

**5. 1991 OWENS VALLEY ENVIRONMENTAL IMPACT REPORT
(1991 Owens Valley EIR) MITIGATION MEASURE STATUS**

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Table 20 provides status of mitigations required by the EIR on Water from the Owens Valley to Supply the Second Los Angeles Aqueduct, October, 1991.

TABLE 20
1991 Owens Valley EIR Mitigation Measures

9 - WATER RESOURCES

Steward Ranch

1991 Owens Valley EIR Impact No. 9-14

Impacts: 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.

Project Description/
 Mitigation Measure: 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:

Mitigation Goals/
 Strategies/Actions: To compensate the ranch owners for lowered groundwater levels on the ranch.

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

Mitigation Plan
 Required/Status: No

10 - VEGETATION

Salt Cedar Eradication Control Program

1991 Owens Valley EIR Impact No. 10-6

Impacts: Between 1970 and 1990, LADWP continued to spread surplus water in wet years in the spreading areas created by the dikes east of Independence between the aqueduct and the river. This activity increased soil moisture and water tables, but also fostered conditions favorable to the spread of salt cedar, which was established prior to 1970.

Project Description/
Mitigation Measure: A salt-cedar eradication and control program has been implemented as described in Chapter 5 of the 1991 Owens Valley EIR.

Mitigation Goals/
Strategies/Actions: To control salt cedar in the Owens Valley

Project Status/
Effectiveness: The control efforts are continuing with payments from LADWP to ICWD and with outside funding. Control of Owens River salt cedar populations from Tinemaha Reservoir into the Delta has occurred along the main channel of the Owens River. Additional control efforts are now being conducted just south of the Two Culverts area.

Mitigation Plan
Required/Status: No

**Independence Springfield (297 acres), Independence Woodlot (20 acres),
Revegetation project East of Independence (part of Independence Springfield, 40 acres)**

1991 Owens Valley EIR Impact No. 10-11

Impacts: 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.

Project Description/
Mitigation Measure: 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.

Mitigation Goals/
Strategies/Actions: Woodlot - To supply fuel wood to needy individuals and to mitigate blowing dust.
Independence Springfield - To establish native perennial vegetation where none existed, reduce blowing dust and enhance grazing.

Project Status/
Effectiveness: Independence Woodlot has achieved its goals. California Department of Forestry helps with harvesting and cleanup and Inyo Mono Advocates for Community Action distributes wood to needy individuals according to the operations plan and the management guidelines developed by the Technical Group.
Independence Springfield has achieved its goal over approximately 280 acres. Additional acres need to be planted and is planned for initiation in 2009-2010 runoff year.

Mitigation Plan
Required/Status: No

Independence East Side Regreening Project (30 acres),
Big Pine Northeast Regreening (30 acres)

1991 Owens Valley EIR Impact No. 10-11

Impacts: continued from above

Project Description/
Mitigation Measure:

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.

Mitigation Goals
Strategies/Actions:

To enhance the aesthetics of the areas that lie adjacent to Independence and Big Pine

Project Status/
Effectiveness:

Mitigation plans were submitted to ICWD for these projects on August 13, 2004: Independence East Side Regreening Project and Town Water System - CEQA was filed on September 23, 2004 with a public comment period from September 23 to October 29, 2004. Responses to comments are complete. The Board of Water and Power Commissioners approved the Mitigated Negative Declaration in May 2005. Inyo County requested that three items in the project be modified: 1) The project well to be located approximately 100 yards to the east of the location designated in the Mitigated Negative Declaration. 2) That the method of irrigation be changed from flood irrigation to sprinkler irrigation. 3) That a portion of the total acreage be considered for corrals and stables. An amendment to the project scoping document that incorporates these changes was approved by the Standing Committee on April 23, 2009.

Big Pine Regreening – Mitigation Plans were transmitted to the County in 2004. Comments were received from the County in 2005. The County identified a portion of the project area for land release and sale. In addition, a portion of the Big Pine Ditch system runs through the project area. This reduced the original project area by less than an acre. A letter was sent to Inyo County in February 2008 asking for concurrence on the acreage change but a response has not been received. An archaeological survey of the site was completed as required by the CEQA process. Cultural resources were identified during the survey. These resources will be avoided during implementation. As a consequence, an amended mitigation plan will be submitted for Technical Group approval and CEQA will be completed for the project.

Mitigation Plan
Required/Status:

In progress.

Shepherd Creek Alfalfa Field (198 acres), Shepherds Creek Potential (60 acres).

1991 Owens Valley EIR Impact No. 10-11

Impacts: continued from above

Project Description/
Mitigation Measure:

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 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.

Mitigation Goals
Strategies/Actions:

Shepherd Creek Project - To revegetate abandoned farm land with alfalfa to mitigate blowing dust. Shepherd Creek Potential Project - To naturally increase the density of native cover or expand the existing project into this area.

Project Status/
Effectiveness:

The Shepherd Creek Project is 100% complete and has achieved its goals. 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.

Mitigation Plan
Required/Status:

No

Taboose/Hines Springs/Blackrock Areas Revegetation Project (80 acres)
(The 80 acres is comprised of Tinemaha 54, Hines Spring S and Blackrock 16E)

1991 Owens Valley EIR Impact No. 10-11

Impacts: continued from above

Project Description/
Mitigation Measure:

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.

