June 4, 2019
Regular Meeting
Item # 1

Opportunity for Public to Address the Board

California Water Boards State Water Resources Control Board Orders 98-05 and 98-07

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

ORDER WR 98 - 05

In the Matter of Stream and Waterfowl Habitat
Restoration Plans and Grant Lake Operations
and Management Plan Submitted by the
Los Angeles Department of Water and Power
Pursuant to the Requirements of Water Right Decision 1631
(Water Right Licenses 10191 and 10192,
Applications 8042 and 8043)

SOURCES: Lee Vining Creek, Walker Creek, Parker Creek and Rush Creek

COUNTY: Mono

LICENSEE: City of Los Angeles

ORDER REQUIRING STREAM AND WATERFOWL HABITAT RESTORATION MEASURES

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CITATIONS TO THE RECORD

The following notation is used to cite information from the hearing record:

Citations to Hearing Transcript: Citations to the hearing transcript are indicated by a "T" followed by the starting page and line number, followed by the ending page and line number. (Example: T 136:10-136:24.)

Citations to Exhibits: Citations to exhibits in the record are indicated by the letter "R" (to indicate that the hearing involves restoration issues), followed by the abbreviation for the party submitting the exhibit, followed by the number of the party's exhibits, followed by the page number or other location of the information in the exhibit.

Abbreviations Used for Parties

DFG.....California Department of Fish and Game

DPR.....California Department of Parks and Recreation

SLC.....California State Lands Commission

CalTrout.....California Trout, Incorporated

DWP.....City of Los Angeles Department of Water and Power

MLC.....Mono Lake Committee

NAS.....National Audubon Society

PMBP.....People for Mono Basin Preservation

SWRCB.....State Water Resources Control Board

BLM.....United States Bureau of Land Management

USFS.....United States Forest Service

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ORDER REQUIRING STREAM AND WATERFOWL HABITAT RESTORATION MEASURES

BY THE BOARD:

1.0 BACKGROUND

On September 28, 1994, the State Water Resources Control Board (SWRCB) adopted Water Right Decision 1631. Decision 1631 revised the conditions of Licenses 10191 and 10192 which authorize the City of Los Angeles Department of Water and Power (Los Angeles) to divert water from four streams which flow into Mono Lake. The decision established: (1) minimum flow requirements necessary to maintain fish in good condition below Los Angeles' diversion structures; (2) higher flow requirements to be met on a periodic basis for channel maintenance purposes; and (3) detailed water diversion criteria intended to regulate water exports from the Mono Basin in a manner that will result in an eventual long-term average water elevation at Mono Lake of approximately 6,392 feet. The conditions adopted in Decision 1631 were established to protect fish and other public trust resources in the Mono Basin while continuing to allow diversion of some water for municipal use.

No party sought reconsideration or judicial review of Decision 1631. The conditions established in Decision 1631 are leading to significant restoration and recovery of fish habitat, waterfowl habitat, and other public trust resources in the Mono Basin.[1] Decision 1631 resolved the major controversies relating to Los Angeles' diversion of water from the Mono Basin, but the record before the SWRCB in 1994 was not sufficient to determine what additional restoration measures should be required in order to promote recovery of streams and waterfowl habitat. Therefore, Decision 1631 directed Los Angeles to evaluate potential restoration measures and to submit proposed plans for restoration of Rush Creek, Lee Vining Creek, Parker Creek, and Walker Creek and restoration of waterfowl habitat in the Mono Basin. In view of the effect of Grant Lake on stream flows and water exports from the Mono Basin, Decision 1631 also required that the stream restoration plan include an element addressing the operation and management of Grant Lake.

Los Angeles engaged in a cooperative process with parties designated in Decision 1631 to develop the required restoration plans, but some proposals remain in dispute. The SWRCB conducted eight days of hearing on the restoration plans ending on May 7, 1997. The focus of the hearing was to determine the extent to which the restoration plans comply with the requirements of Decision 1631 and to determine what, if any, changes are needed. Final legal briefs were submitted by interested parties in July 1997.

This order begins with a brief review of the findings and requirements of Decision 1631 regarding stream and waterfowl habitat restoration and the process through which the restoration plans were developed. The order then addresses the evidence regarding various proposed restoration measures, as well as a proposed settlement agreement submitted by Los Angeles and some of the other parties near the end of the hearing.

[1] Decision 1631 found that an average water elevation at Mono Lake of 6,392 feet will "protect nesting habitat for California gulls and other migratory birds, maintain the long-term productivity of Mono Lake brine shrimp and alkali fly populations, maintain public accessibility to the most widely visited tufa sites in the Mono Lake State Tufa Reserve, enhance the scenic aspects of the Mono Basin, lead to compliance with water quality standards, and reduce blowing dust in order to comply with federal air quality standards." (Decision 1631, pp. 194 and 195.)

Based on our review of the evidentiary record and the requirements of Decision 1631, this order requires implementation of stream restoration measures which generally are consistent with the proposed settlement agreement. This order also requires a waterfowl and waterfowl habitat monitoring program and other specified measures to promote waterfowl habitat restoration. For the reasons discussed in Sections 6.0 through 6.5 below, this order does not require funding of a waterfowl habitat restoration foundation as proposed by some of the parties.

2.0 FINDINGS AND REQUIREMENTS OF DECISION 1631 REGARDING RESTORATION PLANS

The SWRCB's prior findings regarding the stream and waterfowl habitat restoration plans, and the evaluation criteria governing our review of the plans, are summarized in Sections 2.1 through 2.4 below.

2.1 Prior SWRCB Findings Regarding Stream Restoration Plans

Decision 1631 concluded that restoration of continuous flows as specified for each of the affected streams was by far the most important step needed to restore and maintain the fisheries that existed prior to Los Angeles' diversions. The decision also concluded that providing channel maintenance and flushing flows for each stream will help to maintain conditions that benefit the fishery and will promote the recovery of adjacent riparian areas. (Decision 1631, p. 76.) The decision includes a number of specific findings regarding potential restoration measures for each of the four streams from which Los Angeles diverts water. (Decision 1631, pp. 37, 38, 45, 46, 52, 53, 74 and 75.) The SWRCB's findings regarding the need for additional stream restoration measures are summarized as follows:

> "The evidence also establishes the need for a number of other measures to help restore and protect fish habitat in the four streams such as removal of livestock grazing, restriction of vehicular access, reopening historic side-channels and other measures specified in the findings regarding each specific stream. Those measures should be addressed in the stream restoration plan which LADWP is required to develop and submit in accordance with the amended terms of its water right licenses as specified at the end of this decision." (Decision 1631, p. 76.)

2.2 Prior SWRCB Findings Regarding Waterfowl Habitat Restoration Plans

Decision 1631 found that the loss of open water habitats and fresh water sites around Mono Lake due to water diversions by Los Angeles coincided with the decline in migratory waterfowl populations at Mono Lake, that the lake probably supported several hundred thousand ducks during the fall historically, and that the current (i.e., 1994) habitat probably supports a small fraction of historic numbers. (Decision 1631, p. 117.) The decision states:

> "Restoration of pre-diversion waterfowl habitat would permit substantial increases in migratory waterfowl use at Mono Lake. The actual numbers of waterfowl which would use these restored habitats, however, is unknown and is dependent in part upon the restoration of other similarly degraded habitats in the interior portion of the Pacific Flyway and annual fluctuations in waterfowl reproduction and populations. Maximum restoration of waterfowl habitat in the Mono Basin would require maintaining a water level of 6,405 feet."

> "In view of the City of Los Angeles' need for water for municipal use . . . and in view of the competing public trust uses which would not best be served by a water level of 6,405 feet, this decision does not regulate LADWP's water diversions in a manner which would restore the maximum amount of waterfowl habitat. Increasing the water level to an average of 6,392 feet as called for in this decision, however, would allow for restoration of some of the lost habitat. Additional waterfowl habitat could be restored through other restoration measures identified in the record." (Decision 1631, pp. 117 and 118.)[2]

Decision 1631 goes on to discuss the "physical solution doctrine" as a basis for requiring Los Angeles to undertake waterfowl habitat restoration measures as part of a physical solution which would allow for continued diversion of water for municipal use. The decision states that, with the

[2] The SWRCB selected a target average water elevation of 6,392 feet following a balancing of competing public trust uses, as well as consideration of water use for municipal purposes. Decision 1631 specifically recognizes that "[a] lake level of 6,405 feet would not be consistent with the objectives of preserving public access to the most frequently visited tufa sites and continuing to make tufa structures at Mono Lake widely and conveniently accessible to public view." (Decision 1631, p. 154.) In view of the fact that a target lake level of 6,405 feet was rejected based in part upon the desire to protect frequently visited tufa sites, and in view of the uncertainty about waterfowl populations in the interior portion of the Pacific Flyway, Decision 1631 does not require Los Angeles to fully mitigate for the difference between the amount of waterfowl habitat expected at a water level of 6,405 feet and the amount expected to exist at the target lake elevation of 6,392 feet.

exception of the natural restoration which will occur due to restored flows and a rising lake elevation, the record in 1994 was insufficient to specify the waterfowl habitat restoration measures to be undertaken. The decision concludes that Los Angeles should be required to consider various waterfowl habitat restoration measures as part of the restoration plans required under the decision. (Decision 1631, p. 118.) The decision states:

> "The SWRCB concludes that LADWP should be required to consult with DFG and other interested parties and analyze potential feasible waterfowl restoration projects which are consistent with the lake level established in this decision, consistent with the regulations governing the Mono Basin National Scenic Area, and which could avoid or properly mitigate any disturbance of archeological resources in the Mono Basin. LADWP's evaluation of potential waterfowl habitat restoration projects should focus on lake-fringing wetland areas." (Decision 1631, pp. 118 and 119.)

