.

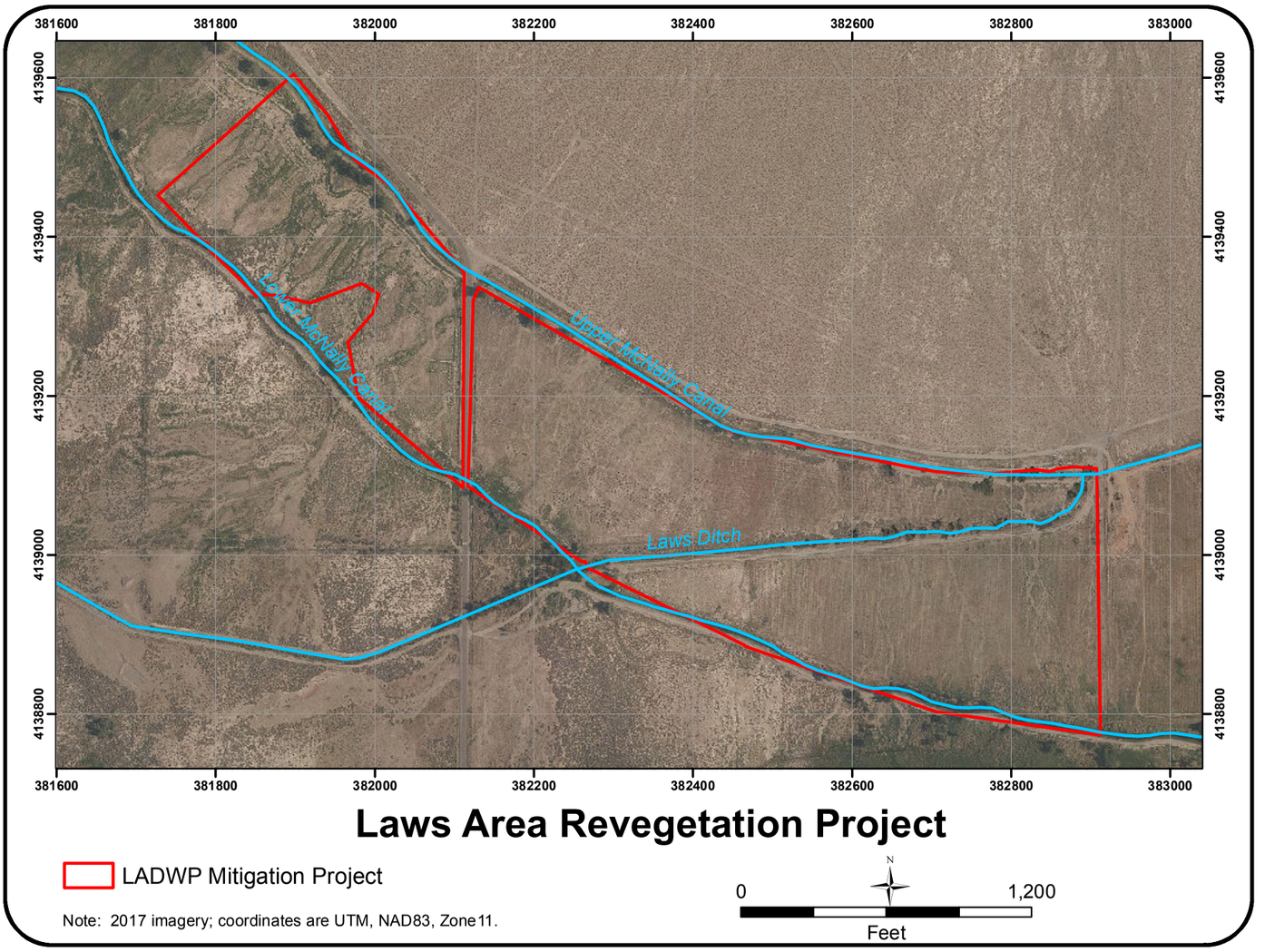
0 680
Feet


380000
380200
380400
380600
380800
381000
381200
381400
381600
381800
382000
382200
382400
4146800
4146600
4146400
4146200
4146000
4145800
4145600
4145400
HWY 6
Coldwater Creek Ditch
Upper McNally Canal
Ditch
Buried pipeline
LADWP Mitigation Project
Laws 27 Native Seed Farm Project
N
0
2,120
Feet
Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.


381800
382000
382200
382400
382600
382800
4142800
4142600
4142400
4142200
Upper McNally Canal
Silver Canyon Creek
LADWP Mitigation Project
Laws 90 Revegetation Project
N
0
1,000
Feet
Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.


382200
382300
382400
382500
382600
382700
382800
4142200
4142100
4142000
4141900
4141800
Laws 94 Revegetation Project
LADWP Mitigation Project
0
640
N
Feet
Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.


381800
382000
382200
4142200
4142000
4141800
Upper McNally Canal
Laws 95 Revegetation Project
LADWP Mitigation Project
0
640
N
Feet
Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.



Laws Area Revegetation Project

LADWP Mitigation Project

0 1,200 Feet

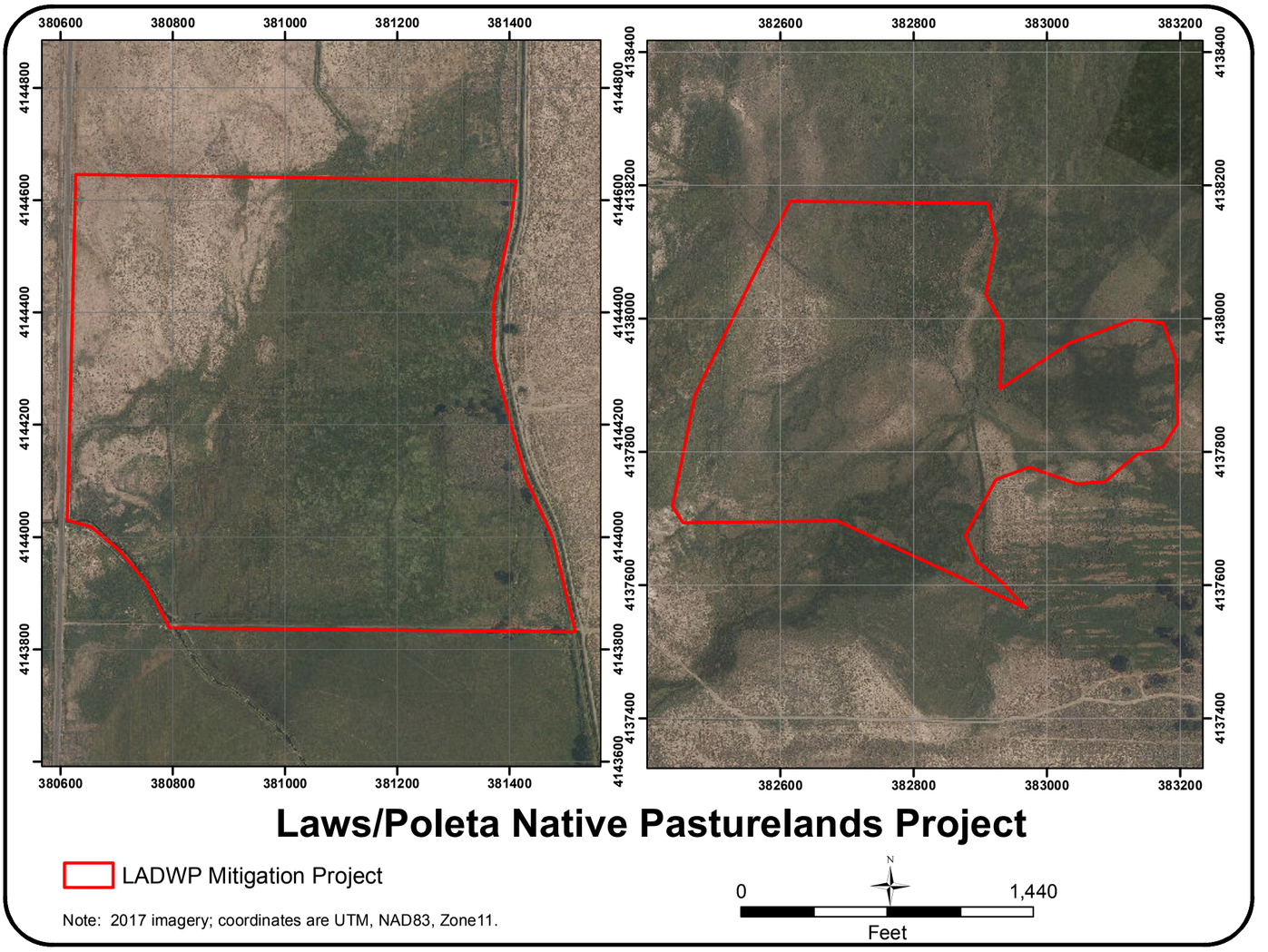
Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.