Mitigation Goals/
Strategies/Actions:

Tinemaha 54 - To restore vegetation to the conditions that existed prior to the impact.
Hines Spring S - Dependent on the Hines Spring mitigation project presented below.
Blackrock 16E - To rehabilitate the site to alkali meadow conditions.

Project Status/
Effectiveness:

Tinemaha 54 - The 0.3 acre area has been fenced, planted with 108 grass plants and drip irrigated between 1999 and 2004 to get the plants established. As stated in the EIR, the intent was not to permanently irrigate revegetation sites. Permanent transects were run in 2004. Hines Spring S will not be implemented until Hines Spring mitigation is implemented. Blackrock 16E - The area has been fenced and weeds have been treated by controlled burn. Cover of native species has increased from 5% in 1999 to 12% in 2002. Weed cover decreased from 9% in 1999 to less than 1% in 2002. Permanent transects were run in 2005 and perennial cover had decreased since 2002 and weed cover had increased. A contractor was hired to collect native seed and a seed farm has been initiated for seed harvest. The seed farm will aid in the implementation of all revegetation projects in the Owens Valley. In addition, a green house was purchased and LADWP has begun growing plants for the seed farm and revegetation sites.

Mitigation Plan
Required/Status:

Yes – complete.

Five Bridges Area Revegetation Project (300 acres)

1991 Owens Valley EIR Impact No. 10-12

Impacts: 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.

Project Description/
Mitigation Measure:

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 the entire affected area with riparian and meadow vegetation. This plan will be implemented when it has been completed.

Mitigation Goals
Strategies/Actions:

To restore the vegetation community complex with similar species composition and cover that exists at local similar sites. The goal will be attained when alkali meadows attain live cover of 60% composed of four perennial species and riparian areas attain live cover of 90% composed of four perennial species.

Project Status/
Effectiveness:

Riparian areas have been fenced, water releases are conducted three times during the growing season, several controlled burns have been conducted, and the area is treated annually for weed problems. Monitoring was conducted throughout the growing season. In 2008, water releases were conducted three times during the growing season. At transect L4 in 2008 perennial cover was 52% composed of five native species. Perennial cover at transect L5 in 2008 was 74% and composed of six native species. A grazing management plan has been developed for the area.

Mitigation Plan
Required/Status:

Yes – complete.

Symmes-Shepherd Well field Area Revegetation Project (60 acres)
(The area is comprised of Independence 105, Independence 131 and Independence 123)

1991 Owens Valley EIR Impact No. 10-13

Impacts: Increased groundwater pumping has significantly adversely affected approximately 60 acres of vegetation in the Symmes-Shepherd well field area.

Project Description/
Mitigation Measure: A revegetation program will be implemented for these affected areas utilizing native vegetation of the type that has died. Water may be spread as necessary in these areas to accomplish the revegetation.

Mitigation Goals
Strategies/Actions: To revegetate the parcels with species mapped in the surrounding areas.

Project Status/
Effectiveness: While 60 acres was identified in the EIR, 115 acres were fenced for these three projects.

Ind. 105 (14 acres) - The area has been fenced and native vegetation cover has increased naturally. Transects were run by ICWD in 2006 and native perennial cover had increased to 25%. The site has attained the cover and composition goals delineated in the revegetation plan.

Ind. 131 (73 acres) - The area has been fenced. Revegetation trials have been completed by two consulting firms. In areas not disturbed by the revegetation trials, vegetation cover is starting to increase naturally. Transects were run in 2006. Perennial cover is 8% composed of eight native perennial species.

Ind. 123 (28 acres) - The area has been fenced and native perennial vegetation cover has increased naturally. Transects were run in 2006. The site has attained the goals delineated in the revegetation plan of 17% perennial cover composed of four native perennial species.

A contractor was hired to collect native seed and a seed farm has been initiated for seed harvest. The seed farm will aid in the implementation of all revegetation projects in the Owens Valley. In addition, a green house was purchased and LADWP has begun growing plants for the seed farm and revegetation sites.

Mitigation Plan
Required/Status: Yes – complete.

Fish Springs Hatchery, Blackrock Spring Hatchery

1991 Owens Valley EIR Impact No. 10-14

Impacts: 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.

Project Description/
Mitigation Measure: No on-site mitigation will be implemented at Fish Springs and Big Blackrock Springs; however, the CDFG fish hatcheries at these locations serve as mitigation of a compensatory nature by producing fish that are stocked throughout Inyo County.

Mitigation Goals/
Strategies/Actions: To allow CDFG to continue fish hatchery operations at Big Blackrock and Fish Springs.

Project Status/
Effectiveness: Hatchery operations continue

Mitigation Plan
Required/Status: No

Big and Little Seely Springs (1 acre pond adjacent to well W349)

1991 Owens Valley EIR Impact No. 10-14

Impacts: See description above.

Project Description/
Mitigation Measure: In the area of Big and Little Seely Springs, LADWP Well 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.

Mitigation Goals/

Strategies/Actions: To manage groundwater pumping in accordance with the goals of the Agreement, replace the previous water resource with surface water and/or groundwater and allow the affected area to naturally revegetate.

Project Status/
Effectiveness: Project implementation is complete and the project functions as described.

Mitigation Plan
Required/Status: No

Hines Spring (1 to 2 acres)

1991 Owens Valley EIR Impact No. 10-14

Impacts: See description above.