Decision 1631 does not require Los Angeles to mitigate for all waterfowl habitat lost as a result of previously authorized water diversions. Rather, Decision 1631 cites the "physical solution doctrine" as the basis for requiring Los Angeles to consider measures to mitigate for at least some of the loss of waterfowl habitat that is expected to continue as a result of continuing water diversions. Although pre-project (i.e., pre-1941) conditions provide a helpful reference point, Decision 1631 does not require that Los Angeles undertake restoration measures aimed at restoring pre-project conditions. The specific criteria governing the SWRCB's evaluation of proposed restoration measures are discussed in Section 2.4 below.

2.3 Prior Findings Regarding Grant Lake Operations and Management Plan

The inflow, outflow and quantity of water in storage at Grant Lake substantially affect the amount of water available for instream flows and channel maintenance flows in Rush Creek, as well as the amount of water available for export from the Mono Basin. In view of the importance of Grant Lake to stream flows and water diversions in the Mono Basin, Decision 1631 specifically requires that Los Angeles include a Grant Lake operations and management plan as an element of its stream restoration plan. (Decision 1631, p. 205.) Due to the complexity of Grant Lake operations, Los Angeles addressed the subject of Grant Lake operations and management in a separate document. As recognized in the Los Angeles plan and the proposed settlement

agreement, Grant Lake operations must be considered in conjunction with downstream restoration measures.

2.4 Requirements and Evaluation Criteria Governing Restoration Plans Required by Decision 1631

The general requirements and evaluation criteria governing the stream and waterfowl habitat restoration plans are stated on page 204 of Decision 1631 as follows:

> "Licensee shall prepare and submit to the SWRCB for approval a stream and stream channel restoration plan and a waterfowl habitat restoration plan, the objectives of which shall be to restore, preserve and protect the streams and fisheries in Rush Creek, Lee Vining Creek, Walker Creek, and Parker Creek, and to help mitigate for the loss of waterfowl habitat due to the diversion of water under this license. The plans shall include consideration of measures to promote restoration of the affected streams and lake-fringing wetlands which are functionally linked to the streamflows and lake levels specified in this order. The restoration plans shall include elements for improving instream habitat for maintaining fish in good condition. The plans are subject to technical and financial feasibility, reasonableness, and adequacy of the measures proposed to achieve the stated objectives. The restoration plans shall identify the specific projects to be undertaken, the implementation schedule, the estimated costs, the method of financing, and estimated water requirements."

The specific requirements and the evaluation criteria for the stream and waterfowl habitat restoration plans required by Decision 1631 are set forth on pages 204 through 211 of the decision. Among other requirements, the plans are required to include a method for monitoring results and progress of proposed restoration projects. In addition, Los Angeles was directed to "emphasize measures that have minimal potential for adverse environmental effects." (Decision 1631, pp. 206 and 207.)

3.0 PREPARATION OF RESTORATION PLANS SUBMITTED BY CITY OF LOS ANGELES

The stream and waterfowl restoration plans submitted to the SWRCB are the result of a lengthy process with repeated opportunities for input from the California Department of Fish and Game (DFG), the California State Lands Commission (SLC), the California Department of Parks and

Recreation (DPR), the United States Forest Service (USFS), the National Audubon Society (NAS), the Mono Lake Committee (MLC), and California Trout, Inc. (CalTrout). Los Angeles also used information provided by other parties, including consultants with expertise in stream and waterfowl habitat restoration. Following completion of draft restoration plans, Los Angeles circulated the draft plans for review and comment by interested parties. Los Angeles revised the plans in response to comments from interested parties and then submitted the following documents dated February 29, 1996, to the SWRCB.

(1) Executive Summary for the Stream Restoration, Grant Lake Operations and Management, and Waterfowl Habitat Restoration Plans;

(2) Stream and Stream Channel Restoration Plan;

(3) Stream and Stream Channel Restoration Plan Appendices;

(4) Grant Lake Operations and Management Plan;

(5) Grant Lake Operations and Management Plan Appendices;

(6) Waterfowl Habitat Restoration Plan; and

(7) Comments and Response to Comments on the Draft Stream Restoration, Grant Lake Operations and Management, and Waterfowl Habitat Restoration Plans.

Interested parties were allowed until April 8, 1996, to submit written comments to the SWRCB regarding the restoration plans. Based on the extensive comments received, the SWRCB initially scheduled a hearing on the proposed plans for July 29 and 30, 1996. At the request of DPR, DFG, USFS, MLC, NAS, and CalTrout, the hearing was postponed to provide additional time for those parties to attempt to resolve contested issues with Los Angeles. The hearing was rescheduled to October 9 and 10, 1996, but postponed again at the joint request of DPR, MLC, NAS, CalTrout and Los Angeles in order to provide a further opportunity for resolution of differences.

Disagreements over the restoration plans were not fully resolved and the hearing began on January 28, 1997. The SWRCB conducted six days of evidentiary hearings between January 28 and February 26, 1997, at which time the hearing was recessed at the request of several parties who expressed confidence that they could reach agreement on a proposed settlement. After the SWRCB was notified that a proposed settlement was reached by some, but not all, of the parties to the hearing, the hearing was resumed on May 6, and completed on May 7, 1997.

At the resumption of the hearing, counsel for Los Angeles presented a proposed settlement agreement dated March 28, 1997, reached by representatives of some of the parties to the proceeding. (T 1514:9-1518:21.) The settlement agreement was marked for identification as Los Angeles Exhibit R-DWP-68, but was not offered into the evidentiary record. A second agreement, the Mono Basin Waterfowl Habitat Restoration Foundation Conceptual Agreement, was referred to in the proposed settlement agreement and also submitted and marked for identification. (R-DWP-68A.) No testimony was offered in support of the proposed agreements. Rather, the agreements were submitted on behalf of the signatories as a proposed modification of Los Angeles' previously submitted restoration plans, with the understanding that the parties would address the proposed settlement in post-hearing briefs. (T 1518:2-1521:9.).

The parties were granted the opportunity to submit closing briefs and reply briefs. The final day for submission of legal briefs was July 17, 1997. The briefs addressed the evidence presented at the hearing as well as the proposed settlement agreement.

The preparation and review of stream and waterfowl habitat restoration proposals were parts of a lengthy process extending from adoption of Decision 1631 on September 24, 1994, to the present. As discussed in Section 5.4 below, that process successfully resolved most of the issues concerning the stream restoration work to be undertaken by Los Angeles in a manner that is generally consistent with Decision 1631 and which has widespread support among the parties to this proceeding.

As discussed in Section 6.3 below, the proposed settlement does not define most of the specific waterfowl habitat projects which would be undertaken pursuant to the agreement. Rather, having completed a multi-year planning process pursuant to the provisions of Decision 1631, the parties to the suggested settlement now propose to initiate a new planning process through which specific waterfowl habitat restoration measures would be determined at a future time by a newly created waterfowl habitat restoration foundation. In contrast to the broad support for the stream restoration measures in the proposed settlement, the proposal regarding waterfowl habitat restoration met considerable opposition from local citizens and organizations, the Mono County Board of Supervisors, and various other governmental officials and employees.

4.0 PARTICIPANTS IN HEARING

Los Angeles presented the restoration plans and related documents described in Section 3.0. Los Angeles also presented testimony in support of approving the restoration plans. Following the recess of the hearing on February 26, 1997, and negotiations among some of the parties, Los Angeles joined with several other parties to request that the SWRCB approve the March 28, 1997, proposed "Mono Lake Settlement Agreement" as a modification of the previously submitted restoration plans.

DFG, SLC, DPR, MLC, NAS, CalTrout, USFS, and Richard Ridenhour submitted testimony and exhibits regarding various aspects of the initial restoration plans. Those participants later joined in requesting that the SWRCB adopt an order based on the March 28, 1997, proposed settlement agreement.[3] Although DFG is a signatory to the proposed settlement agreement, DFG's primary witnesses testified about numerous problems with the approach to waterfowl habitat restoration under the provisions of the proposed settlement. (See Section 6.3 below.)

The United States Bureau of Land Management (BLM) introduced substantial evidence about the importance of the wildlife and other resources dependent upon the flows in Wilson Creek which

[3] CalTrout is a party to the proposed settlement, but is not a signatory to the Mono Basin Waterfowl Habitat Foundation Conceptual Agreement. The signature page of the "conceptual agreement" indicates that the agreement was "approved as to form" by CalTrout. (R-DWP-68A.)

could be adversely affected by proposed waterfowl habitat restoration measures for Mill Creek as discussed in Section 6.4.2.

The People for Mono Basin Preservation (PMBP) participated in the hearing on behalf of many Mono County residents and others who oppose aspects of the waterfowl habitat restoration plan submitted by Los Angeles and the approach to waterfowl habitat restoration described in the proposed settlement agreement. PMBP is primarily concerned about protection of the resources currently dependent upon flows in Wilson Creek. As discussed in Section 6.4.2, PMBP opposes restoring higher flows to provide waterfowl habitat along Mill Creek at the expense of the environmental, fishery, wildlife, and other values served by the current level of flow in Wilson Creek. PMBP also opposes payment of $3.6 million to a waterfowl habitat restoration foundation under the provisions of the Waterfowl Habitat Restoration Foundation Conceptual Agreement. (R-DWP-68A.) PMBP supports waterfowl habitat restoration in the Rush Creek bottomlands and introduced evidence regarding other potential waterfowl habitat restoration measures. PMBP did not offer evidence regarding stream restoration proposals for Rush Creek, Lee Vining Creek, Walker Creek or Parker Creek, but the group expressed general support for the stream restoration measures identified in the proposed settlement agreement.