Laws Historical Museum Pasturelands Project

LADWP Mitigation Project

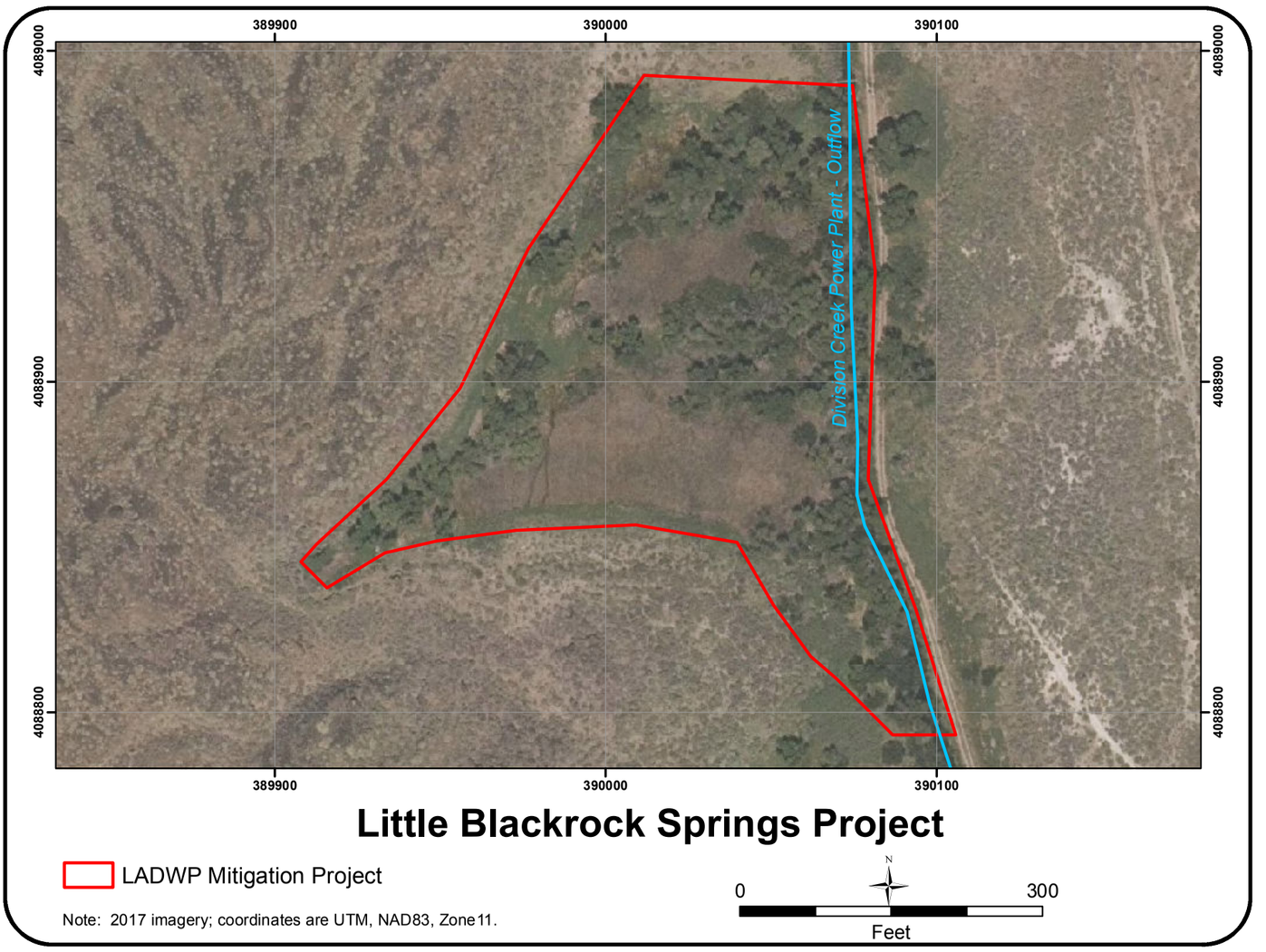
0 560 Feet

Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.



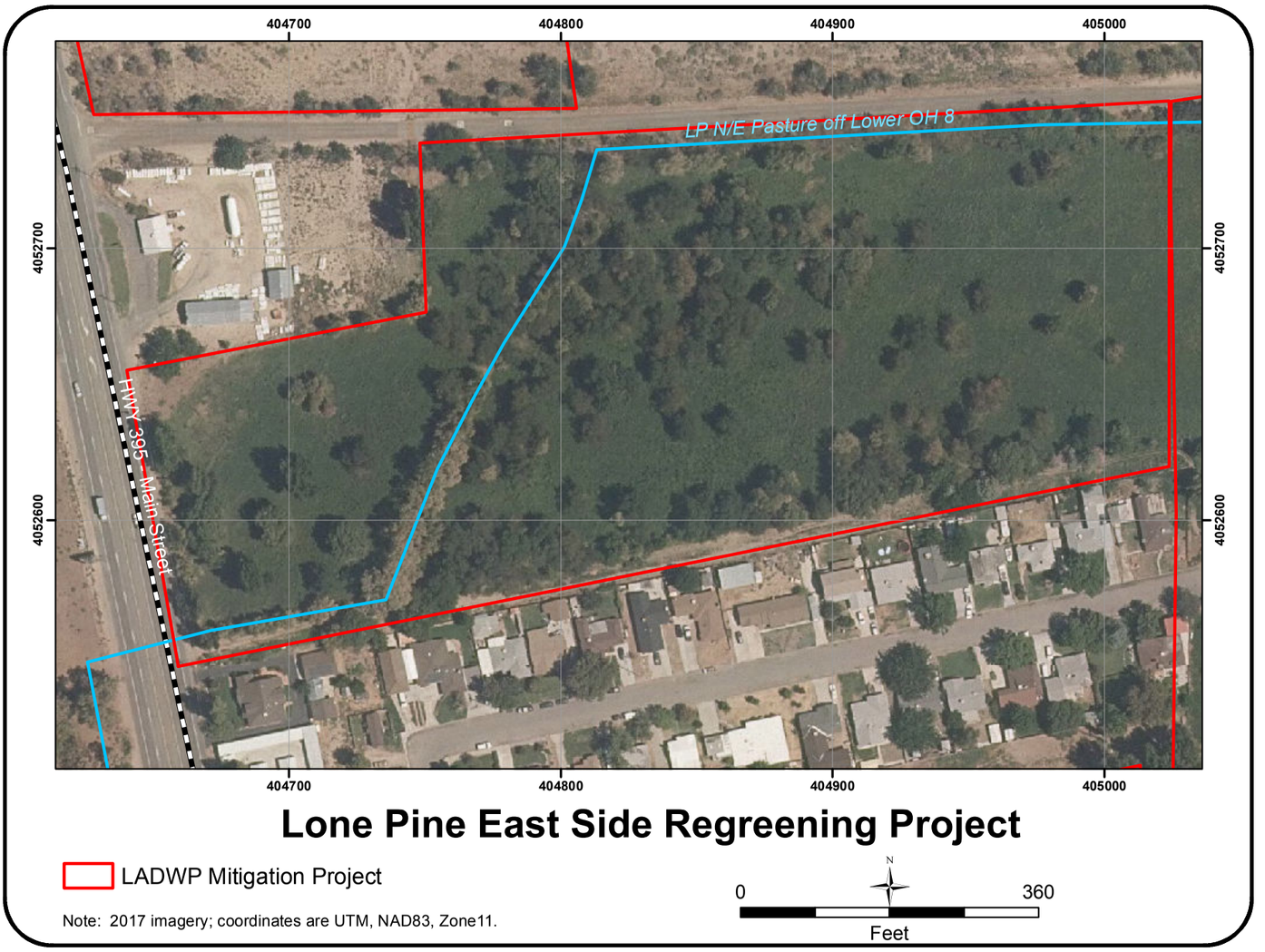
Laws/Poleta Native Pasturelands Project

Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.



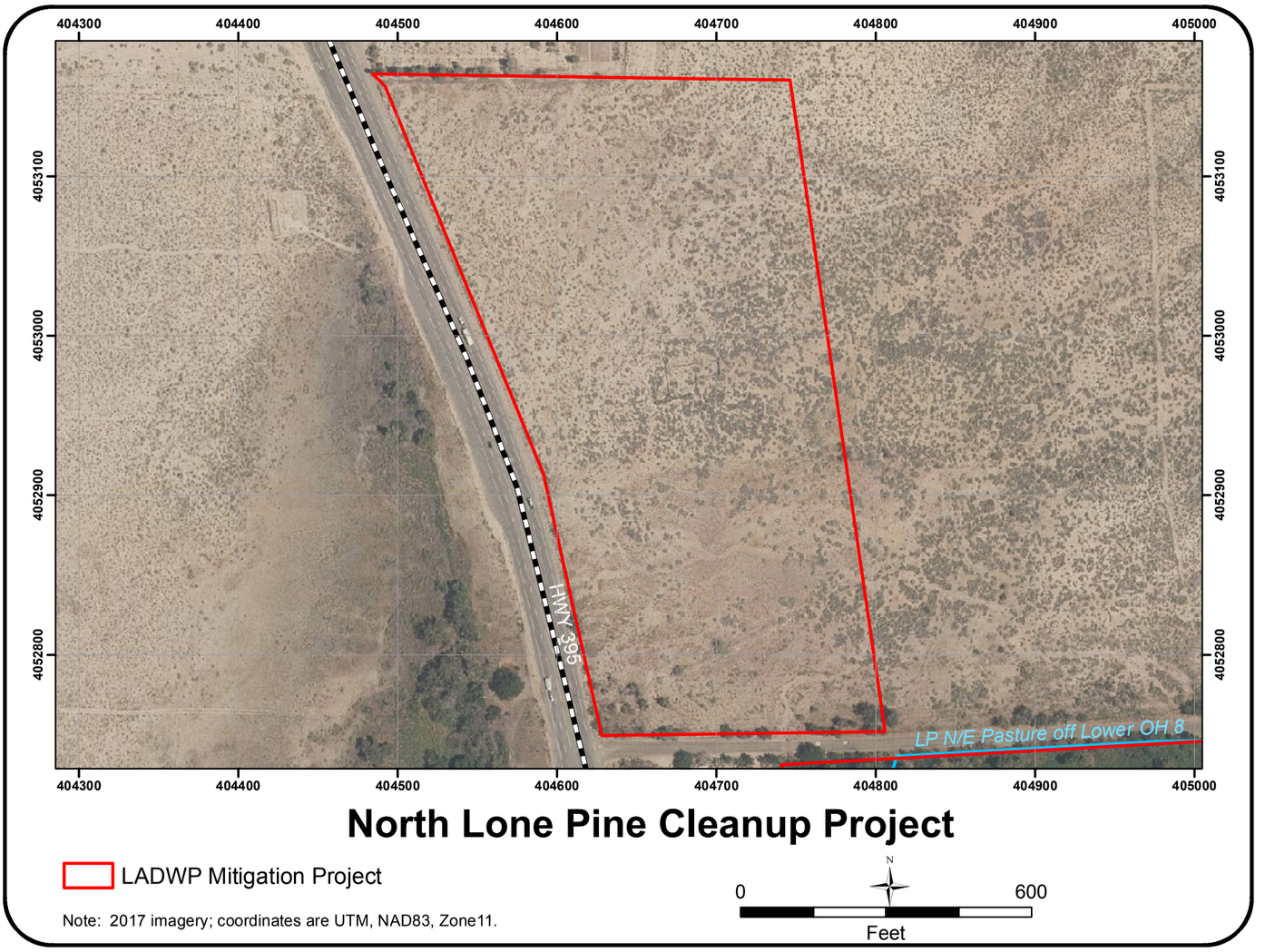
Little Blackrock Springs Project

Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.