Project Description/
Mitigation Measure: The Hines Spring vent and its surroundings will receive on-site mitigation. Water will be supplied to the area from an existing, but unused, LADWP well at the site. As a result, approximately one to two acres will either have ponded water or riparian vegetation. Hines Spring will serve as a research project on how to re-establish a damaged aquatic habitat and surrounding marshland. Riparian trees and a selection of riparian herbaceous species will be planted on the banks. The area will be fenced.

Mitigation Goals/
Strategies/Actions: To provide water from an existing, but unused, LADWP well to create 1-2 acres of ponded water or riparian vegetation at Hines Springs

Project Status/
Effectiveness: This project was also identified in the 1997 MOU and the 2006 Stipulation and Order. Consultants developed draft plans for this project. The Parties to the MOU decided to enter into an ad hoc process to analyze the project at Hines Springs and other potential project areas. Conceptual plans have been completed. When plans are finalized and agreed to by the Parties, CEQA will be completed and implementation of the project will be initiated.

Mitigation Plan
Required/Status: Yes – in progress.

Reinhackle Spring, Little Blackrock Springs

1991 Owens Valley EIR Impact No. 10-14

Impacts: See description above.

Project Description/
Mitigation Measure:

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. When it was determined in the late 1980's 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 (see below) and contained in the Agreement and the Green Book, will be applied equally to Reinhackle Spring.

Mitigation Goals/
Strategies/Actions:

Little Blackrock Spring - To maintain marsh vegetation through the use of the Division Creek Diversion.
Reinhackle Spring - Groundwater pumping will be managed so that flows from the spring will not be significantly reduced compared to flows under prevailing natural conditions.

Project Status/
Effectiveness:

Little Blackrock Spring - This project is complete and the project functions as described.
Reinhackle Spring - Spring flows are being monitored. A geochemistry study that included Reinhackle Spring was initiated in February 2003 and completed in December 2004. The study was conducted cooperatively by LADWP, MWH and ICWD. Three shallow test holes and one deep test hole were installed to aid in study implementation. This study analyzed water samples from Reinhackle Spring in comparison to water samples from the aqueduct, pumping wells, deep wells and shallow wells. This study concluded that the water flowing from Reinhackle Spring is similar in origin to the aqueduct and dissimilar to the deep aquifer samples and upgradient shallow aquifer wells. The final phase of spring flow response to pumping test will be conducted in the near future.

Mitigation Plan
Required/Status:

No

LORP Project (60 miles, perhaps more than 1,000 acres)

1991 Owens Valley EIR Impact No. 10-14

Impacts: See description above.

Project Description/
Mitigation Measure:

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 60+ 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 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.

Mitigation Goals/
Strategies/Actions:

To re-water the Lower Owens River below the Los Angeles Aqueduct intake and the enhancement of several environmental features along or near the river including the Delta, the Blackrock Waterfowl area and Off-River Lakes and Ponds. The goal of the LORP is the establishment of a healthy, functioning ecosystem for the benefit of biodiversity and Threatened and Endangered Species, while providing for the continuation of sustainable uses including recreation, livestock grazing, agriculture and other activities.

Project Status/
Effectiveness:

Flows were initiated in the Lower Owens River Project in December 2006. Phase 1 flows were met and exceeded. Project baseflows were achieved in February 2007. The first seasonal habitat flow was initiated on February 13, 2008 and completed on schedule. Specified flows were released to the Delta in 2008. The Blackrock Waterfowl Area achieved the 2008 specified acreage through water releases. Off-River Lakes and Ponds have been managed as specified for 2008. Training, monitoring and reporting are being conducted as specified in the various permits.

Mitigation Plan
Required/Status:

Yes – complete.

Lower Owens River Rewatering Project (18,000 ACFT/YR)

1991 Owens Valley EIR Impact No. 10-14

Impacts: See description above.

Project Description/
Mitigation Measure: This project provides up to 18,000 acft/yr of continuous flow of water in a 50-mile, previously dry (1913-1986) portion of the river channel creating a warm water fishery and wildlife habitat in the southern Owens Valley. The project also supplies water to five small lakes along the river route providing improved waterfowl habitat in the region.

Mitigation Goals
Strategies/Actions: The goal of the E/M project was to create a warm watery fishery and wildlife habitat in the southern Owens Valley. In addition, five small lakes were provided water for waterfowl habitat.

Project Status/
Effectiveness: This project has been overlaid by the LORP Project described above.

Mitigation Plan
Required/Status: No

Springs Vegetation (general)

1991 Owens Valley EIR Impact No. 10-14

Impacts: See description above.

Project Description/
Mitigation Measure: In addition, vegetation dependent on a supply of water from a spring (primarily management type D) will be maintained in order to avoid a significant change or decrease as provided in the Agreement and the Green Book.

Mitigation Goals
Strategies/Actions: Per description

Project Status/
Effectiveness: On-going

Mitigation Plan
Required/Status: No

Springs and Seeps

1991 Owens Valley EIR Impact No. 10-15

Impacts: 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.

Project Description/
Mitigation Measure: The Green Book contains procedures for determining the effects of groundwater pumping and surface water management practices on spring flow. 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. If despite such management, significant decreases in spring flows occur that could cause significant decreases or changes in vegetation dependent upon such flows, management of groundwater pumping from wells affecting flow from the spring will be modified so that adequate spring flow resumes to supply the vegetation. Also, the Technical Group would determine an appropriate course of action that might include: (a) temporarily supplying surface water or groundwater of a quality that would restore and sustain the vegetation until adequate spring flow resumes; and/or (b) revegetating the affected area if necessary.