A representative of Arcularius Ranch and Inaja Land Company participated in the early stage of the hearing prior to introduction of the settlement agreement, but did not participate when the hearing resumed on May 6, 1997. Correspondence from the Arcularius Ranch representative recommends that none of the flow modifications undertaken for stream restoration purposes should supersede or interfere with the provisions of Decision 1631 regulating the release of water from the Mono Basin into the Upper Owens River.[4]

[4] Mr. Frank Hazleton submitted a written closing statement on behalf of Arcularius Ranch and Inaja Land Company which requests that any further SWRCB orders be considered "in light of the base and minimum commitments extended to the Upper Owens River through Decision 1631 and the Grant Lake Operations and Management Plan as submitted by LADWP in February, 1996."

Counsel for Arnold Beckman submitted testimony and other evidence relating to the water rights of the Conway Ranch under the 1914 Mill Creek Decree.[5] The water rights which attach to the Conway Ranch could be relevant with respect to future changes in the use of water rights on Mill Creek. However, the present proceeding does not involve a proposal by either Los Angeles or Mr. Beckman to dedicate the Conway Ranch water rights to instream flows or other purposes related to restoration of Mill Creek. Therefore, based on the understanding that the SWRCB's decision on the waterfowl habitat restoration plan submitted by Los Angeles would not affect the status of the Conway Ranch water rights, counsel for Mr. Beckman withdrew from the proceeding.[6]

5.0 STREAM RESTORATION PLAN AND GRANT LAKE OPERATIONS PLAN

Sections 5.1 through 5.5 below address the stream restoration plan and related documents submitted by Los Angeles, the modifications to the Los Angeles plan in the proposed settlement agreement, and the SWRCB's analysis and conclusions regarding restoration proposals for Rush Creek, Lee Vining Creek, Parker Creek and Walker Creek.[7]

5.1 Stream Restoration Plan Submitted by Los Angeles

The stream restoration plan and related materials submitted by Los Angeles are the Stream and Stream Channel Restoration Plan (R-DWP-16), the Appendix to Stream and Stream Channel Restoration Plan (R-DWP-17), the Grant Lake Operations and Management Plan (GLOMP) (R-DWP-18), the Appendix to Grant Lake Operations and Management Plan (R-DWP-19), and the Comments and Responses to Comments on the Draft Stream Restoration, GLOMP, and

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[5] *Hydro Electric Co.* v. *J. A Conway, et al.*, (1914) Mono County, Superior Court No. 2088.

[6] Future proposals to change the use of the Conway Ranch water rights would fall within the Mono County Superior Court's jurisdiction over the Mill Creek adjudication or within the jurisdiction of the SWRCB pursuant to Water Code section 1707.

[7] As discussed in Sections 6.1 through 6.3 below, various parties have also proposed measures intended to restore the lower portion of Mill Creek at the north end of the Mono Basin based on the rationale that restoration of Mill Creek would result in more waterfowl habitat. Since Los Angeles diverts no water from Mill Creek under Licenses 10191 and 10192, it was not required to consider restoration proposals for Mill Creek as part of the stream restoration plan required by Decision 1631.

Waterfowl Habitat Restoration Plans (R-DWP-21). Los Angeles also submitted two documents describing its proposed plan for monitoring the recovery of the four Mono Basin streams from which it diverts water. (R-DWP-22 and R-DWP-23.) Los Angeles presented detailed written and oral testimony in support of the stream restoration proposals described in its planning documents. (See e.g., R-DWP-24 through R-DWP-32.)

The stream restoration program proposed by Los Angeles establishes the overall goal of developing "functional and self-sustaining stream systems with healthy riparian ecosystem components." The program proposes to "restore the stream systems and their riparian habitats by providing proper flow management in a pattern that allows natural stream processes to develop functional, dynamic, and self-sustaining stream systems." The stream restoration plan depends primarily on providing high seasonal flows which equal or exceed the channel maintenance flow requirements established in Decision 1631 for all types of years.[8] (R-DWP-16, p. vi.)

In addition, the plan proposes twelve other restoration measures to help "jumpstart" the recovery that is occurring due to the restoration of flows in the four streams and the additional restoration expected to occur as a result of the higher seasonal flows. The measures include installation of large woody debris in Rush Creek and Lee Vining Creek, rewatering additional channels in Rush Creek, a limited planting program in the riparian areas of the four streams, sediment passage facilities at diversion structures (at Lee Vining, Parker and Walker Creeks), flood flow contingency plans to protect Highway 395, limited vehicular access to sensitive areas, a livestock grazing moratorium for 10 years after entry of Decision 1631, possible installation of fish screens on irrigation diversions based on consultation with DFG, removing bags of gravel which were previously placed in Lee Vining Creek as part of previous restoration efforts, removing limiter

[8] Based on evidence presented by DFG, Decision 1631 established specified flow requirements for channel maintenance purposes in each of the four streams from which Los Angeles diverts water. The stream restoration plan submitted by Los Angeles proposes higher short-duration flows for the purpose of imitating the high seasonal flows that ordinarily would occur under natural conditions. The higher flows proposed in the Los Angeles plan are also referred to as "channel maintenance flows." In order to avoid confusion with the channel maintenance flow requirements established in Decision 1631, this order refers to the periodic high flows which are proposed for stream restoration purposes as "stream restoration flows."

logs and modifying channel entrances in Lee Vining Creek,[9] supporting the California Transportation Department in rehabilitation of the Parker Plug area on Parker Creek, and rehabilitation of the Mono Return Ditch and Lee Vining Conduit in order to allow for providing higher channel maintenance flows to Rush Creek. The plan contains an evaluation of various other measures which Decision 1631 required Los Angeles to consider and explains why those measures are not recommended. In addition, Los Angeles proposed a detailed monitoring plan to evaluate stream recovery.

The stream restoration plan contains a detailed description of the work to be done, the proposed schedule for undertaking various projects and the cost of each proposed restoration measure. The estimated cost of the stream restoration work proposed by Los Angeles is $2 million. (R-DWP-16, pp. vii and viii.)

Los Angeles presented testimony from experts with experience in stream restoration and fishery biology in support of its proposed restoration plan. The expert witnesses presented by Los Angeles included Dr. William Trush and Mr. Christopher Hunter who had previously participated in portions of the interim restoration work undertaken by the former Restoration Technical Committee (RTC) at the direction of the Superior Court. (R-DWP-6, R-DWP-7, R-DWP-31.) Both Dr. Trush and Mr. Hunter supported the concept of promoting stream restoration primarily through providing appropriate flows to aid the natural recovery of the stream and adjoining area. Both also recognized that high stream flows which occurred prior to the 1997 hearing washed out much of the structural stream restoration work that had been attempted in previous years. (T 326:12-329:9.) Dr. Trush testified that even if the required flows were insufficient to affect channel morphology, he could not "recommend structures because it wouldn't make any sense; they would go away." (T 328:7-328:22.)

[9] "Limiter logs" are logs that were artificially placed in the stream channel of Lee Vining Creek as part of the interim stream restoration work undertaken by the Restoration Technical Committee which was formed under the authority of the Superior Court. Use of limiter logs and other structural or mechanical approaches to stream restoration of the Mono Basin streams were less successful than anticipated when those measures were undertaken.

Los Angeles presented testimony from several other witnesses in support of a flow-based approach to stream restoration. Dr. Robert Beschta and Dr. Boone Kauffman testified that some of the well-intended human interventions to promote stream restoration undertaken in recent years actually had detrimental effects on the establishment of vegetation and improvement of channel morphology. (T 68:3-68:25; T 83:1-83:15.) Dr. Beschta and Dr. William Platts agreed that providing appropriate flows and control or removal of grazing in riparian areas are the most desirable elements of a stream restoration program. (T 69:16-69:19; T 331:12-332:18.) Although Dr. Platts recognized the need for sediment bypass structures and monitoring, he testified that providing proper flows and land management are the essential elements of stream restoration. Dr. Platts described various other restoration proposals for the streams under consideration as things which are "done to make people feel good," not necessarily to help the fish populations. (T 332:5-332:18.)

Dr. Kauffman testified that the re-establishment of willows, cottonwoods and riparian vegetation along the Mono Basin tributaries is among the highest that he has seen on any riparian ecosystem in the Western United States. (T 75:1-76:20.) Biologist Brian Tillemans presented extensive testimony and photographic evidence regarding the recovery of the Mono Basin streams following the restoration of flows and the imposition of a grazing moratorium. (R-DWP-25: R-DWP-37 through R-DWP-62; and T 47:1-61:15.) Mr. Tillemans testified that he is confident that the Los Angeles stream restoration proposals will produce high quality streams and an overall fishery that is better than what existed before Los Angeles began its Mono Basin diversions. (T 49:4-49:14.) Dr. Beschta and Dr. Platts also testified that they believe the restoration program will result in better stream conditions than existed in 1941. (T 103:2-104:15.)

5.2 Proposed Settlement Agreement Regarding Stream Restoration Projects

The proposed settlement agreement calls for Los Angeles to implement its stream and stream channel restoration plan with certain specified changes. The changes are summarized as follows:

(1) The "channel maintenance flows" proposed in the Los Angeles plan are increased for specified water year types based upon flow recommendations in a February 13, 1996

memorandum of the "ad hoc flow committee" until such time as the SWRCB determines that the stream restoration program is complete.[10]

(2) Los Angeles is to implement its proposed stream monitoring program under the direction of Dr. Trush, Mr. Hunter, and other independent scientists to be agreed upon by the parties to the proposed settlement. The monitoring team is to perform a number of tasks including: (a) making recommendations on flows needed for restoration of Rush Creek below the Department of Water and Power return ditch and the need for a Grant Lake bypass to achieve those flows; (b) submitting reports evaluating the results of the monitoring program and recommending any appropriate changes; and (c) making a recommendation to the SWRCB that the stream restoration program is complete. The proposed settlement also provides for establishing quantified criteria for determining when monitoring of stream restoration and recovery can be terminated.