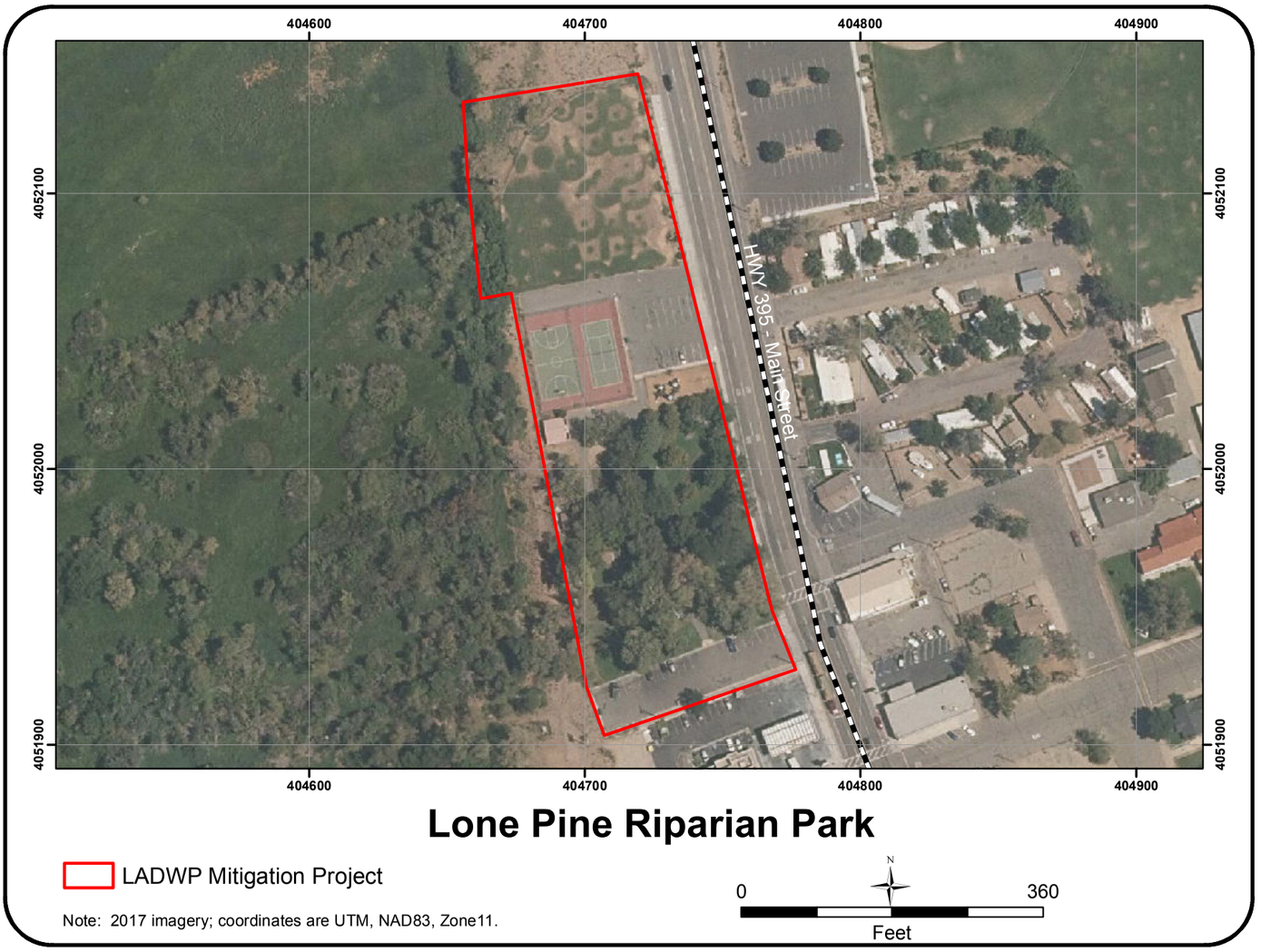
Lone Pine East Side Regreening Project

Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.



North Lone Pine Cleanup Project

Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.



Lone Pine Riparian Park

LADWP Mitigation Project

Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.