Mitigation Goals/
Strategies/Actions: Per description

Project Status/
Effectiveness: On-going

Mitigation Plan
Required/Status: No

**Independence Pasture Lands and Native Pasture Lands (610 acres),
Van Norman Fields (171 acres), Richards Fields (160 acres),
Lone Pine Woodlot (12 acres)**

1991 Owens Valley EIR Impact No. 10-16

Impacts: 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.

Project Description/
Mitigation Measure: 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 Lands and native pasture lands, the Van Norman and Richards Fields, and the Lone Pine Woodlot adjacent to Lone Pine.

Mitigation Goals/
Strategies/Actions: Independence Pasturelands/Native Pastures - To revegetate abandoned cropland that was removed from irrigation. Van Norman Field and Richards Field - To revegetate abandoned agricultural lands and native vegetation stands that were revegetating slowly. Lone Pine Woodlot - To supply fuel wood to needy individuals and to mitigate blowing dust.

Project Status/
Effectiveness: Currently, at the Independence Pasturelands/Native Pastures approximately 520 acres are incorporated into the project. The EIR noted the acreage for this project as 610 acres. The figure(12-2) for the project in the 1991 EIR was scanned and rubber sheeted onto a quad sheet for acreage calculations in GIS. The Independence pasturelands acreage in this image was 522 acres. Therefore, LADWP has implemented the acreage designated in the figure presented in the 1991 EIR. The other projects noted above are complete and the goals for the projects have been met. At the Lone Pine Woodlot, the California Department of Forestry helps with harvesting and cleanup and Inyo/Mono Advocates for Community Action distributes wood to needy individuals in accordance with the operation plans and management guidelines developed by the Technical Group. At the Van Norman Field, a portion of the project cannot be irrigated because of topography. This area was evaluated jointly by LADWP and Inyo County and a decision was made that this high area could not be modified to increase irrigation efficiency but that the project was fulfilling its stated goals.

Mitigation Plan
Required/Status: No

Lone Pine East Side Regreening (11 acres),
Lone Pine West Side Regreening (7 acres)

1991 Owens Valley EIR Impact No. 10-16

Impacts: continued from above

Project Description/
Mitigation Measure:

A field of approximately seven acres along the Whitney Portal Road in Lone Pine, and a field of approximately 11 acres located 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. A field of approximately seven acres along the Whitney Portal Road in Lone Pine, and a field of approximately 11 acres located 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.

Mitigation Goals/
Strategies/Actions:

To enhance the aesthetics and to regreen abandoned agricultural lands in the Lone Pine area.

Project Status/
Effectiveness:

Project implementation is complete and the goals for these projects have been met.

Mitigation Plan
Required/Status:

No

Bishop Area Revegetation Project (120 acres)

1991 Owens Valley EIR Impact No. 10-16

Impacts: continued from above

Project Description/
Mitigation Measure:

In addition, 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.

Mitigation Goals/
Strategies/Actions:

To revegetate the parcel with species found in the surrounding area. 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 Status/
Effectiveness:

The area has been fenced and a consulting firm has conducted revegetation studies on the site. Monitoring of the site was completed in 2003. The results of this study and other studies conducted on revegetation will be utilized to move forward with larger scale revegetation efforts at this site. A contractor was hired to collect native seed and a seed farm has been initiated for seed harvest. The seed farm will aid in the implementation of all revegetation projects in the Owens Valley. In addition, a green house was purchased and LADWP has began growing plants for the seed farm and revegetation. Depending on the amount of rainfall and runoff, successful revegetation of these lands could take a decade or longer.

Mitigation Plan
Required/Status:

Yes – complete.

Irrigated Lands in the Owens Valley since 1981-82

1991 Owens Valley EIR Impact No. 10-16

Impacts: continued from above

Project Description/
Mitigation Measure: Irrigated lands in Owens Valley (including the Olancha-Cartago area) in existence during the 1981-82 runoff year or that have been irrigated in the future, except perhaps in very dry years. (Reductions in very dry years must be agreed upon in advance by LADWP and the Inyo County Board of Supervisors).

Mitigation Goals/
Strategies/Actions: To maintain existing irrigated lands.

Project Status/
Effectiveness: Irrigation is ongoing.

Mitigation Plan
Required/Status: No

**Meadow/Riparian Vegetation dependent on Agricultural Tailwater,
LORP Project (60 miles of river, perhaps more than 1,000 acres)**

1991 Owens Valley EIR Impact No. 10-17

Impacts: Meadow and riparian vegetation that were supplied by tailwater from formerly irrigated lands has been impacted.

Project Description/
Mitigation Measure: The loss of meadow or riparian vegetation that was dependent on tailwater from formerly irrigated fields will be mitigated in the form of compensation by the restoration of meadow and riparian vegetation by the Lower Owens River Project.

Mitigation Goals/
Strategies/Actions: See LORP (Impact 10-14)

Project Status/
Effectiveness: See LORP (Impact 10-14)

Mitigation Plan
Required/Status: No

Laws Area Revegetation Project (140 acres)

1991 Owens Valley EIR Impact No. 10-18

Impacts: 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.

Project Description/
Mitigation Measure: 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.