(3) Los Angeles is to upgrade the Rush Creek Return Ditch as proposed in its plan, but agrees not to raise the cost of that upgrade as a reason in the future for not constructing a Grant Lake bypass if such a facility is needed to provide appropriate stream flows.

(4) Los Angeles will implement its plan for large woody debris and will thereafter add large woody debris to Rush and Lee Vining Creeks on an opportunistic basis, based on the recommendations of the monitoring team.

(5) If channels opened for stream restoration purposes become closed, Los Angeles will follow the case-by-case recommendation of the monitoring team regarding reopening of any closed channels.

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[10] As explained in Section 5.3.1 below, the flows provided for stream restoration purposes may differ from flows needed for channel maintenance on a long-term basis. The proposed settlement uses the term "channel maintenance flow" to describe both the higher flows proposed in the settlement agreement for stream restoration, and the long-term channel maintenance flows established in Decision 1631.

(6) Los Angeles will hire experts agreeable to the parties to the proposed settlement to analyze and design sediment bypass systems at diversions on Walker, Parker, and Lee Vining Creeks. The SWRCB will be asked to resolve any disagreements regarding construction of recommended sediment passage facilities.

(7) Los Angeles will comply with applicable law regarding fish passage, but need not include fish passage in the stream restoration plan.

(8) Los Angeles will implement its February 29, 1996, Grant Lake Operations and Management Plan with certain specified changes.

(9) Existing facilities for collecting flow data will be retrofitted to make data available "on a same day basis on a web site."

The proposed settlement is based on the anticipation that the SWRCB will enter an order consistent with the agreement. The proposed settlement represents a generally successful effort among the signatories to resolve their remaining differences regarding the stream restoration plan submitted by Los Angeles. The stream restoration plan, as modified by the proposed settlement agreement and the provisions of this order, provides a workable basis for compliance with the applicable provisions of Decision 1631. As discussed in Section 5.4 below, the provisions of this order requiring implementation of stream restoration measures are structured in the manner necessary to maintain appropriate SWRCB enforcement authority over the licensee.

5.3 Analysis of Stream Restoration Proposals

Experience in recent years has shown it is impossible to control high flows sufficiently to establish a successful Mono Basin stream restoration program which places a heavy reliance on structural "improvements" to stream channels. (T 327:6-329:9) Therefore, the SWRCB agrees with the conclusion reflected in Los Angeles' stream restoration plan and the proposed settlement agreement that it is preferable to promote stream restoration and recovery through providing

appropriate flows and sound land management. The modifications to the stream restoration plan which are called for in the proposed settlement agreement are addressed below.

5.3.1 *Higher Peak Flows to Promote Stream Restoration and Recovery*

The stream restoration plan and the settlement proposal both call for providing higher peak flows to help promote recovery of the streams and stream channels.[11] The flows now proposed are higher than the channel maintenance flows which were established in Decision 1631 based on the testimony presented by DFG in 1994. In addition to the fishery flow and channel maintenance flows established in Decision 1631, the decision provides that Los Angeles' diversions from the Mono Basin are subject to additional limitations up until the time the water elevation in Mono Lake reaches 6,391 feet. Therefore, until that time, there will frequently be more water in the four affected streams than would be needed solely to comply with the instream flow requirements and the channel maintenance flows required under Decision 1631.[12]

Up until the time that the water level in Mono Lake reaches 6,392 feet, the proposed settlement agreement calls for higher flows for stream restoration in Rush Creek as specified in a February 13, 1996 memorandum, except in dry years, and except when the higher flows cannot be provided without reducing water exports from the Mono Basin during dry/normal and normal years. The settlement agreement would also provide for specified higher flows for stream restoration purposes in all four streams between the time the lake reaches 6,392 feet and when the stream restoration program is determined to be "complete" by the SWRCB. The higher flows

[11] Depending upon the stream and the water year type, the higher flows for stream restoration purposes called for in the proposed settlement agreement are often higher than the flows called for in the stream restoration plan and Grant Lake Operations and Management Plan submitted by Los Angeles.

[12] Decision 1631 found that the water elevation of Mono Lake was expected to reach 6,391 feet in approximately 18 to 28 years depending upon future hydrology. (Decision 1631, P. 158.) If the water level does not reach 6,391 feet by September 28, 2014, Decision 1631 calls for the SWRCB to consider if further revisions to the conditions in Los Angeles' licenses are appropriate. Decision 1631 sets water diversion criteria intended to result in a long-term average water elevation in Mono Lake of 6,392 feet. In the event the water elevation at Mono Lake has reached 6,391 feet by 2014, Decision 1631 does not require a further hearing.

during this period would apply in extreme wet years, wet years, and wet/normal years.[13] During all other years, the proposed settlement agreement calls for stream restoration flows based upon the provisions of the Grant Lake Operation Management Plan. The proposed settlement agreement also states that upon completion of the stream restoration program, it may be necessary to modify the channel maintenance and flushing flow requirements established in Decision 1631.

Dr. Platts testified that there may be a difference regarding the level of flows needed to help restore a degraded stream system and the flows needed to maintain the habitat once the stream system has been reestablished. Dr. Platts supports higher peak flows as a means of promoting stream restoration, but recommends revisiting the subject of channel maintenance flows later on in the stream restoration and recovery process. (T 205:21-206:18.) Dr. Trush also recognized a distinction between flows that are needed for channel maintenance and flows that are needed for restoration of the adjoining floodplain. (T 467:18-469:17.) As discussed in Section 5.1, the record of recent high flows in the Mono Basin indicates that the ability to control peak flows in wet years is limited. Thus, in some years, higher flows of the type presently recommended for stream restoration purposes may occur whether required or not.

In view of the evolving recommendations of various experts regarding the level of flows needed for channel maintenance and stream restoration purposes, it would be unwise to revise the long-term channel maintenance flow requirements established in Decision 1631 at the present time. In addition, the SWRCB does not have sufficient evidence before it to determine the impacts on lake level of meeting the settlement agreement flows on a long-term basis.[14] However, based on the

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[13] The water year classifications referred to in the proposed settlement are based on the classifications set forth in the Grant Lake Operation and Management Plan. (R-DWP-18, p. 88, Table T.) During the period before Mono Lake reaches 6,392 feet, the primary effect of the stream restoration flows is expected to be on the way in which available water is released in order to promote channel recovery and restoration, rather than on the amount of water available for export.

[14] Decision 1631 called for development of stream and waterfowl habitat restoration proposals which are consistent with the streamflows and lake levels established in that decision. (Decision 1631, p. 204.) Any long-term revision of the channel maintenance flow requirements established Decision 1631 would require an analysis of the effects of that revision on the water level of Mono Lake, public trust resources in the Mono Basin, and the quantity of water available for diversion under Licenses 10191 and 10192.

evidence presented regarding the anticipated benefits of higher spring peaking flows for stream restoration purposes, and the willingness of Los Angeles to provide those flows, the SWRCB concludes that it would be reasonable to provide the higher flows called for in the settlement agreement on an interim basis subject to the provisions of this order. The subject of stream restoration flows can be reviewed by the SWRCB in the future with the benefit of the additional information which will be developed through monitoring stream restoration and recovery in the Mono Basin.

5.3.2 *Stream Monitoring*

Decision 1631 provided that the monitoring program proposed in the stream restoration plan shall identify how results of "restoration activities will be distinguished from naturally occurring changes." (Decision 1631, p. 207.) In those instances where artificial replanting is undertaken or where "structural measures" such as placement of woody debris are undertaken, it may be possible to distinguish changes due to intentional restoration activities from "naturally occurring changes." However, in the case of a restoration program which relies primarily on "natural changes" related to increased flows, it generally will not be possible to distinguish the results of restoration activities from naturally occurring changes. (T 153:16-155:3.)

As discussed in Section 5.1 above, the goal of the stream restoration program proposed by Los Angeles is to develop "functional and self-sustaining stream systems with healthy riparian ecosystem components." (R-DWP-16, p. vi.) The proposed settlement calls for implementation of the stream monitoring program proposed by Los Angeles with specified modifications, including establishment of a monitoring team under the direction of Dr. Trush and Mr. Hunter and such other independent scientists as are agreed upon by the parties. The monitoring team is to evaluate and make recommendations regarding various subjects related to stream restoration. The settlement agreement identifies a number of factors to be considered for determining when stream restoration monitoring may be discontinued.

Several experts on stream and fishery restoration testified in support of monitoring the restoration and recovery of the four affected streams. Their testimony highlights the difficulty in attempting

to specify criteria for establishing when restoration should be considered complete. Dr. Kauffman testified that ecological restoration is an ongoing process which is not completed at any one point in time, but the restoration plan proposed by Los Angeles "sets the ecosystem in the right trajectory for a goal of naturally functioning ecosystems" similar to predisturbance conditions. (T 108:14-108:23.) Dr. Trush testified that the scientists on the former RTC had difficulty in trying to define endpoints for stream restoration on Lee Vining Creek, and decided to "replace the idea of an end product, and endpoint, with a process, with the idea that the channel can be made to react and function alluvially. . . ." (T 129:17-131:6; 155:4-155:23.) Mr. Hunter agreed with Dr. Trush about the difficulty of establishing quantitative stream restoration goals. He explained the RTC:

> ". . . spent a lot of time trying to do that, and it just didn't work out very well. There just wasn't the pre-1941 data to give us anything quantitative for restoration goals. That is why we shifted gears on this monitoring plan to monitor the processes that actually are going to create the habitat that will be utilized by fish.
>
> "In the long run, this is probably a much better approach, to make sure that those processes are actually happening that create fish habitat or create seedbeds for riparian vegetation . . . ." (T 134:1-136:1.)