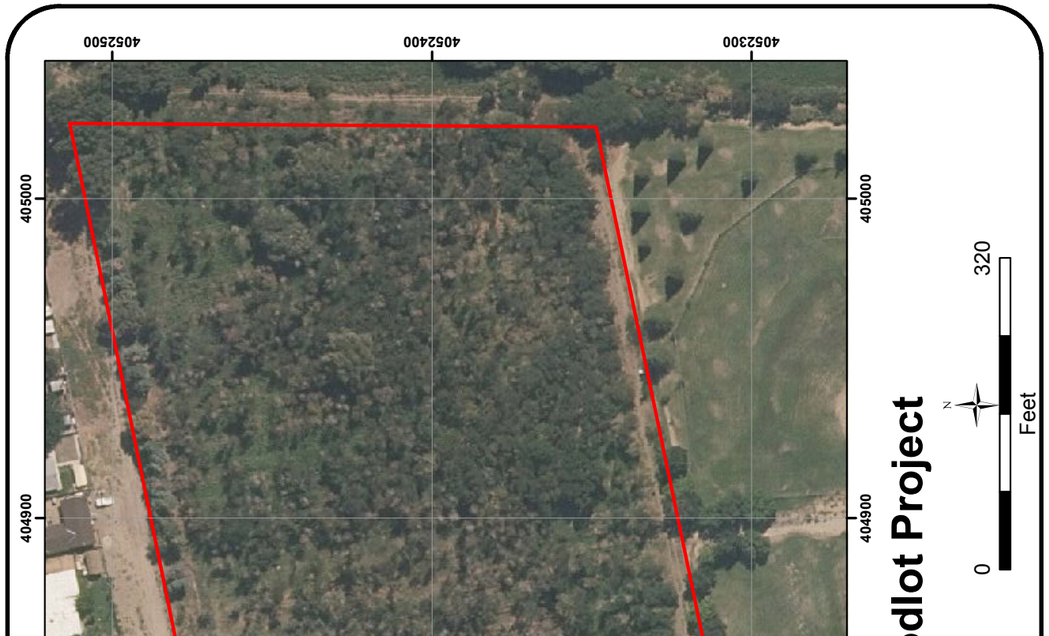
0 360
Feet

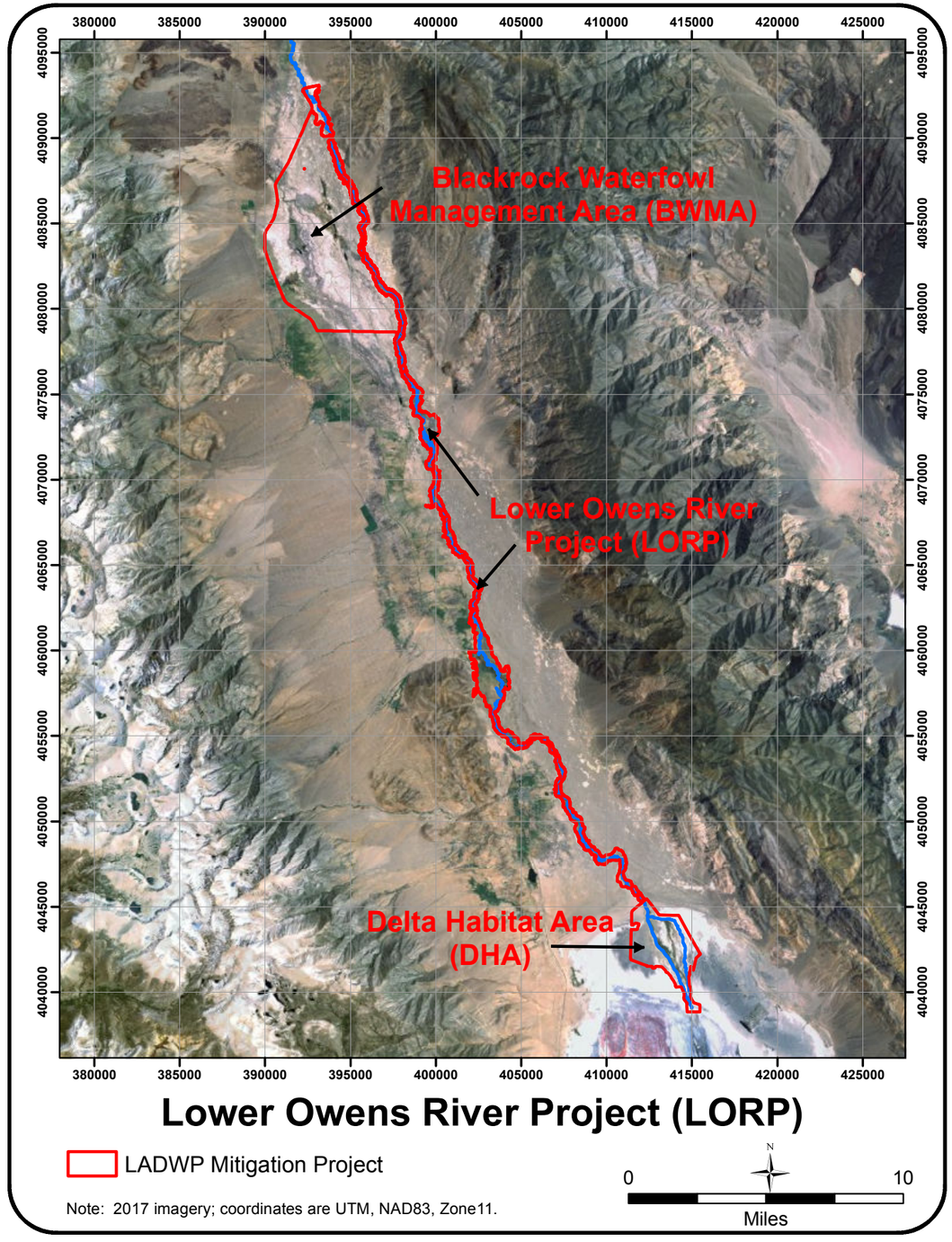
Lone Pine West Side Regreening Project

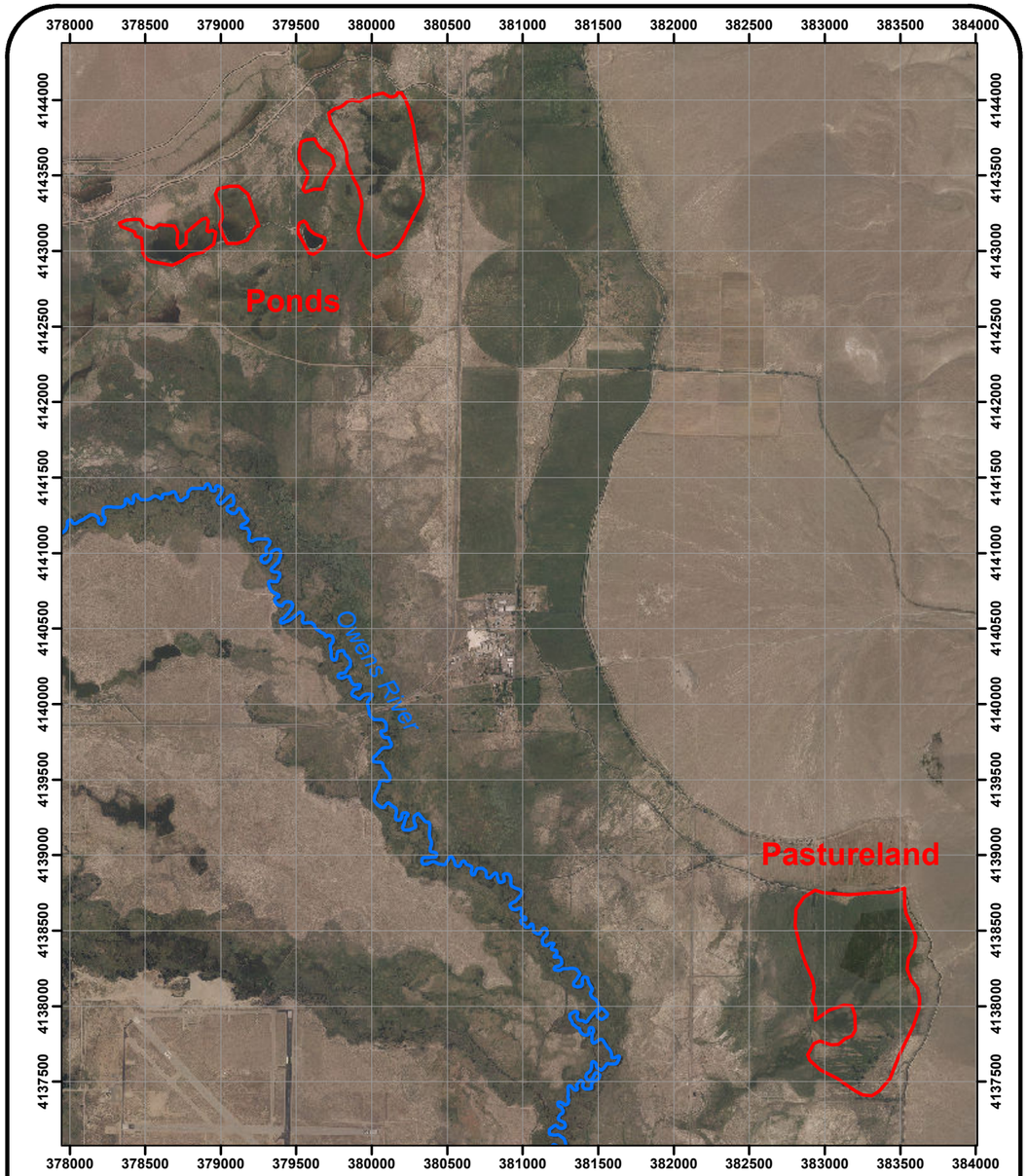
LADWP Mitigation Project

Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.

0 320
Feet


405300
405400
405500
405000
404900
404800
404700
HWY 395 - Main Street
Lone Pine Woodlot Project
LADWP Mitigation Project
Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.
0
320
Feet
N


380000
385000
390000
395000
400000
405000
410000
415000
420000
425000
4095000
4090000
4085000
4080000
4075000
4070000
4065000
4060000
4055000
4050000
4045000
4040000
Blackrock Waterfowl Management Area (BWMA)
Lower Owens River Project (LORP)
Delta Habitat Area (DHA)
Lower Owens River Project (LORP)
LADWP Mitigation Project
Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.
0
10
Miles
N



McNally Ponds and Native Pasturelands Project

LADWP Mitigation Project

Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.

N

0 1.2

Miles

Millpond Recreation Area Project

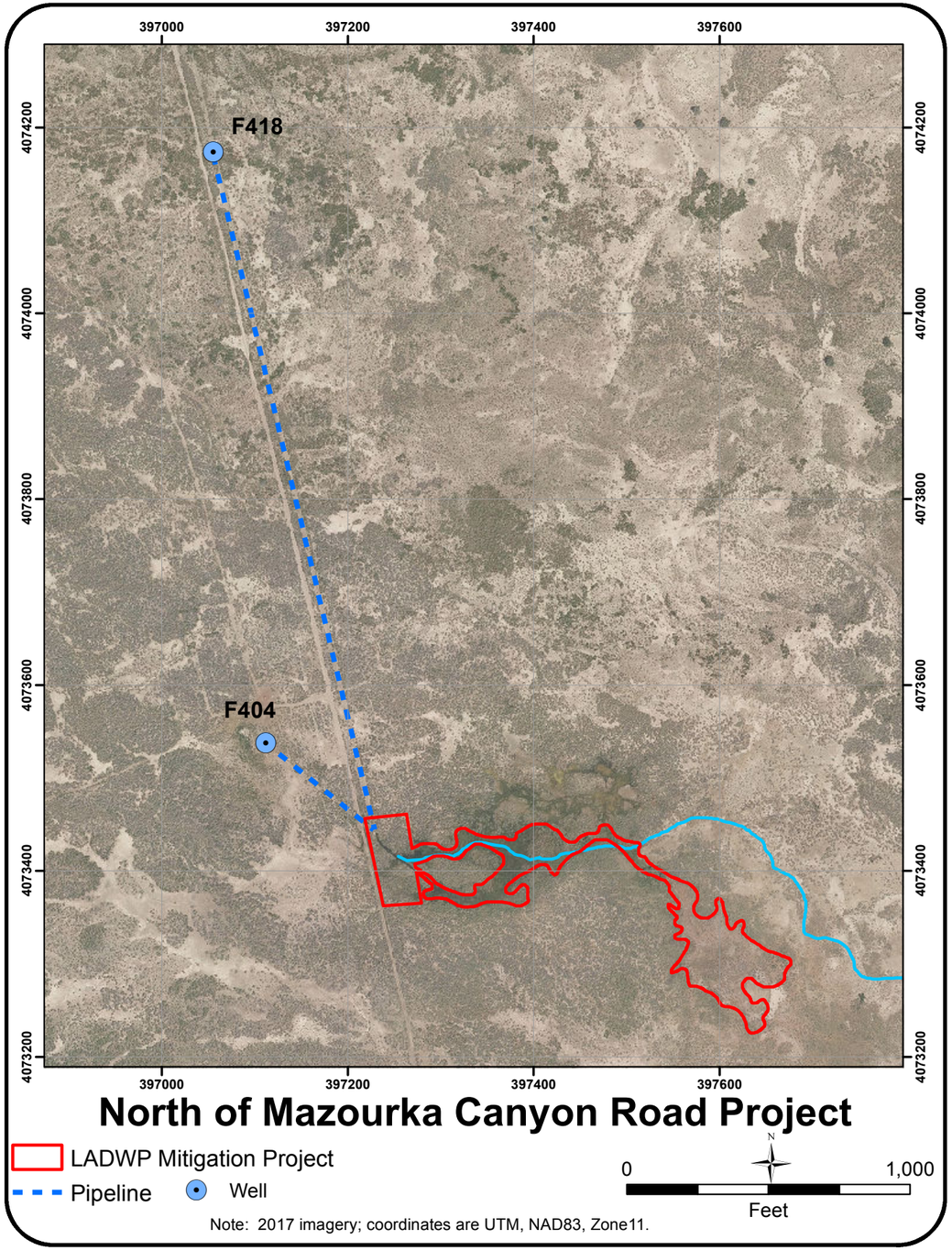
LADWP Mitigation Project

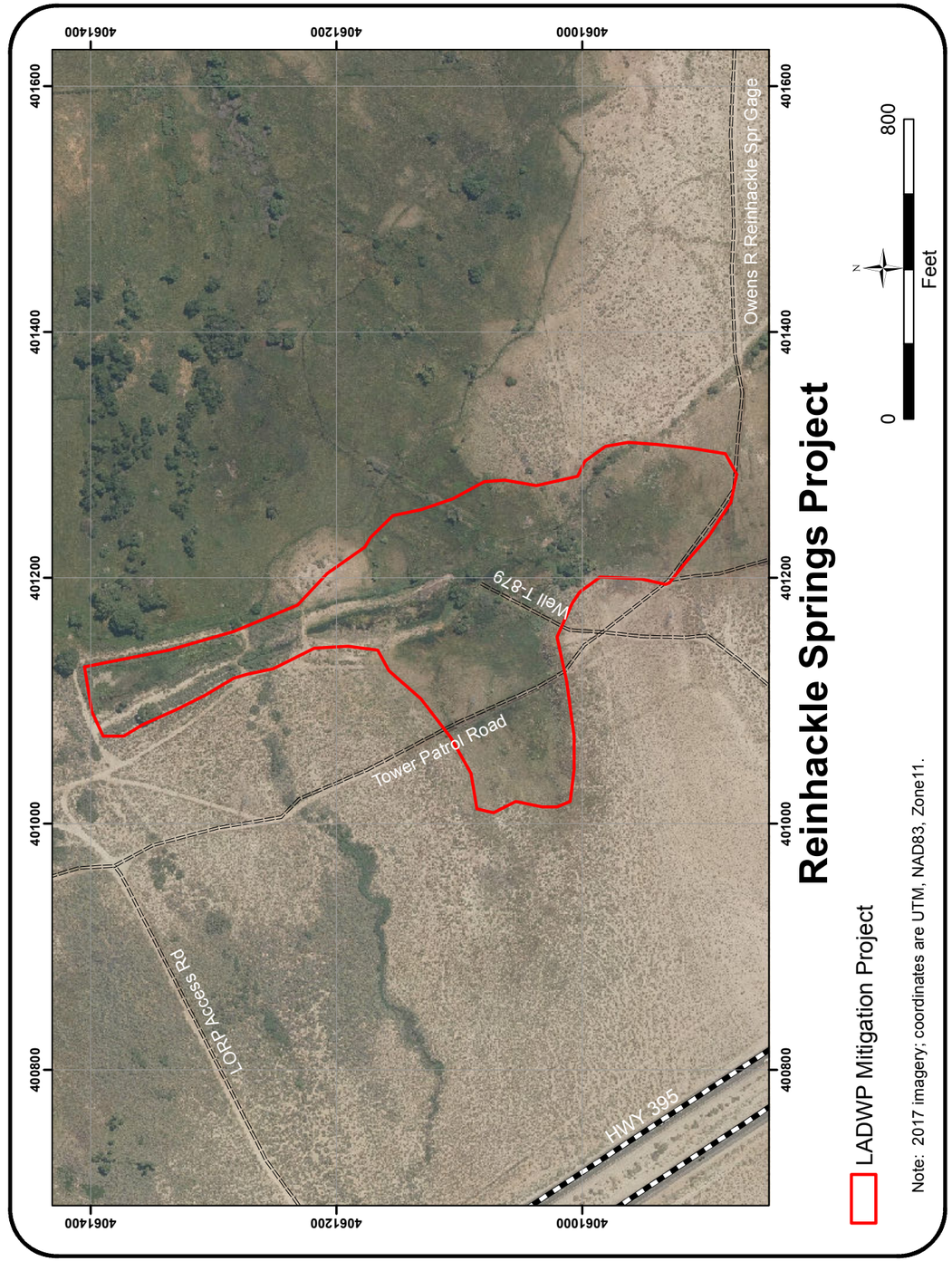
Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.