Mitigation Goals/
Strategies/Actions: To revegetate the site with native species found in the surrounding area.

Project Status/
Effectiveness: The area has been fenced and 2 consulting firms have conducted revegetation studies on the site. Final monitoring was conducted in 2004. The results of these studies were utilized to move forward with larger scale revegetation efforts at this site. The drip irrigation system installed during one of the studies was expanded and seed was planted at all emitters. The system was run from late June till the beginning of November in 2004. In 2005, the drip irrigation system located in areas with well established plants was moved to the interspaces between rows. Permanent transects were run in 2006. In 2006, 2007 and 2008 the irrigation system was run from April to the first forecast hard freeze in October. Seed was planted in the basins at drip emitters and at basins that had been previously seeded if no plants were present. Maintenance was performed as needed on the irrigation system. A contractor was hired to collect native seed and a seed farm has been initiated for seed harvest. The seed farm will aid in the implementation of all revegetation projects in the Owens Valley. In addition, a green house was purchased and LADWP has began growing out plants for the seed farm and revegetation

Mitigation Plan
Required/Status: Yes – complete.

**Laws/Poleta Native Pasture (216 acres),
Laws Historical Museum Pasturelands (21+15 acres),
and McNally Ponds and Native Pasturelands (348 acres)**

1991 Owens Valley EIR Impact No. 10-18

Impacts: See description above

Project Description/
Mitigation Measure:

In the mid-1980's, 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.

Mitigation Goals/
Strategies/Actions:

Laws/Poleta Pasturelands - To revegetate the project site with native pasture. Laws Museum - To improve native vegetated areas adjacent to the Museum and to provide windbreak trees. McNally Ponds and Native Pasturelands - To provide a seasonal water supply to ephemeral ponds, create waterfowl habitat, enhance vegetation and increase grazing capabilities.

Project Status/
Effectiveness:

Fully implemented. Laws Historical Museum Pasture. The project is complete and the goals for the project are being met. The Standing Committee decided in 1991 to eliminate 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 eliminated water releases to this project. Because of abundant runoff in 2006-2007 the project received its full allotment of water. In 2008-2009 the project did not receive water because the Interim Management Plan did not allow the associated wells to be pumped.

Mitigation Plan
Required/Status:

No

Farmers Pond

1991 Owens Valley EIR Impact No. 10-18

Impacts: See description above

Project Description/
Mitigation Measure: In the 1970's, LADWP started the Farmer's Pond environmental project.

Mitigation Goals/
Strategies/Actions: To provide water to fill the ponds each fall for use by wildlife.

Project Status/
Effectiveness: Being implemented.

Mitigation Plan
Required/Status: No

Groundwater Monitoring/Pumping Reductions in the Laws Area

1991 Owens Valley EIR Impact No. 10-18

Impacts: See description above

Project Description/
Mitigation Measure: The area where it is suspected that groundwater pumping during the recent drought has caused decreases or changes in vegetation is being monitored by LADWP and Inyo County. Groundwater pumping has been reduced in the area. Should it be determined that any significant decreases or changes have occurred, the area will be mitigated under the Agreement.

Mitigation Goals/
Strategies/Actions: No project at this time

Project Status/
Effectiveness: Being implemented

Mitigation Plan
Required Status: No

Laws 640 acre Potential

1991 Owens Valley EIR Impact No. 10-18

Impacts: Approximately 640 acres in the Laws area have a very low density of vegetation cover. The primary cause of the loss or reduction of vegetation is not a result of the project.

Project Description/
Mitigation Measure: These lands will be considered by the Standing Committee for selective mitigation, which would be compatible with water spreading and groundwater recharge activities during wet years.

Mitigation Goals/
Strategies/Actions: To increase vegetation density.

Project Status/
Effectiveness: A determination has not been made by the Standing Committee for selective mitigation.

Mitigation Plan
Required/Status: Yes, if implemented.

Big Pine Area Revegetation Project (160 acres)

1991 Owens Valley EIR Impact No. 10-19

Impacts:	Water management practices in a portion of the Big Pine Well Field have resulted in significant adverse change and decrease of plant cover.
Project Description/ Mitigation Measure:	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.
Mitigation Goals/ Strategies/Actions:	To revegetate the area with species found in the surrounding area.
Project Status/ Effectiveness:	The site has been fenced. Permanent transects were run in 2006. A consulting firm has conducted studies on revegetation techniques at the site. The results of this study and other studies conducted on revegetation will be utilized to move forward with larger scale revegetation efforts at this site. A contractor was hired to collect native seed and a seed farm has been initiated for seed harvest. The seed farm will aid in the implementation of all revegetation projects in the Owens Valley. In addition, a greenhouse was purchased and LADWP has began growing plants for the seed farm and revegetation.
Mitigation Plan Required/Status:	Yes – complete.

Big Pine Northeast Regreening (30 acres)

1991 Owens Valley EIR Impact No. 10-19

Impacts: See description above.

Project Description/
Mitigation Measure:

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.

Mitigation Goals/
Strategies/Actions:

Northeast Big Pine Regreening - See Impact 10-11.

Project Status/
Effectiveness:

Mitigation plans were transmitted to the County in 2004. Comments were received from the County in 2005. The County identified a portion of the project area for land release and sale. In addition, a portion of the Big Pine Ditch system runs through the project area. This reduced the original project area by less than an acre. A letter was sent to Inyo County in February 2008 asking for concurrence on the acreage change but a response has not been received. An archaeological survey of the site was completed as required by the CEQA process. Cultural resources were identified during the survey. These resources will be avoided during implementation. As a consequence, an amended mitigation plan will be submitted for Technical Group approval and CEQA will be completed for the project.