Despite contrary testimony of various experts, the proposed settlement agreement calls for establishment of quantified criteria for determining when stream restoration will be considered complete. The information collected regarding the specified "termination criteria" will provide helpful information regarding recovery of the four streams. In accordance with the intention of the parties to examine certain characteristics of each stream, this order provides that the stream restoration monitoring team employed by Los Angeles shall report on a number of specified factors relevant to the condition of the four affected streams. However, based on the extensive expert testimony regarding restoration of the four streams degraded by Los Angeles' past water diversions, the SWRCB concludes that, in this instance, more general criteria should be used as

the basis for determining when the stream restoration program can be regarded as complete or when stream restoration monitoring may be terminated.

Based on the record before us, this order provides that the SWRCB's eventual determination of when the stream restoration monitoring program may be discontinued will be based on consideration of the following factors:

(1) Whether fish are in good condition. This includes self-sustaining populations of brown trout and other trout similar to those that existed prior to the diversion of water by Los Angeles and which can be harvested in moderate numbers.

(2) Whether the stream restoration and recovery process has resulted in functional and self-sustaining stream systems with healthy riparian ecosystem components for which no extensive physical manipulation is required on an ongoing basis.[15]

The first of these factors reflects the importance of providing appropriate fishery habitat pursuant to the provisions of Fish and Game Code sections 5937 and 5946, and the direction of the Court of Appeal in *California Trout* v. *Superior Court* (1990) 218 Cal.App.187 [266 Cal.Rptr. 788]. The second factor is based on the overall goal of the stream restoration plan submitted by Los Angeles and is consistent with the emphasis the stream restoration scientists place on establishment of ecological processes.[16]

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[15] The evidence presented in the current proceeding and the proceedings leading to Decision 1631, which is extensive, establishes that it is impossible (and in some respects, undesirable) to restore the Mono Basin streams to the conditions which existed prior to when Los Angeles began its diversions in 1941. (See e.g., T 316:12-320:1.) Evidence of pre-1941 conditions may provide a helpful reference point, but neither Decision 1631 nor this order establishes "pre-1941 conditions" as the goal of the stream and waterfowl habitat restoration plans. (See R-DWP-17. Appendix 4, p. 2.) Although the stream conditions will be different than existed before 1941, there is considerable evidence in the record indicating that the flows and other requirements imposed by Decision 1631 and this order will result in a better fishery than existed prior to Los Angeles' diversions.

[16] Decision 1631 required Los Angeles to "propose criteria for determining when monitoring shall be terminated." (Decision 1631, p. 207.) To the extent that this provision may have led interested parties to assume that quantified measurement(s) of various stream characteristics would be the only acceptable basis for eventual termination of the stream monitoring program, the SWRCB regrets the misunderstanding.

5.3.3 *Provisions of Proposed Settlement Regarding Rush Creek Return Ditch, Placement of Large Woody Debris, Reopening Side Channels, Sediment Bypass Facilities, Fish Passage Facilities, the Grant Lake Operations and Management Plan, and Flow Data Collection Facilities*

As explained in Section 5.2 above, the proposed settlement agreement includes various changes and clarifications in the provisions of Los Angeles' stream restoration plan. The changes and clarifications concern the Rush Creek Return Ditch, placement of large woody debris in stream channels, reopening side channels, sediment bypass facilities, fish passage facilities, the Grant Lake Operations and Management Plan, and flow data collection facilities. Except as modified by this order based on the findings herein, the provisions of the proposed settlement regarding these subjects constitute a reasonable approach to resolution of the parties' remaining differences regarding the Mono Basin stream restoration plan in a manner which is consistent with the requirements of Decision 1631. In order to allow for easy monitoring of the flows in Rush Creek, Lee Vining Creek, Parker Creek, and Walker Creek, this order provides that the retrofitted streamflow data collection facilities referred to in the proposed settlement shall be installed and operated in a manner acceptable to the Chief of the Division of Water Rights and that data from those facilities shall be made available on a real-time basis.

5.4 Higher Streamflows Due to Additional Water Needed to Maintain Water Level of Mono Lake

Until the water elevation of Mono Lake reaches 6,391 feet, the water diversion criteria established in Decision 1631 limit water exports from the Mono Basin based on the need for additional water to raise the water level in the lake. These restrictions on diversions are in addition to the restrictions needed to meet the instream flow requirements and channel maintenance flow requirements in Decision 1631. The Grant Lake Operations and Management Plan refers to this water as "Mono Lake maintenance water." The plan proposes to release a portion of the "Mono Lake maintenance water" to increase the "base" flows for instream purposes in the four affected streams in some months of some water year types as set forth in Table 1 on page *x* of the plan. (R-DWP-18.)

The proposed settlement agreement makes a slight modification to the provisions of the Grant Lake Operation Management Plan concerning excess water needed for "lake level" purposes. The agreement provides that, to the extent practicable, the water needed for lake level purposes be allowed to flow down the four affected streams "in a manner as to mimic the impaired natural hydrograph." The SWRCB finds that releasing or bypassing the additional water required for lake level purposes in a manner which reflects the natural impaired hydrograph is a reasonable water management approach.

The instream flow requirements established in Decision 1631 were based on a detailed review of extensive evidence regarding flows needed for protection of fish in the affected streams. Revision of the instream flow requirements for protection of fish and fishery habitat was not the subject of the present proceeding. Therefore, approval of the settlement agreement provision regarding the release or bypass of additional water needed for maintaining the water level in Mono Lake, should not be construed as a revision of the instream flows for fishery habitat specified in Decision 1631.

5.5 Summary and Conclusions Regarding Stream Restoration Plan

The stream restoration measures called for in Los Angeles' plan and the proposed settlement agreement emphasize facilitating the natural recovery of the affected streams and adjoining area through providing proper flows and sound land management. The evidence before the SWRCB establishes that the emphasis on flows and sound land management is desirable and that, in this instance, an approach to stream restoration which relies on extensive structural measures cannot be justified.

Decision 1631 provided that the required restoration plans are to be "functionally linked to the stream flows and lake levels" provided in the decision. (Decision 1631, p. 204.) The higher peak flows proposed in the settlement agreement for stream restoration purposes exceed the channel maintenance flows specified in Decision 1631, but the higher stream restoration flows were agreed to by Los Angeles and they would not require a reduction of exports from the Mono Basin in years with normal or below normal precipitation. This order establishes higher flows for

stream restoration purposes on an interim basis pending future review and revision by the SWRCB.

No evidence was presented concerning the relationship between the higher peak flows recommended in the proposed settlement and the regulation of water exported from the Mono Basin which is discharged as flow into the upper Owens River. Therefore, it is appropriate to provide that this order does not alter the requirements governing discharges from the East Portal to the upper Owens River.[17]

The SWRCB's enforcement authority regarding requirements established in a water right decision stems from the Board's jurisdiction under the Water Code, the California Constitution and the public trust doctrine over the diversion and use of water. Consequently, it is appropriate for the requirements of a water right decision or order to be directed at the water right holder or other party whose diversion or use of water is under consideration. The requirements in this order are structured to avoid improper delegation of SWRCB authority and to allow for effective enforcement of the order by the SWRCB or the Chief of the SWRCB's Division of Water Rights.[18]

Several witnesses testified regarding the need for adaptive management to respond to changing conditions and new information. The evidence before the SWRCB regarding the results of past stream restoration efforts and the significant changes in recommendations regarding the nature of future restoration work demonstrate the need for flexibility as additional knowledge and experience are acquired. It generally would not be feasible for the SWRCB members to consider

[17] The Grant Lake Operations and Management Plan discusses the possibility of revisions to the pattern of water exports from the Mono Basin in order to maximize the beneficial use of water in the upper Owens River Basin. The plan proposes that any such changes would be made in consultation with the upper Owens River landowners and DFG. Any changes in the pattern of Mono Basin water exports which are not consistent with the provisions of Decision 1631 would require approval of the SWRCB.

[18] In addition to issues regarding improper delegation of authority, the repeated requests for delay in the hearing which preceded this order demonstrate the problems and delay that would be inherent in establishing a procedure in which decisions or actions require the repeated agreement of numerous parties.

minor modifications to restoration work conducted under the requirements of this order within the timeframe in which a decision is needed. Therefore, this order provides that any revisions to required restoration measures shall be subject to the approval of the Chief of the Division of Water Rights. The delegation of authority to the Chief of the Division of Water Rights establishes a workable procedure allowing for adaptive management during the stream restoration and recovery process.

The stream restoration plan and the Grant Lake Operations and Management Plan submitted by Los Angeles, with the modifications in the proposed settlement agreement and this order, set forth restoration proposals which are reasonable, feasible, and which appear to be adequate to achieve reasonable restoration of the four affected streams and stream channels with minimum potential for adverse environmental effects. The plans identify the specific projects to be undertaken, the implementation schedule, estimated costs, method of financing, and estimated water requirements. The requirements of this order are generally consistent with the provisions of the stream restoration plan and the stream restoration provisions of the proposed settlement. The SWRCB concludes that implementation of the specified stream restoration measures pursuant to the provisions of this order will satisfy the stream restoration requirements of Decision 1631.