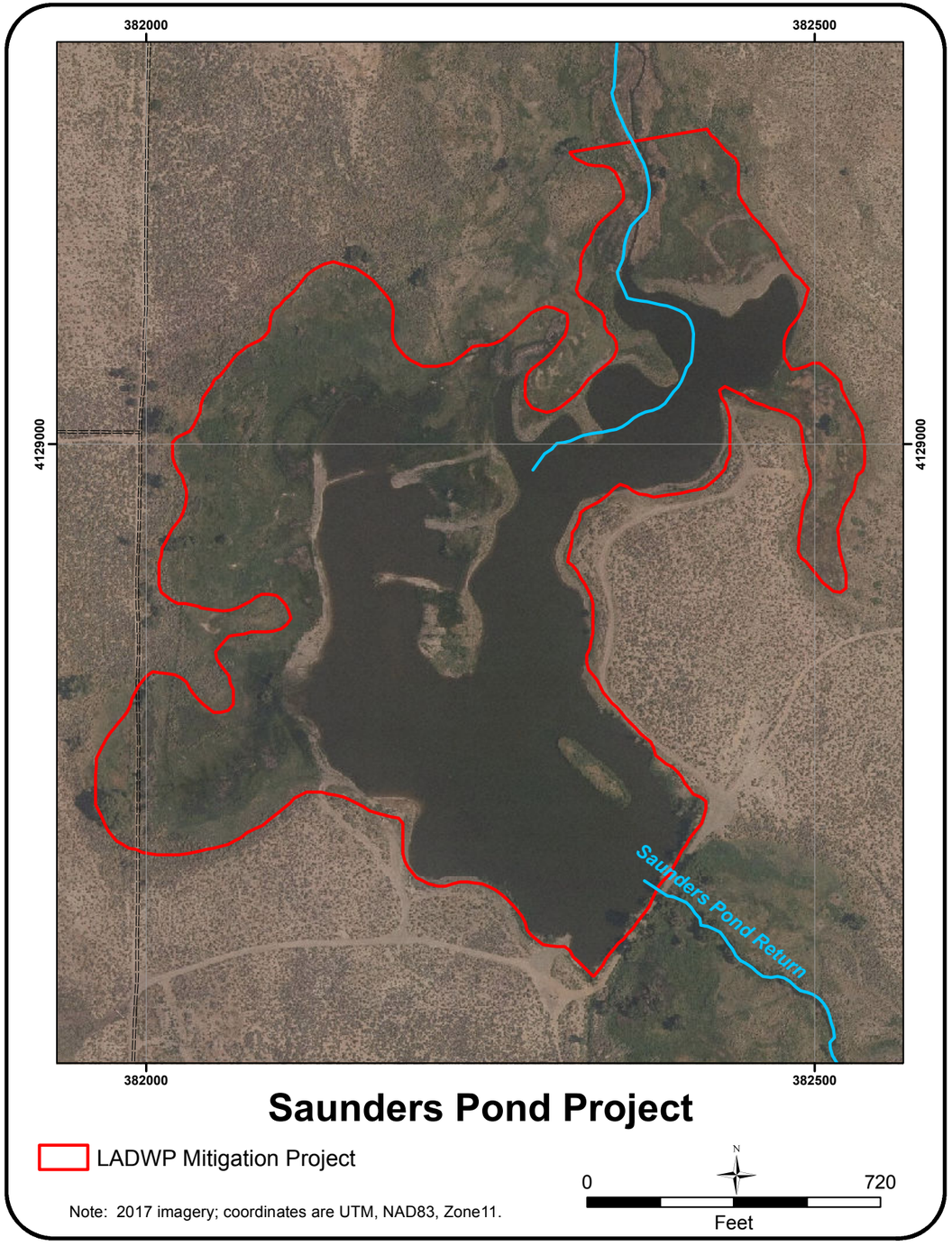
N

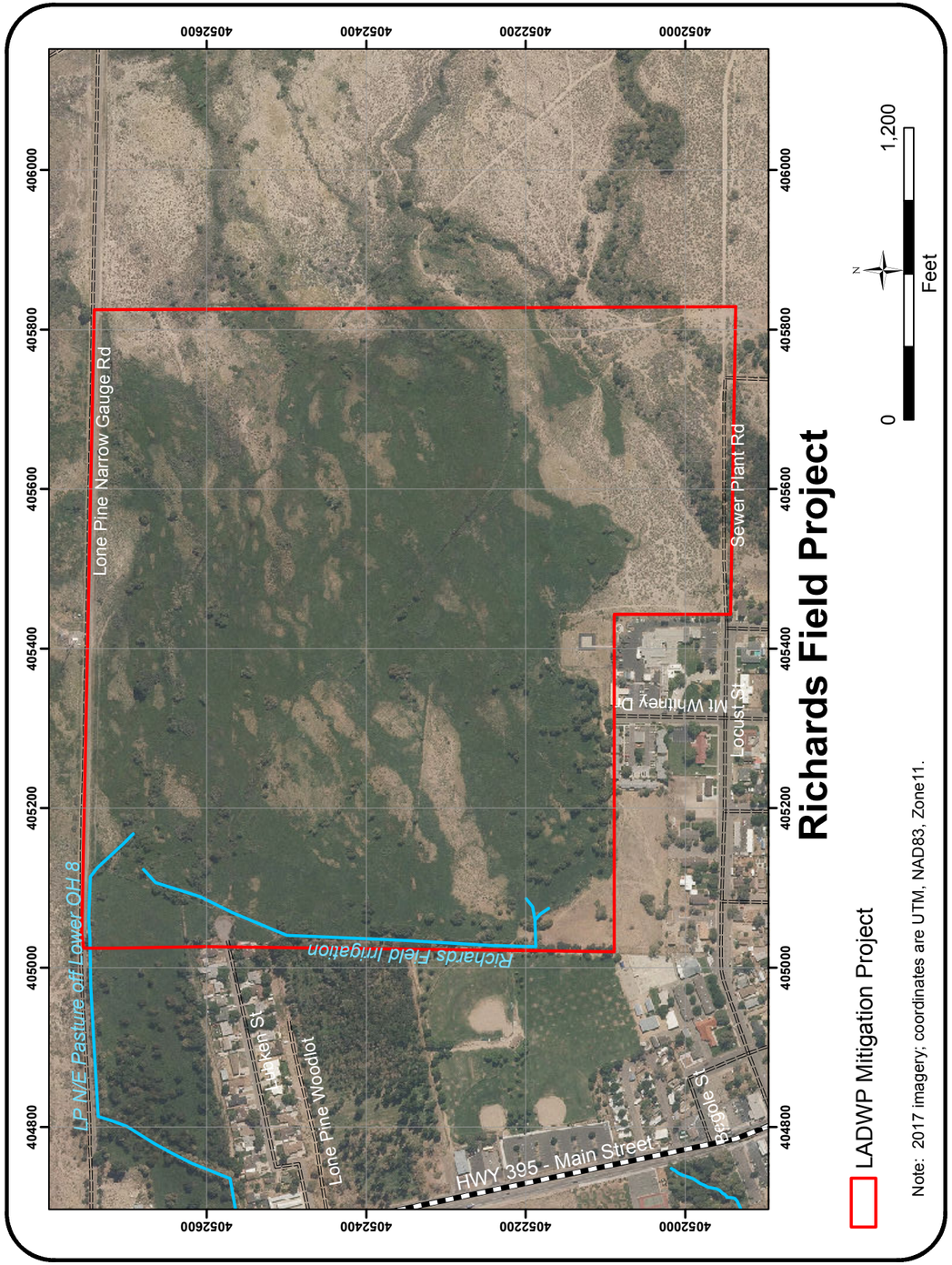
0 720

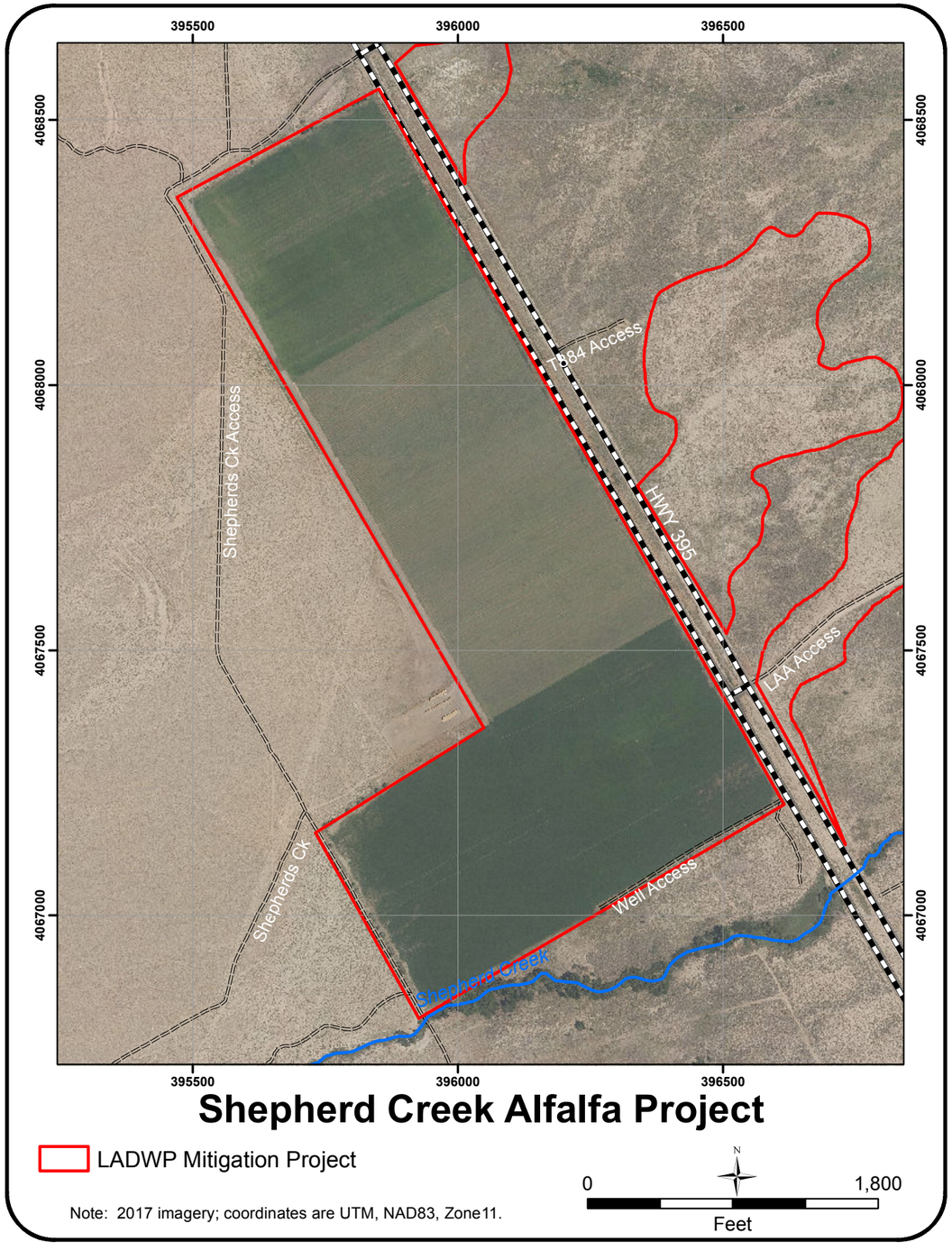
Feet


397000
397200
397400
397600
4074200
4074000
4073800
4073600
4073400
4073200
F418
F404
North of Mazourka Canyon Road Project
LADWP Mitigation Project
Pipeline
Well
0
1,000
Feet
Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.