Mitigation Plan
Required/Status:

Yes – in progress.

Big Pine Area Revegetation Project (20 acres)

1991 Owens Valley EIR Impact No. 10-19

Impacts: See description above

Project Description/
Mitigation Measure:

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.

Mitigation Goals/
Strategies/Actions:

To establish a cultivated crop. If irrigation is not feasible, the goal will be to revegetate the site with species found in the surrounding area.

Project Status/
Effectiveness:

The site was fenced in 2007 to eliminate disturbances and encourage natural revegetation. If this area does not revegetate naturally, it will be included with LADWP's ongoing revegetation efforts.

Mitigation Plan
Required/Status:

Yes, if implemented

Big Pine Ditch or Alternate Project

1991 Owens Valley EIR Impact No. 10-19

Impacts: See description above

Project Description/
Mitigation Measure:

The Big Pine Ditch project is planned to be implemented as provided in the Agreement. This area will also be mitigated by the Valley-wide mitigation under the Agreement.

Mitigation Goals/
Strategies/Actions:

Big Pine Ditch - To re-establish a ditch system within the town of Big Pine so that residents in the town could have a surface supply through their properties if desired.

Project Status/
Effectiveness:

The Standing Committee approved procedures and guidelines for implementing the project in 1998. A Mitigated Negative Declaration has been completed. The Inyo/LA Water Agreement has been modified to provide a reliable water supply of 300 acre-feet for the project. The Big Pine Irrigation and Improvement Association has implemented Phase 1, 2 and 3 of the project. LADWP has provided \$99,745 of the \$100,000 committed to the project. After test pumping and identification of a monitoring site for well W415 to supply supplemental water for the ditch system, a contract will be considered for the installation of another well in Bell Canyon to provide additional water for the project. Pipe has been purchased and installed from Big Pine Creek via Mendenhall Ditch to the ditch system headgate. The installation of street crossings, ditches and returns needed for Phase 4 are being completed. In 2008 the Big Pine Ditch System consumed 303 acre-feet of water.

Mitigation Plan
Required/Status:

No

Thibaut/Sawmill Marsh Habitat, LORP Project
(60 miles of river, perhaps more than 1,000 acres)

1991 Owens Valley EIR Impact No. 10-20

Impacts: A significant loss and reduction of marsh vegetation has occurred in the Thibaut-Sawmill area primarily due to surface water diversion, but also due to lowered groundwater from increased groundwater pumping.

Project Description/
Mitigation Measure: Portions of the Lower Owens River Project, including Thibaut Ponds, are in this area. Thus, portions of the impacted area will be mitigated directly, however, for much of the impacted area, mitigation will be in the form of compensation through the Lower Owens River Project's restoration of wetland, meadow, and riparian vegetation. Any significant decreases in vegetation cover or changes in vegetation composition due to groundwater pumping during the recent drought period will be mitigated under the Agreement.

Mitigation Goals
Strategies/Actions: See LORP (Impact 10-14)

Project Status/
Effectiveness: See LORP (Impact 10-14)

Mitigation Plan
Required/Status: No

11 – WILDLIFE

Aquatic Habitat (Klondike Lake)

1991 Owens Valley EIR Impact No. 11-1

Impacts: 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.

Project Description/
Mitigation Measure: 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.

Mitigation Goals/
Strategies/Actions: To create and maintain the lake level to enhance the attractiveness of the facility for recreation as well as improve waterfowl nesting and feeding habitat by providing a firm water supply to the site.

Project Status/
Effectiveness: The Klondike Lake Project is being implemented. The estimated water usage for the project was reduced from 2,200 acft to 1,700 acft with 1,500 acft for conveyance and lake level maintenance, and 200 acft for waterfowl habitat south of the lake. A new diversion was installed and Implementation of the releases for waterfowl habitat south of the lake began in May 2005. Delivery of 200 acft to the south has been more difficult than originally thought. Additional modifications conducted in 2007 included cleaning out accumulated sand in front of the headgate prior to opening the diversion to reduce the amount of sand in the pipe. Crews also removed some vegetation at the pipe outflow area to facilitate flow. Delivery of the 200 acft was still not possible. A total of 96 acft of water was released in 2007. Vegetation and sediment were removed in front of the release pipe, and 89 acft of water was released in 2008.

Mitigation Plan
Required/Status: No

Aquatic Habitat (LORP Project, Farmers, Buckley, Billy, Lone Pine Pond, etc.)

1991 Owens Valley EIR Impact No. 11-1

Impacts: continued from above

Project Description/
Mitigation Measure: see above

Mitigation Goals/

Strategies/Actions: See LORP (Impact 10-14). See Farmers (Impact 10-18), Buckley Ponds - To provide for a warm-water fishery and waterfowl area. Billy Lake - To provide waterfowl habitat in the region. Lone Pine Pond - To create habitat for a warm-water fishery.

Project Status/

Effectiveness: See LORP (Impact 10-14). Farmers Ponds, Buckley Ponds, Billy Lake and Lone Pine Pond are fully implemented and functioning as determined by the goals.