6.0 WATERFOWL HABITAT RESTORATION PLAN

As discussed in Section 2.2 above, Decision 1631 recognized the trade-offs between establishing an average lake level of 6,405 feet (which would lead to restoration of the largest amount of waterfowl habitat) and establishing an average lake level of 6,392 feet. The target average elevation of 6,392 feet, and the accompanying inflow to Mono Lake, will lead to restoration of a significant amount of waterfowl habitat while also maintaining access to popular tufa sites and allowing diversion of water for municipal use. In furtherance of the constitutional mandate to maximize the beneficial use of water for all purposes, Decision 1631 relied upon the physical solution doctrine as the basis for requiring Los Angeles to prepare a waterfowl habitat restoration plan which proposes reasonable, financially feasible waterfowl habitat restoration measures which

have minimum potential for causing adverse environmental impacts.[19] Among other things, the waterfowl habitat restoration plan was required to identify the specific projects to be undertaken, the implementation schedule, and the estimated costs.

Based on the recommendations of several parties specified in Decision 1631, Los Angeles retained a group of three waterfowl experts to develop a waterfowl habitat restoration proposal. The three scientists' report served as the primary technical document for development of the waterfowl habitat restoration plan submitted by Los Angeles. (R-DWP-20.) There was considerable disagreement among the parties to the hearing regarding measures proposed in that plan. Near the close of the hearing, Los Angeles and several other parties proposed that the SWRCB adopt a revised approach to waterfowl habitat restoration as set forth in the "Mono Basin Waterfowl Habitat Restoration Foundation Conceptual Agreement." (R-DWP-68A, hereinafter referred to as the "conceptual agreement.") The executed agreement was provided to the SWRCB following the hearing. The approach to waterfowl habitat restoration proposed in the conceptual agreement is supported by the parties to the agreement, but opposed by PMBP, Mono County, and numerous Mono County residents and organizations.

Sections 6.1 through 6.5 below discuss the three scientists' report, the waterfowl habitat restoration plan initially submitted by Los Angeles, the approach to waterfowl habitat restoration called for in the conceptual agreement, specific waterfowl habitat restoration measures addressed at the hearing, and the waterfowl habitat restoration measures which the SWRCB concludes should be implemented pursuant to the provisions of Decision 1631 and this order.

6.1 Waterfowl Scientists' Report

Most of the proposed waterfowl habitat restoration projects addressed at the hearing were based in whole or in part on a report dated February 1996 prepared by Dr. Roderick C. Drewien,

[19] In contrast to long-standing disputes over the nature and extent of stream restoration work to be undertaken by Los Angeles, the subject of active waterfowl habitat restoration measures has not been the subject of litigation or court orders. Rather, the requirement to prepare a waterfowl habitat restoration plan originated with Decision 1631.

Dr. Frederic A. Reid and Mr. Thomas D. Ratcliff pursuant to a contract with Los Angeles. (R-DWP-20, Appendix I.) The report concludes that the most important and highest priority restoration effort is to increase the lake level to 6,392 feet as ordered in Decision 1631. The increased lake elevation is expected to "restore the largest acreage, and the most diversity of waterfowl habitats." (R-DWP-20, Appendix I, p. 111.) For example, in the Lee Vining Creek area, the scientists estimate that rising lake levels and increased stream flows will result in an increase of 8 to 10 acres in the hypopycnal environment,[20] formation of 20 to 40 acres of brackish lagoons, and 10 acres of restored riparian area in the Lee Vining Creek bottomlands. (R-DWP-20, Appendix 1, p. 92.)[21]

The second priority recommended in the report would be to rewater Mill Creek. Other recommended projects include rewatering "distributaries" in the Rush Creek bottomlands, developing additional freshwater habitats in the County Ponds and Black Point areas, developing a prescribed burn program to enhance marsh and wetland habitats, developing a program to remove the non-native plant Salt Cedar (Tamarisk) in lake fringing wetlands, investigating the feasibility of enhancing artificial ponds near Simons Springs and creating other shallow ponds in lake-fringing areas, and implementing a detailed monitoring program to evaluate changes in habitats and to determine the responses of waterfowl populations to restoration efforts and rising lake levels. (R-DWP-20, Appendix I, pp. 111-114.)

PMBP presented testimony regarding a lengthy conversation in which Mr. Ratcliff disagreed with some of the main recommendations of the report, particularly the emphasis placed on restoring Mill Creek as a means of providing waterfowl habitat. (T 1742:13-1745:10.)[22] Of the three

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[20] Section 6.4 below discusses the relationship between stream flows and the "hypopycnal conditions" which result where freshwater from tributary streams meets the saline water of Mono Lake.

[21] The waterfowl scientists' report recommends no additional restoration projects for Lee Vining Creek other than continuing to provide the flows required under Decision 1631.

[22] Testimony from other witnesses regarding potential problems with restoration of Mill Creek is discussed in Section 6.4.2

authors of the report, only Dr. Reid testified in the SWRCB proceedings. Dr. Reid testified that his opinion regarding the expected success of the proposal to rewater Mill Creek was based on the assumption that the USFS water rights for DeChambeau Ranch would be dedicated to instream use on Mill Creek. (T 980: 4-980:21.)

Although the report includes some information about the cost of potential restoration measures, Dr. Reid testified that the scientists were instructed by Los Angeles not to include cost considerations as an element in making their recommendations of waterfowl habitat restoration projects. (T 883:9-883:20.) The relatively high cost of several recommended projects confirms that economic feasibility was not a major consideration in the scientists' report.

Dr. Reid testified that Ducks Unlimited, the organization for which he works, has a reputation for promoting cost-effective waterfowl habitat restoration. In 1993, Dr. Reid testified that Ducks Unlimited typically undertakes projects which cost about $100 per acre and generally does not get involved in waterfowl habitat restoration proposals that cost more than $1,000 per acre. (T 970:16-973:24.) Yet the County Ponds proposal described in the scientists' report proposes to restore approximately 20 acres of ponds at an estimated cost of $638,437, or approximately $31,922 per acre. (R-DWP-20, Appendix 1, p. 89.)

There was other evidence indicating that waterfowl habitat projects on the eastern slope of the Sierra are typically more expensive than restoration projects in other areas. Dr. Reid acknowledged that the cost of the County Ponds proposal was high but said the proposal was considered a reasonable project "based on the fact that there were few other options for creating fresh water habitat." (T 973:1-973:24.) Nevertheless, on a per acre basis, the County Ponds proposal described in the scientists' report is more than twice as costly as the DeChambeau Ponds restoration project jointly undertaken by the Forest Service, Ducks Unlimited and MLC, and much more costly than the alternative of providing water to the County Ponds area through resumption of diversions from Wilson Creek under USFS water rights. (See Section 6.4.3.) The Los Angeles waterfowl habitat restoration plan concluded that the three phase project that includes the County Ponds proposal as described in the waterfowl scientists' report "is not

financially feasible without significant funding contributions from other sources." (R-DWP-20, p. 23.)

Decision 1631 directed that the restoration plans should emphasize restoration proposals with minimum potential for adverse environmental impacts. (Decision 1631, p. 207.) However, the waterfowl scientists' report included very little discussion or recognition of the potential adverse environmental effects of restoring flows to Mill Creek at the expense of flows in Wilson Creek. As discussed in Section 6.4.2 below, evidence presented by BLM and the PMBP establishes that Wilson Creek provides important habitat for fish and wildlife, and that the present level of flow in Wilson Creek serves numerous other beneficial uses. Certainly, if proposals to restore higher flows to Mill Creek are pursued by Los Angeles or others, then the environmental effects of those proposals must be fully evaluated before deciding if benefits of the proposal outweigh the adverse effects.

In summary, the waterfowl scientists' report provides a detailed assessment of numerous waterfowl habitat restoration possibilities in the Mono Basin. The report was used in developing the waterfowl habitat restoration plan submitted by Los Angeles and it provides much of the basis for the conceptual agreement submitted as part of a suggested settlement. In reviewing the waterfowl habitat restoration proposals addressed in the report and at the hearing, the SWRCB must consider the evidence in the record regarding potential adverse environmental effects of proposed restoration measures, economic feasibility and reasonableness, and the extent to which proposed restoration measures comply with other criteria specified in Decision 1631.

6.2 Waterfowl Habitat Restoration Plan Submitted by Los Angeles Department of Water and Power

The waterfowl habitat restoration plan submitted by Los Angeles is based in large part upon the recommendations in the waterfowl scientists' report. However, the role of Los Angeles in carrying out and funding some of the restoration proposals was modified based on an assessment of economic costs and reasonableness. The plan also includes significantly more information regarding the costs of the proposed projects, methods of financing, a proposed implementation

schedule, and the review and approval of other agencies having jurisdiction. The plan recognizes the importance of rising lake levels as identified in the scientists' report. The Los Angeles plan proposes to: partially rewater Mill Creek; rewater distributaries in the Rush Creek bottomlands; develop habitat in the DeChambeau Ponds, County Ponds, and Black Point areas; develop a prescribed burn program for lake-fringing wetlands; and participate in interagency efforts to control Salt Cedar. (R-DWP-20, pp. vi, vii and 10.)

The estimated initial cost to be borne by Los Angeles under its plan is $150,000 including the cost of environmental documentation. The Los Angeles plan proposes to secure $753,000 in outside funding for habitat restoration work in the DeChambeau Ponds, County Ponds, and Black Point area. In accordance with the recommendation of the waterfowl scientists' report, the main portion of the $753,000 would go for development of ground water supplies to replace surface water which has previously been available under the USFS right. In addition, Los Angeles estimates that its plan would involve average annual expenses of $180,000 of which approximately $140,000 would be used for annual monitoring expenses. (R-DWP-20, p. vii.)