406000
406200
406400
401600
401400
401200
401000
400800
Owens R. Reinhackle Spr Gage
Well T-879
Tower Patrol Road
LORP Access Rd
HWY 395
Reinhackle Springs Project
0
800
Feet
LADWP Mitigation Project
Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.


382000
382500
4129000
Saunders Pond Return
382000
382500
Saunders Pond Project
LADWP Mitigation Project
Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.
0
720
Feet


405200
405400
405600
405800
406000
404800
405000
Richards Field Project
Lone Pine Narrow Gauge Rd
Sewer Plant Rd
Mt Whitney Dr
Locust St
Richards Field Irrigation
UP N/E Pasture off Lower OH 8
Lincoln St
Lone Pine Woodlot
HWY 395 - Main Street
Boyle St
LADWP Mitigation Project
Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.
0
1,200
Feet

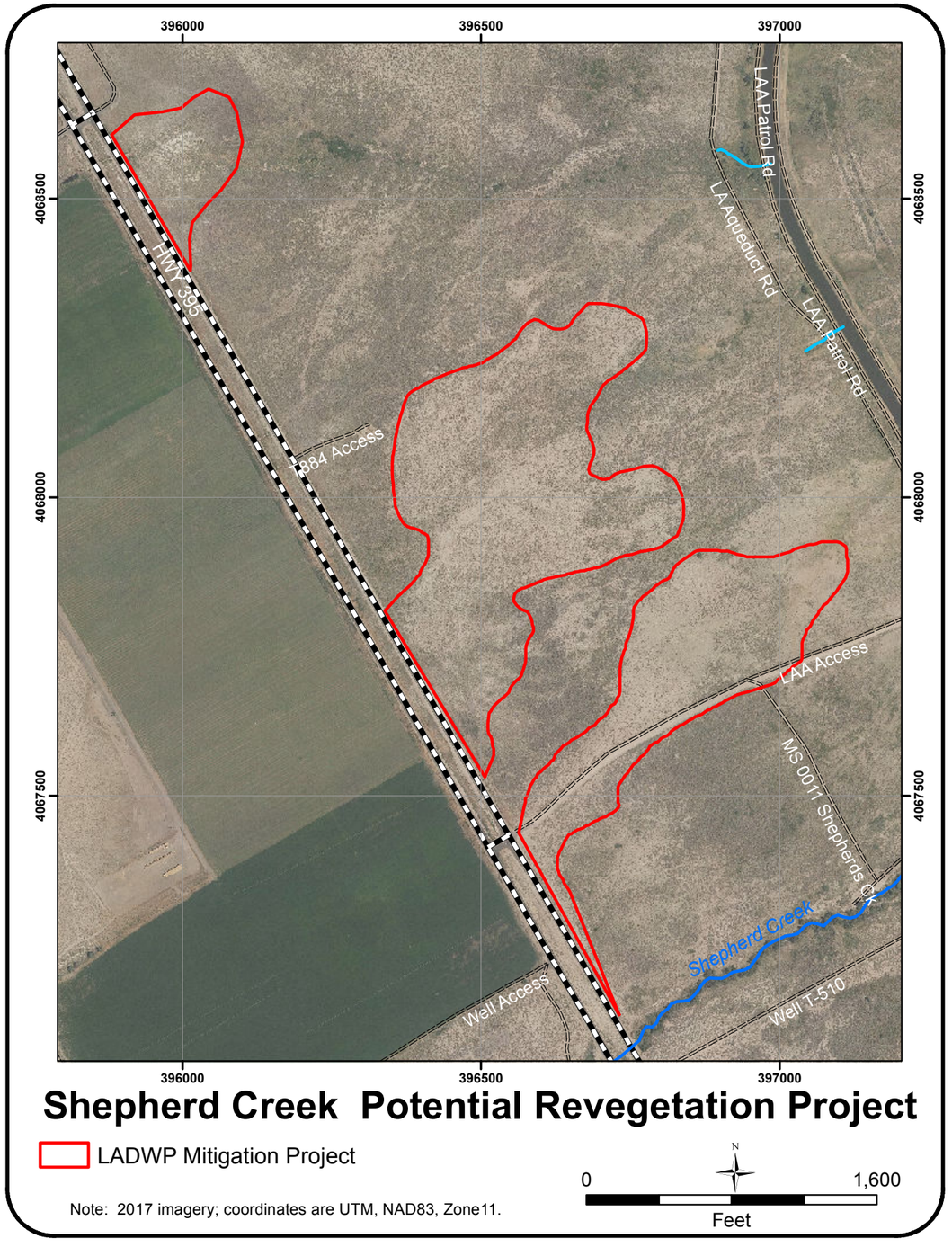


Shepherd Creek Alfalfa Project

LADWP Mitigation Project

Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.

0 1,800 Feet

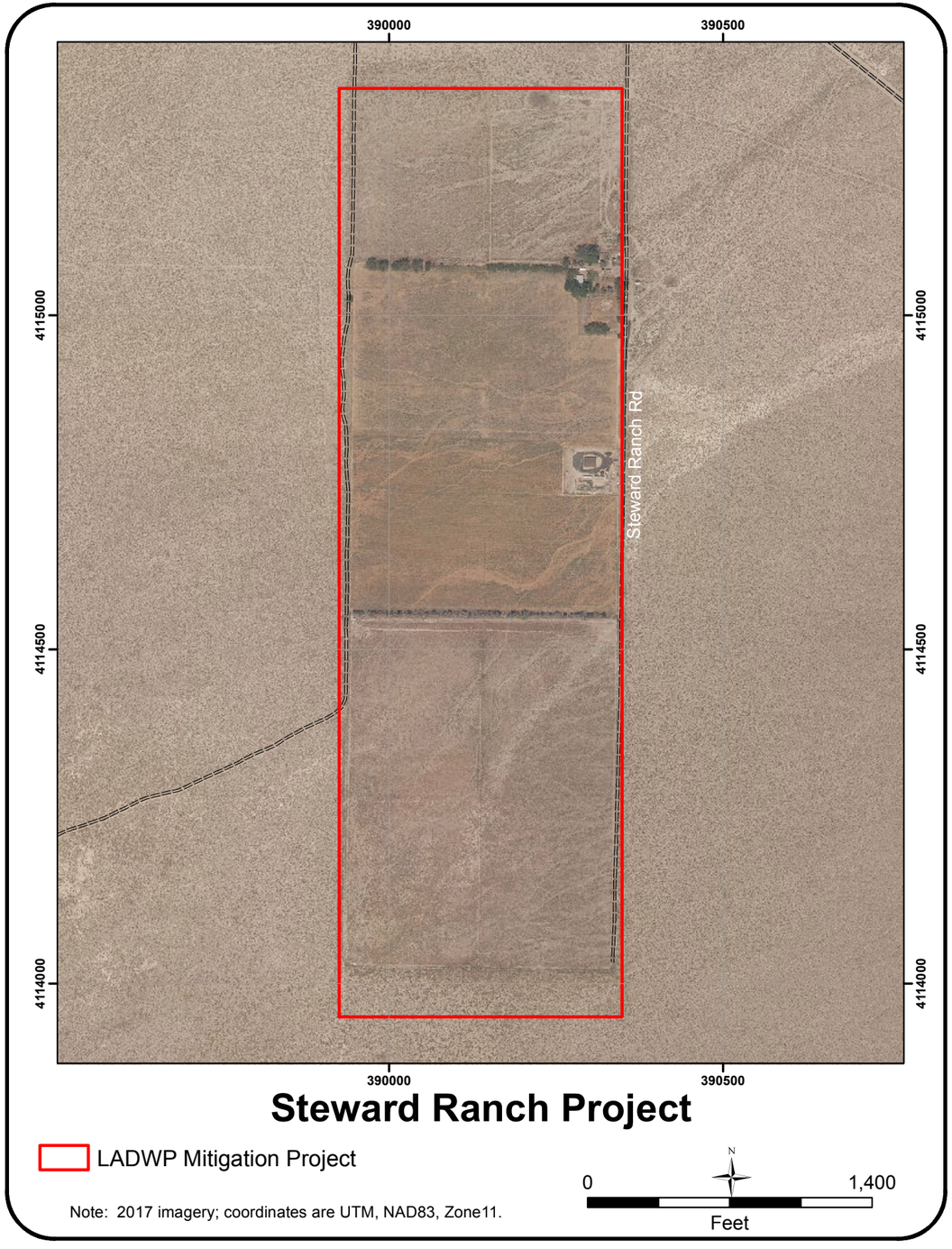


Shepherd Creek Potential Revegetation Project

LADWP Mitigation Project

Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.