Mitigation Plan

Required/Status: No

12 – AIR QUALITY

Independence Springfield (297 acres),

Independence East Side Regreening (30 acres),

Shepherds Creek Alfalfa Field (198 acres),

Revegetation Project East of Independence (part of Independence Springfield, 40 acres)

1991 Owens Valley EIR Impact No. 12-1

Impacts: Significant impacts on air quality resulting from groundwater pumping during the period of 1970 to 1990 have occurred due to vegetation losses.

Project Description/

Mitigation Measure:

As part of the Independence Pasture Lands 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. Approximately 40 acres remain barren and will be revegetated with native pasture. Under the Shepherd Creek enhancement/mitigation project, approximately 200 acres of poorly vegetated land has been converted to alfalfa. In addition, other areas that have the potential to cause significant adverse impacts to air quality have been identified in Section 10 (above) and will be mitigated as set forth in that section.

Mitigation Goals/

Strategies/Actions:

See Impact 10-11

Project Status/

Effectiveness:

See Impact 10-11

Mitigation Plan

Required/Status:

No

Elevated PM-10 Levels

1991 Owens Valley EIR Impact No. 12-2

Impacts: Increased groundwater pumping could result in elevated PM-10 levels due to vegetation losses.

Project Description/
Mitigation Measure: See mitigation measure for item 12-1, above.

Mitigation Goals/
Strategies/Actions: Minimize impact to less than significant.

Project Status/
Effectiveness: N/A

Mitigation Plan
Required/Status: No

Air Quality Impacts from Loss of Vegetation

1991 Owens Valley EIR Impact No. 12-3

Impacts: Significant impacts to air quality have resulted from the abandonment of irrigated lands to supply the second aqueduct.

Project Description/
Mitigation Measure: Approximately 1,240 acres of formerly irrigated agricultural lands that had not successfully revegetated have been planted with pasture or alfalfa (see mitigation measure 10-11, above). In addition, other areas that have the potential to cause significant adverse impacts on air quality have been identified in Section 10, Vegetation, and will be mitigated as set forth in that section.

Mitigation Goals/
Strategies/Actions: Minimize impact to less than significant.

Project Status/
Effectiveness: N/A

Mitigation Plan
Required/Status: No

16 – ANCILLARY FACILITIES

Vegetation Loss from Construction Activities

1991 Owens Valley EIR Impact No. 16-1 - Vegetation

Impacts: The construction phase of the addition of new recharge facilities could result in vegetation decrease or change.

Project Description/
Mitigation Measure: Provisions of the Agreement will be met. No further mitigation measures are required.

Mitigation Goals/
Strategies/Actions: No significant vegetation decrease or change.

Project Status/
Effectiveness: N/A

Mitigation Plan
Required/Status: No

Air Quality Effects from Construction Activities

1991 Owens Valley EIR Impact No. 16-3 – Air Quality

Impacts: Air quality could be adversely affected by the construction of recharge facilities.

Project Description/
Mitigation Measure: All disturbed areas would be wetted during construction to minimize fugitive dust.

Mitigation Goals/
Strategies/Actions: Minimize impact to less than significant.

Project Status/
Effectiveness: N/A

Mitigation Plan
Required/Status: No

Archaeological Disturbance from Construction Activities

1991 Owens Valley EIR Impact No. 16-5 – Cultural Resources

Impacts: Construction of proposed recharge projects could disturb subsurface archaeological resources, with possible significant impact.

Project Description/
Mitigation Measure: 16-5(a) The proposed recharge facility project locations would be surveyed for cultural resources prior to the initiation of any ground-disturbing project activities associated with the construction of any culverts, ditches, or trenches, once the exact locations of these features are determined. The significance of any site recorded during the survey would be determined through the use of subsurface testing, as appropriate.

Mitigation Goals/
Strategies/Actions: N/A

Project Status/
Effectiveness: N/A

Mitigation Plan
Required/Status: No

Compliance with Archaeological and Preservation Act of 1974

1991 Owens Valley EIR Impact No. 16-5 – Cultural Resources

Impacts: continued from above.

Project Description/
Mitigation Measure:

16-5(b) In accordance with the requirements of 36 CFR 800.11, should a previously unidentified National Register or eligible property be discovered during construction on any and all parts of the project, LADWP will comply with the provisions of the Archaeological and Historic Preservation Act of 1974 by evaluating the resources and implementing mitigation measure as warranted.

Mitigation Goals/
Strategies/Actions:

Minimize impact to less than significant.

Project Status/
Effectiveness:

N/A

Mitigation Plan
Required/Status:

No

Water Quantity Impacts from New Wells in Big Pine Area

1991 Owens Valley EIR Impact No. 16-7 – Water Resources

Impacts: New wells in the Big Pine area would lower groundwater levels, and could result in significant impacts to local private wells.

Project Description/
Mitigation Measure:

Monitoring will be conducted as provided in the Agreement and the Green Book. If pumping of the new production well is shown to cause a significant adverse impact to any private well, the impact will be mitigated as described in the Agreement and in Section 4 of the Green Book.

Mitigation Goals/
Strategies/Actions:

Minimize to less than significant impacts to private wells.

Project Status/
Effectiveness:

N/A

Mitigation Plan
Required/Status:

No

Water Quantity Impacts to Artesian Wells in Laws Area from Operation of Two New Wells

1991 Owens Valley EIR Impact No. 16-9 – Vegetation

Impacts: Operation of the two new wells in the Laws area could cause flow in artesian wells to stop or diminish to a degree that impacts the vegetation dependent on such flow would result.