The Los Angeles waterfowl habitat restoration plan was the subject of criticism by some parties who argue that the plan did not commit Los Angeles to enough waterfowl habitat restoration work. The plan was also subject to extensive criticism from PMBP and numerous residents and organizations from the Mono Basin and surrounding areas who oppose waterfowl habitat restoration proposals for the north end of the Mono Basin which could adversely affect resources and uses dependent upon Wilson Creek.

At the request of several parties to the proceeding, the SWRCB announced on February 25, 1997, that it would recess the hearing in order to allow the parties an opportunity to prepare a proposed settlement for consideration by the SWRCB. The result of those negotiations was the proposed settlement agreement discussed in Section 5.2 above. On May 6, 1997, counsel for Los Angeles requested that the Waterfowl Habitat Restoration Foundation Conceptual Agreement (R-DWP-68A) be regarded as a modification of the waterfowl habitat restoration plan which Los Angeles had previously submitted.

6.3 Proposed Settlement Based on Waterfowl Habitat Restoration Foundation Conceptual Agreement

The proposed settlement regarding waterfowl habitat restoration calls for payment by Los Angeles of $3.6 million to a proposed Mono Basin Waterfowl Habitat Restoration Foundation composed of DPR, SLC, DFG, USFS, NAS, and MLC. With the exception of waterfowl habitat restoration in the Rush Creek bottomlands as previously proposed in the Los Angeles plan, Los Angeles would be relieved of any obligation for waterfowl habitat restoration. Any further waterfowl habitat restoration measures would be carried out at the direction of the foundation in accordance with the provisions of the Mono Basin Waterfowl Habitat Foundation Conceptual Agreement. (R-DWP-68A.) The conceptual agreement calls for:

(1) Spending $410,000 for monitoring various conditions relevant to waterfowl and waterfowl habitat over the next ten years;

(2) A preliminary allocation of $340,000 for "restoring, operating, and maintaining open water habitat over the next ten years;"[23]

(3) Rewatering Mill Creek with year-round flows following environmental evaluation "consistent with the California Environmental Quality Act and the National Environmental Policy Act to determine the appropriate water allocation to achieve the waterfowl scientists' restoration goals;"[24] and

(4) Consideration of other restoration and monitoring measures such as the feasibility of rewatering the County Pond system immediately below the DeChambeau Ponds.

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[23] The specific projects through which "open-water habitat" would be restored or maintained have not been determined, nor is the acreage of proposed waterfowl habitat specified.

[24] The conceptual agreement states that a final decision on rewatering Mill Creek will not be made prior to the conclusion of the CEQA/NEPA process. That process had not begun by the close of the hearing.

With the exception of the amounts allocated to monitoring activities and restoration and maintenance of open water habitat, the conceptual agreement does not specify how the remaining $2.85 million of the funds to be contributed to the foundation is to be spent among the various potential restoration projects or related activities. Neither the conceptual agreement, nor any of the parties to the agreement, have identified the specific restoration projects which would justify payment of $3.6 million to the proposed foundation.

Although DFG officially supports approval of the entire settlement agreement, the testimony of DFG witnesses raises questions regarding whether the approach to waterfowl habitat restoration taken in the settlement agreement is reasonable, cost effective, or likely to result in productive waterfowl habitat restoration. In response to questioning by the representative of PMBP, DFG's Environmental Services Division Chief acknowledged having expressed misgivings about the waterfowl habitat provisions of the proposed settlement agreement. (T 1585:4-1586:13, T 1639:3-1639:12.) Similarly, the DFG biologist most involved with waterfowl habitat issues in the Mono Basin testified at length regarding numerous deficiencies of the proposed settlement regarding waterfowl habitat restoration. (T 1586:14-1620:19.)

Whatever merit the conceptual agreement on waterfowl habitat restoration may have, it is clear that the measures called for in the agreement do not comply with the requirements of Decision 1631. Contrary to the requirements of Decision 1631, the conceptual agreement does not identify most of the specific restoration measures to be undertaken; it does not identify the estimated costs for most of the proposed projects; it does not specify an implementation schedule for most of the work that is to be done; and it does not identify the estimated water requirements for proposed projects. Contrary to the direction of Decision 1631 that the proposed restoration plans "shall emphasize measures that have minimum potential for adverse environmental effects," the conceptual agreement places a high priority on the rewatering of Mill Creek despite evidence that rewatering Mill Creek could result in significant adverse effects to fish and other public trust resources dependent upon flow in Wilson Creek.[25]

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[25] The proposal to rewater Mill Creek is discussed in greater detail in Section 6.4.2 below. [footnote continued]

Decision 1631 called for a cooperative restoration planning process, followed by a decision on what measures were to be pursued and, finally, followed by implementation of the selected measures. SWRCB approval of the conceptual agreement would essentially establish a new planning process with no resolution of what specifically is to be done, at what cost, where, or with what environmental impacts. The SWRCB's clear authority over a water right licensee would be replaced by a less clear oversight role with respect to a newly created foundation not subject to the statutory authority of the SWRCB.[26]

Moreover, the conceptual agreement is opposed by numerous Mono Basin residents, the Mono County Board of Supervisors and other elected officials, and many other local groups. The widespread opposition to the proposed settlement makes it apparent that the benefits normally expected from accepting a settlement proposal involving many, but not all, parties cannot be expected in the present case. Rather than retaining SWRCB oversight of specific restoration projects to be undertaken by a water right licensee, approval of the waterfowl habitat portion of the proposed settlement would result in endowing a new independent foundation with $3.6 million of public funds to pursue unspecified projects over the opposition of Mono County and numerous residents of the Mono Basin. Rather than representing resolution of the disputes over waterfowl habitat restoration proposals, SWRCB approval of the conceptual agreement could cause an escalation of those disputes.

6.4 Analysis of Waterfowl Habitat Restoration Proposals

The diversion of water from Mono Basin streams for use in Los Angeles resulted in greatly reduced inflow to Mono Lake and a lower water level at the lake. This, in turn, caused a

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[26] The SWRCB would have jurisdiction if the foundation proposes to initiate a new appropriation or petitions for a change subject to Water Code section 1707. Similarly, the California Regional Water Quality Control Board, Lahontan Region, would have jurisdiction over any discharge of water by the foundation. In the absence of a diversion or use of water by the foundation, however, the foundation is not subject to the SWRCB's continuing authority to apply public trust or reasonableness requirements, and the SWRCB would not be able to ensure that the funds provided to the foundation achieve the purposes of Decision 1631.

reduction in freshwater habitat areas around the lake and a large reduction in the hypopycnal[27] areas at the mouths of Rush Creek and Lee Vining Creek.[28] The waterfowl scientists' report agrees with the finding in Decision 1631 that the most significant measure to improve waterfowl habitat is to restore the flow in the four tributary streams and thereby raise the water level of Mono Lake.

Dr. Scott Stine testified that, with the flow requirements for Rush Creek and Lee Vining Creek established in Decision 1631, there will be larger hypopycnal areas at Mono Lake during the fall and winter than existed under natural conditions. (T 1818:5-1818:20.) The increased hypopycnal areas will be present during the most important periods for waterfowl habitat in the Mono Basin. (T 1842:1-1842:17.) Thus, the requirements of Decision 1631 will restore a significant amount of important waterfowl habitat through increasing the water level of Mono Lake and restoring large hypopycnal areas at the mouths of Rush Creek and Lee Vining Creek.[29]

Requiring a higher lake level (above the 6,392 feet provided for in Decision 1631) could restore additional waterfowl habitat, but would also result in flooding additional tufa areas, as well as reduce the amount of water available for consumptive uses. Rather than requiring a higher water level in Mono Lake, Decision 1631 directed Los Angeles to evaluate other potential measures that

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[27] The phenomenon of "hypopycnal stratification" is discussed on page 96 of Decision 1631. It occurs in areas where the lighter freshwater from tributary streams meets the denser saline water of Mono Lake and forms a freshwater lens on top of the saline lake water.

[28] Historically, the Rush Creek and Lee Vining Creek delta areas provided habitat for large numbers of ducks. (R-DWP-20, Appendix I, pp 30-33.)

[29] The hypopycnal area near the mouth of Mill Creek at the time that Los Angeles began its diversions in 1941 was already reduced from what it had been under natural conditions due to the diversion of flow from Mill Creek to Wilson Creek in the early 1900's. A detailed discussion of the projected hypopycnal conditions at an average lake elevation of 6,392 feet is presented in Exhibit R-SLC/DPR-401. That report states that "the Board-ordered flows down Rush and Lee Vining Creeks will largely restore the hypopycnal lenses that previously characterized Mono Lake in the vicinity of the stream mouths." The report also states that the hypopycnal lens near Rush Creek during October through December will be slightly smaller while the hypopycnal lens near Lee Vining Creek in the autumn will be more extensive. The report also discusses locations where significant increases in hypopycnal areas are projected but concludes that "the total amount of hypopycnal lake surface will remain below that which existed prior to 1941." (R-SLC/DPR-401, p. 59.) There is no evidence in the record that the size of hypopycnal areas projected to exist at lake elevation 6,392 feet will be insufficient to accommodate potential waterfowl populations.

could restore or help mitigate for the loss of waterfowl habitat due to water diversions by Los Angeles.

Both the Los Angeles waterfowl habitat restoration plan and the settlement proposal represented in the conceptual agreement are based in large part upon recommendations in the waterfowl scientists' report. Therefore, evaluation of the waterfowl habitat restoration proposals before the SWRCB requires examination of several of the major restoration measures identified in the scientists' report. As indicated in the hearing notice, the focus of the SWRCB's inquiry is on determining if the restoration proposals presented comply with the criteria established in Decision 1631, and, if not, what revisions are necessary.