0 1,600 Feet

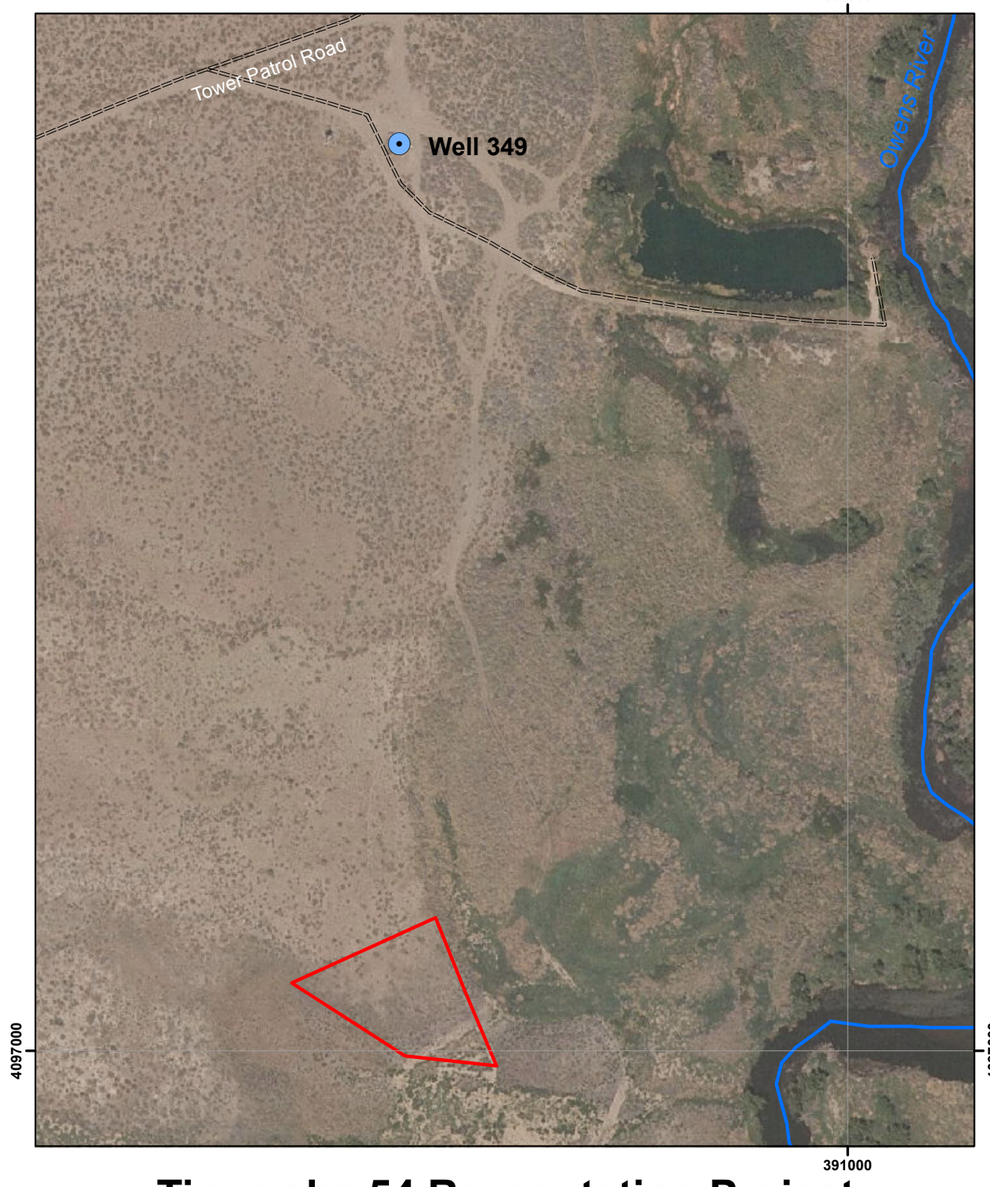


Steward Ranch Project

LADWP Mitigation Project

Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.

0 1,400 Feet

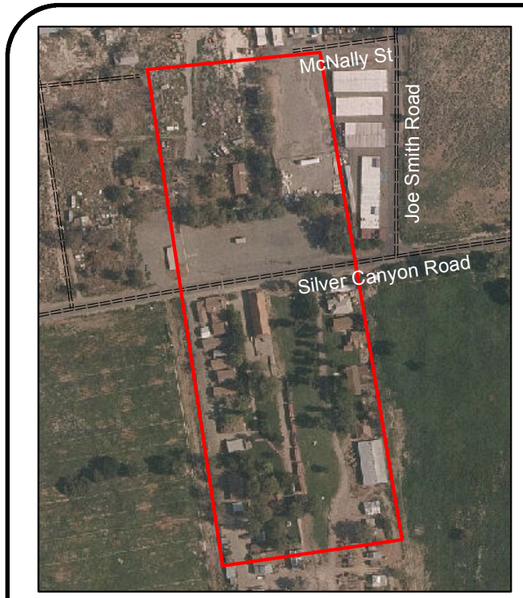


Tinemaha 54 Revegetation Project

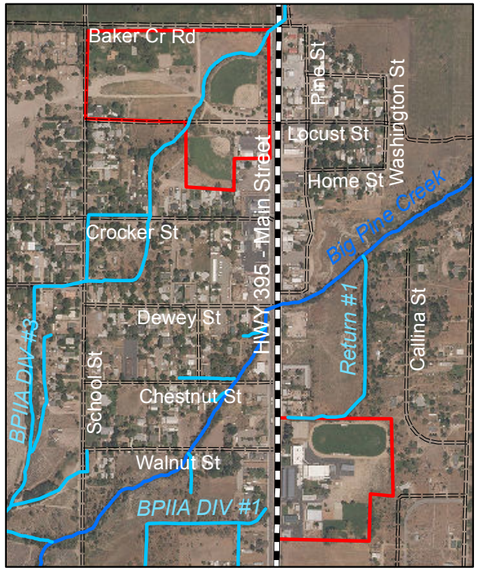
LADWP Mitigation Project

Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.

0 440 Feet

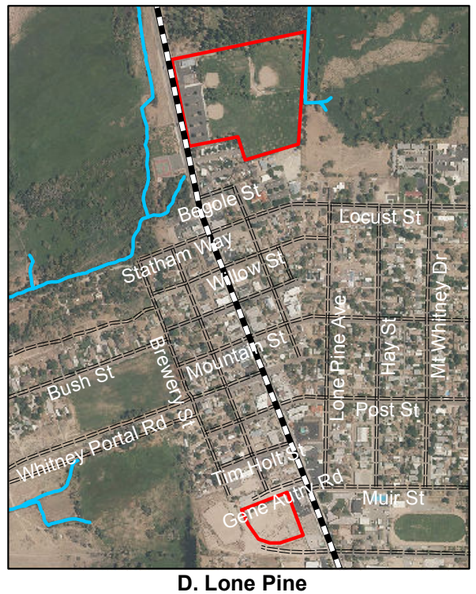


A. Laws.



B. Big Pine

C. Independence

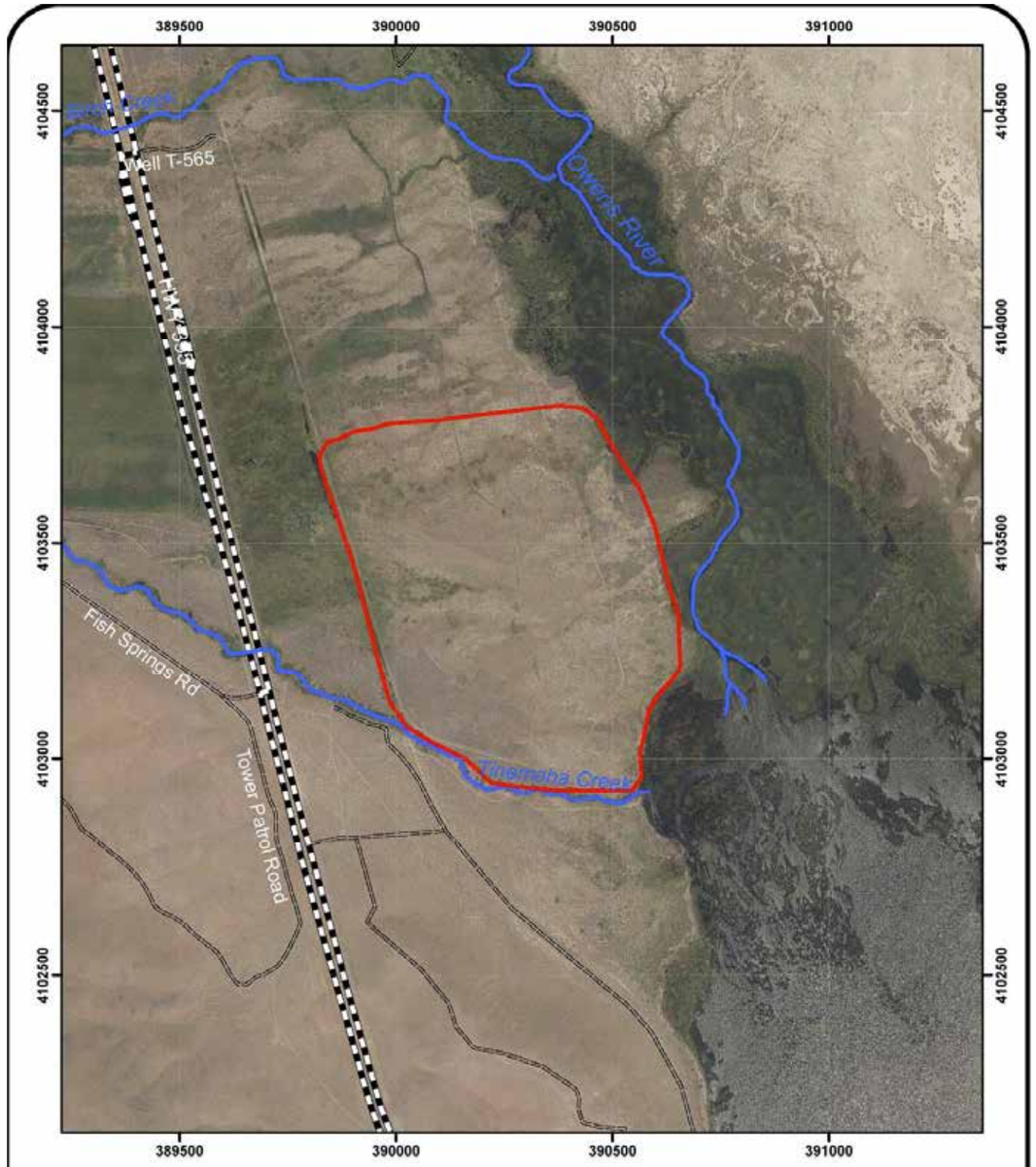


D. Lone Pine

Tree Planting Along Roadways Project

LADWP Mitigation Project

Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.