Project Description/
Mitigation Measure: Existing and new monitoring wells will be used to monitor water levels and vegetation as provided in the Agreement and the Green Book. Groundwater pumping will be managed to avoid causing reductions in the amount of water flowing from these wells such that significant decreases and changes to vegetation would result. If it is projected that such decreases and changes could occur, water will be supplied to avoid such vegetation decreases or changes.

Mitigation Goals/
Strategies/Actions: Avoidance of impact

Project Status/
Effectiveness: N/A

Mitigation Plan
Required/Status: No

Type D Vegetation Impacts Along Fault Zone West of Big Pine from Pumping Big Pine Well BP-1

1991 Owens Valley EIR Impact No. 16-10 – Vegetation

Impacts: Pumping of the Big Pine well BP-1 may impact Type D vegetation along the fault zone west of Big Pine.

Project Description/
Mitigation Measure: As provided in the Agreement and the Green Book, existing and new monitoring sites would be utilized to monitor vegetation, water levels, and soil water. Groundwater pumping would be managed to avoid significant decreases and changes in vegetation.

Mitigation Goals/
Strategies/Actions: Avoidance of impact

Project Status/
Effectiveness: N/A

Mitigation Plan
Required/Status: No

**Reduction or Elimination of Flow from Reinhackle Spring and
Subsequent Loss of Vegetation from New Wells
in the Independence-Symmes-Bairs Area**

1991 Owens Valley EIR Impact No. 16-11 – Vegetation

Impacts: New wells in the Independence-Symmes-Bairs area may reduce or eliminate the flow from Reinhackle Spring and impact vegetation dependent upon flow from the spring.

Project Description/
Mitigation Measure: 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 (above) and contained in the Agreement and the Green Book, will be applied equally to Reinhackle Spring.

Mitigation Goals/
Strategies/Actions: Avoidance of impact.

Project Status/
Effectiveness: N/A

Mitigation Plan
Required/Status: No

Air Quality Impacts from Construction and Maintenance of New Wells

1991 Owens Valley EIR Impact No. 16-13 – Air Quality

Impacts: Air quality could be affected by the construction and maintenance of new wells.

Project Description/
Mitigation Measure: All areas disturbed during construction of the new wells would be wetted during construction to minimize generation of fugitive dust.

Mitigation Goals/
Strategies/Actions: Minimize impact to less than significant.

Project Status/
Effectiveness: N/A

Mitigation Plan
Required/Status: No

Archaeological Disturbance from Construction of 15 New Wells

1991 Owens Valley EIR Impact No. 16-16 – Cultural Resources

Impacts: Construction of 15 new wells could disturb subsurface archaeological resources, with possible significant impact.

Project Description/
Mitigation Measure: 16-16(a) Construction activity at the LP-1, BP-1, and BP-2 sites will be monitored. If subsurface prehistoric archaeological resource evidence is found, excavation or other construction activity in the area will cease and an archaeological consultant would be retained to evaluate findings in accordance with standard practice and applicable regulations. Data/artifact recovery, if deemed appropriate, would be conducted during the period when construction activities are on hold.

Mitigation Goals/
Strategies/Actions: Minimize impact to less than significant.

Project Status/
Effectiveness: N/A

Mitigation Plan
Required/Status: No

**Notification of Proper Authorities (Native American Representatives, Coroner)
if Remains are Discovered**

1991 Owens Valley EIR Impact No. 16-16 – Cultural Resources

Impacts: continued from above

Project Description/
Mitigation Measure: 16-16(b) An appropriate representative of Native American Indian groups and the County Coroner would be informed and consulted if remains are discovered, as required by State law.

Mitigation Goals/
Strategies/Actions: Minimize impact to less than significant.

Project Status/
Effectiveness: N/A

Mitigation Plan
Required/Status: No

**Discharge Rates Could Be Affected in Flowing Wells
on Bishop Cone from Increased Pumping**

1991 Owens Valley EIR Impact No. 16-18 – Water Resources

Impacts: Increased pumping on the Bishop Cone could affect the rate of discharge of flowing wells.

Project Description/
Mitigation Measure: Changes in flow rates from flowing wells will be monitored along with vegetation dependent upon flows from such wells. Groundwater pumping will be managed to avoid significant decreases or changes in vegetation dependent upon water from flowing wells. Water will be provided if necessary to avoid such decreases and changes in vegetation if flows from such wells are diminished due to groundwater pumping.

Mitigation Goals/
Strategies/Actions: Avoidance of impact

Project Status/
Effectiveness: N/A

Mitigation Plan
Required/Status: No

Bishop Cone Pumping Effects on Vegetation

1991 Owens Valley EIR Impact No. 16-19 – Vegetation

Impacts: Increased pumping on the Bishop Cone could adversely affect vegetation due to lowered water levels or reduced flows from flowing wells.

Project Description/
Mitigation Measure: As provided in the Agreement, existing and new monitoring sites would be utilized to monitor vegetation, water levels, and soil water. Groundwater pumping would be managed to avoid significant decrease and change to vegetation and other significant effects on the environment.

Mitigation Goals/
Strategies/Actions: Avoidance of impact

Project Status/
Effectiveness: N/A

Mitigation Plan
Required/Status: No