Tule Elk Field Project

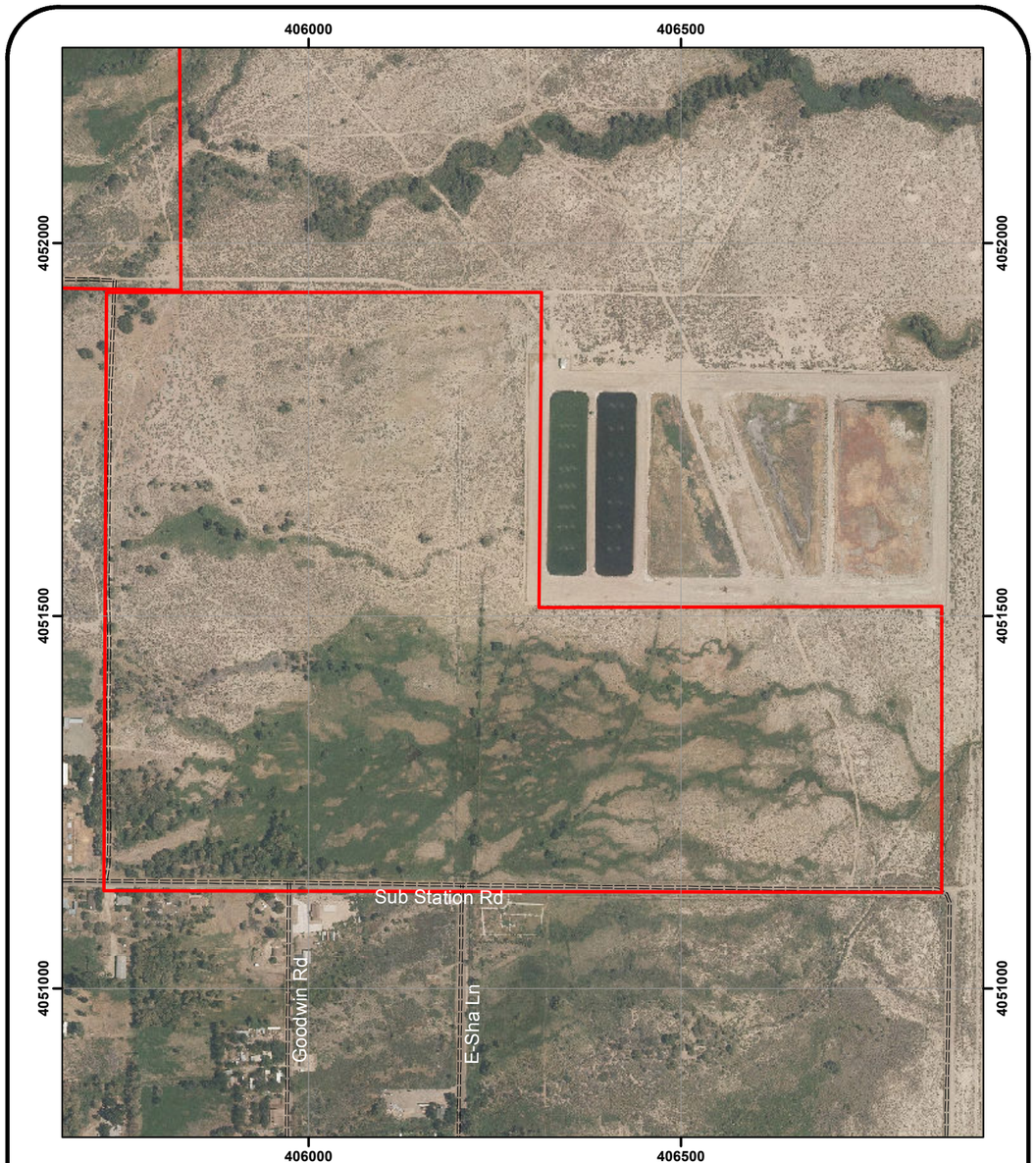
E&M_Project_Revised

E&M_Project_Revised

Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.

0 1,760

Feet



Van Norman Field Project

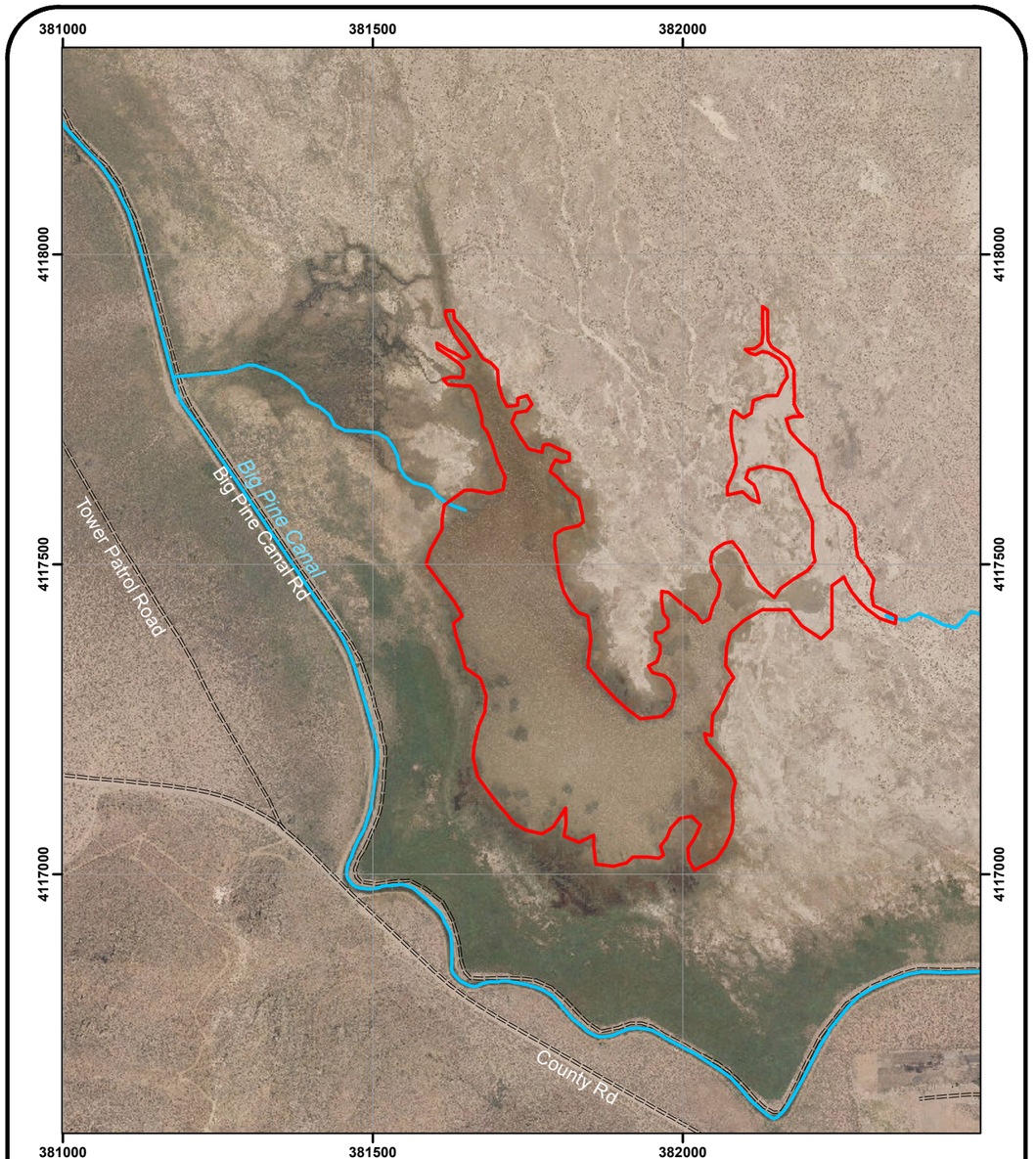
LADWP Mitigation Project

Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.

N

0 1,000

Feet



Warren Lake Project

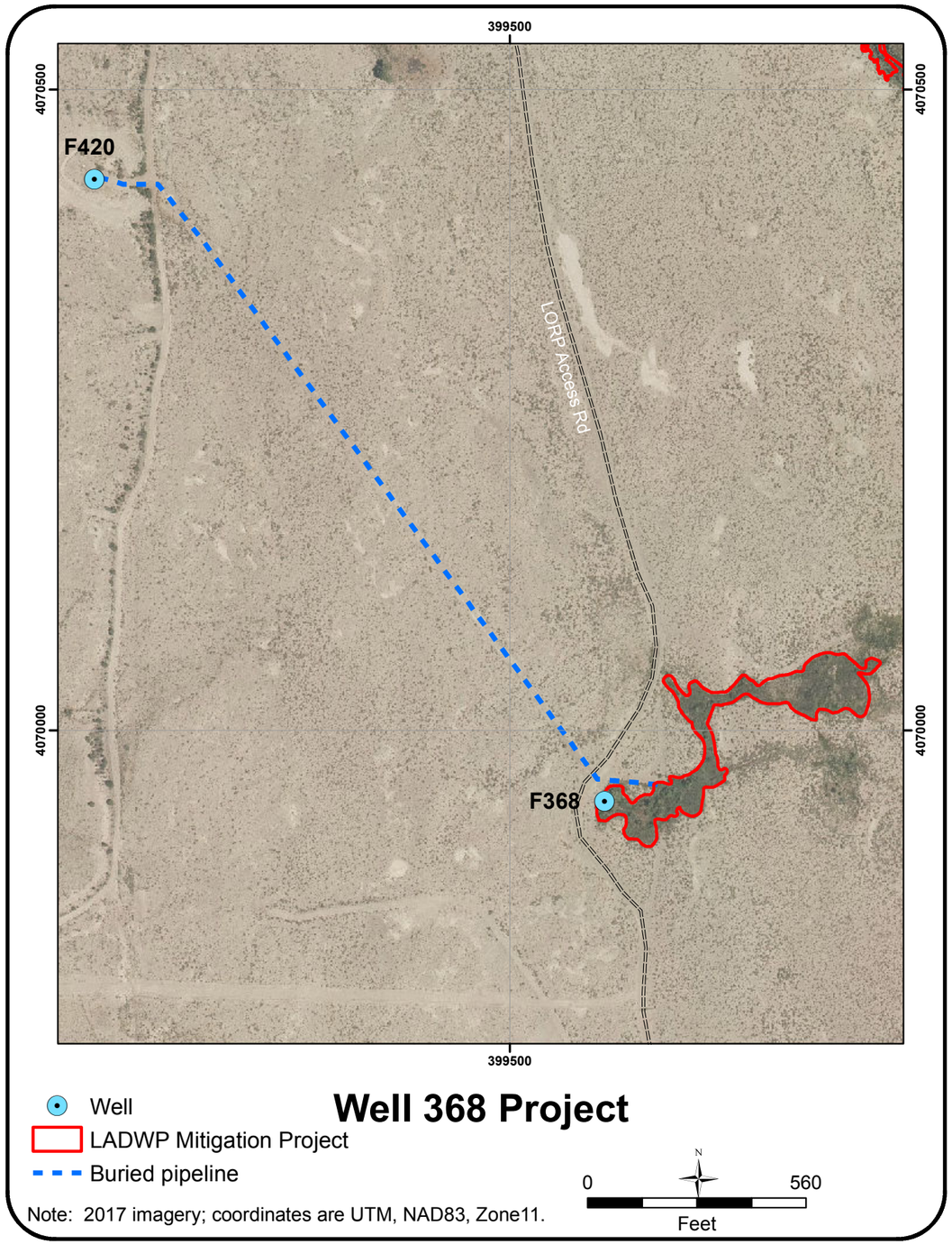
LADWP Mitigation Project

Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.

N

0 1,200

Feet


399500
4070500
4070500
F420
LORP Access Rd
4070000
4070000
F368
399500
Well
LADWP Mitigation Project
Buried pipeline
Note: 2017 imagery; coordinates are UTM, NAD83, Zone11.
Well 368 Project
N
0
560
Feet


BLACK ROCK
STATE FISH HATCHERY
PARKING
VISITING HOURS
8 AM TO 3 PM
DAILY

Owens Valley Environmental Mitigation Projects

LADWP Aqueduct Section
Bishop, California
August 2021

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LA DWP