6.4.1 *Restoration of Secondary Stream Channels in Rush Creek Bottomlands*

The long periods of little or no flow in Rush Creek due to diversion of water by Los Angeles resulted in major changes in the configuration of Rush Creek and the adjoining side channels or distributaries. The waterfowl scientists' report states that approximately 15 acres of waterfowl habitat in the Rush Creek "delta trench" will be restored by the rising lake level and "many" more acres of habitat can be restored by rewatering abandoned channels. Approximately 58 acres of habitat in the Rush Creek bottomlands was considered to be irretrievably lost due to stream incision. (R-DWP-20, Appendix I, p. 54.) The predicted net loss of bottomlands habitat along Rush Creek is approximately 43 acres. (R-SLC/DPR-403, p. 6.)

The waterfowl scientists' report recommends that several secondary stream channels be reopened in the Rush Creek bottomlands to provide small flows for restoration of waterfowl habitat in backwater depressions. The report recommends that consideration be given to sites which will be self-maintaining and which will not require extensive maintenance. The report also advises that mechanical disturbance to surface areas should be minimized. The report identifies five specific channels and channel complexes which have a high potential for waterfowl habitat restoration. (R-DWP-20, Appendix I, pp. 91 and 92.)

The waterfowl habitat restoration plan submitted by Los Angeles proposes to rewater all of the five channels and channel complexes identified in scientists' report. (R-DWP-20, p. 9.) The Los Angeles plan also recommends that periodic evaluations be conducted to assess the recovery of secondary channels and depressional areas. Some of the channels which are proposed to be rewatered for waterfowl habitat purposes were also identified in the stream restoration plan discussed in Sections 5.0 through 5.4 above. The Los Angeles waterfowl habitat restoration plan provides that Los Angeles will fund the $68,000 estimated cost for the project and that work will begin during the first full field season after approval of the plan by the SWRCB. The goal is to complete as much of the work as possible in the first year, although two or more years may be required to open all of the identified channels. (R-DWP-20, p. 22.) There was no evidence presented of adverse environmental effects attributable to reopening the secondary channels in the Rush Creek bottomlands.

The proposed settlement agreement provides that Los Angeles will carry out the reopening of Rush Creek channels as specified in its waterfowl habitat restoration plan. (R-DWP-68A, p. 12.) There was no evidence or argument presented in opposition to the proposed restoration of waterfowl habitat through reopening the Rush Creek distributaries. Based on the evidence before us, the SWRCB concludes that the proposal to rewater the Rush Creek distributaries as described in Los Angeles' waterfowl habitat restoration plan meets the requirements of Decision 1631 and should be implemented.[30]

6.4.2 *Rewatering of Mill Creek*

Diversion of water from Mill Creek for irrigation began before the turn of the century. Dr. Stine testified that the bottomlands of Mill Creek are marked by the trunks of dead cottonwood trees killed by the dewatering of the stream that began in the 1870's. By early in this century, most of the riparian vegetation on the Mill Creek bottomlands had died. (R-SLC/DPR-400, p. 2.) Construction of the "Lundy Project" hydroelectric facilities in 1911 by a predecessor to Southern

[30] Any disturbance of the channel of Rush Creek is subject to the requirement of a streambed alteration agreement with DFG pursuant to Fish and Game Code section 1603.

California Edison resulted in diversion of water from Mill Creek through the Lundy Powerhouse and release into the tailrace. From the tailrace, the majority of the water flows to Wilson Creek. The net result of water diversion for irrigation and power purposes at the north end of the Mono Basin is that the quantity of flow in lower Mill Creek has been substantially reduced from what existed in a state of nature, and much of that water now flows downstream to Mono Lake through Wilson Creek. Although Los Angeles uses its water rights on Mill Creek for irrigation of Thompson Ranch, Los Angeles does not divert any water from either Mill Creek or Wilson Creek for export from the Mono Basin.

Due to water diversions for agriculture and power production, the wetland areas adjoining Mill Creek did not contribute significant habitat to the abundant waterfowl populations reported at Mono Lake during the early 1930's to early 1960's. (R-DWP-20, Appendix I, p. 97.) The waterfowl scientists' report discusses the possibility of restoring a portion of the riparian habitat and vegetation which once adjoined Mill Creek as a means of mitigating for losses of similar habitat elsewhere in the Mono Basin. The report cites a study by Dr. Stine who estimated that restoration of flow to Mill Creek could create "approximately 14 acres of hypopycnal environment at the mouth of Mill Creek, 16 acres of riparian wetlands in the stream bottomlands, and 25 acres of riparian vegetation on the exterior delta . . . ." (R-DWP-20, Appendix I, p. 97.) The scientists' report acknowledges that restoring the maximum amount of waterfowl habitat in Mill Creek would require reinstating most, if not all, of the annual flows which are currently in Wilson Creek. Although the report places a high priority on increasing flows to Mill Creek, it recognizes that: "[r]estoration of all potential waterfowl habitat on Mill Creek does not appear feasible under current conditions due to complicated issues involving water rights and the need for structural improvement to convey increased flows." (R-DWP-20, Appendix I, pp. 97 and 98.)[31]

[31] The rights of various parties to water from Mill Creek were adjudicated in a November 30, 1914 decree of the Mono County Superior Court. (R-Beckman-2; *Hydro Electric Co.* v. *J.A. Conway et al.*, Superior Court No. 2088.)

The scientists' report goes on to recommend: (1) dedication of Los Angeles' water right on Mill Creek to restoration of instream flows in Mill Creek; (2) possible dedication of the USFS water right for use in rewatering Mill Creek; (3) reopening of several Mill Creek channels; (4) assessing the feasibility of reopening other Mill Creek channels; and (5) negotiations among Los Angeles and other parties with the Conway Ranch and other entities to explore methods of obtaining water during the September to March period. (R-DWP-20, Appendix I, pp. 98 and 99.) Despite the presence of elevated flows in Wilson Creek since early in this century and the development of an extensive riparian zone, self-sustaining Brown trout fishery, and varied wildlife populations dependent upon the existing pattern of flow, the report refers to Wilson Creek as "historically an ephemeral channel, flowing only at peak runoff" which has limited value to waterfowl and little potential for restoration. Without any discussion of the fish, wildlife, and other resources dependent upon Wilson Creek, the report concludes that the "best ecological use of current Wilson Creek water is to return most of it to Mill Creek as close to the headwaters as possible." (R-DWP-20, Appendix I, p. 99.)

The scientists' recommendation to pursue rewatering Mill Creek through use of flows now in Wilson Creek was carried over to the proposed settlement as set forth in the provisions of the conceptual agreement. The conceptual agreement "endorses" the recommendations of the February 1996 waterfowl scientists' report and provides that the "proposed project" is rewatering Mill Creek with high springtime and summer flows, high flows during late summer and fall to ensure maximum water availability during times when waterfowl are most abundant, and rewatering abandoned channels in the bottomlands and delta trenches in order to maximize spring recharge and provide for large hypopycnal areas beyond the stream mouth. (R-DWP-68A, pp. 1 and 3.)[32]

[32] Having described the "proposed project" in a manner which would require redirection to Mill Creek of most of the flow presently in Wilson Creek, the conceptual agreement goes on to state that the parties will analyze the proposed project consistent with California Environmental Quality Act and National Environmental Policy Act requirements "to determine the appropriate water allocation to achieve the waterfowl scientists restoration goals." The conceptual agreement provides that a "final decision" will not be made prior to the conclusion of the CEQA/NEPA process, but the language of the agreement appears to support the fears of PMBP that the parties to the settlement agreement are predisposed to pursue rewatering of Mill Creek as a favored waterfowl habitat restoration measure. (R-DWP-68A, p. 3.)

Dr. Stine testified that he expected that the proposed rewatering of Mill Creek botttomlands could "provide habitat for hundreds, but not thousands or tens of thousands, of ducks." (T 1823:18-1823:25.) Dr. Stine went on to explain that the primary purpose of rewatering Mill Creek would be to increase the hypopycnal area at the mouth of Mill Creek. (T 1824:8-1825:13.) In a meeting before a group in the Mono Basin, Dr. Stine explained his views regarding Mill Creek restoration as follows:

> "The reason this [the rewatering of Mill Creek] is being discussed in terms of ducks is that the waterfowl issue has been raised by the State Water Board. There have been lots of us, who for a long time, have been seeing that in terms of an environmental issue, in terms of a species issue, in terms of a nature issue, Mill Creek is the big issue left in the Mono Basin. Not just because of waterfowl, but for lots and lots and lots of reasons. So I would -- just want to make it clear that by putting water back into Mill Creek is not being suggested simply because of waterfowl. I would say that there's [sic] a relatively one of, perhaps even one minor element, of a whole bunch of different elements of why to rewater Mill Creek, why to put Mill Creek back to the way it has been for the past 10,000 years." (R-PMBP-31; T 1828:25-1831:13.)

Although Dr. Stine believes that many of the resources currently served by water in Wilson Creek could continue to be served if flows were returned to Mill Creek, he believes that it would not be possible to restore the hypopycnal area at the mouth of Mill Creek and retain sufficient water in Wilson Creek to protect the existing year-round fishery. (T 1836:4-1837:21.)

Testimony and exhibits submitted by several parties referred to the existing brown trout fishery in Wilson Creek. (e.g., R-BLM-3, p. 3; R-PMBP-30, pp. 2, 13 and 14.) In commenting on a proposed hydroelectric project on Wilson Creek in 1993, DFG stressed that Wilson Creek had a self-sustaining brown trout fishery which compared favorably with other streams in the area, and that "[i]nstream flows necessary to maintain this population in good condition are required by law." (R-PMBP-18, DFG letter dated June 1, 1993 regarding "Paoha Project," FERC No. 3259.) The testimony of Dr. Stine and others indicates that there appears to be insufficient flow in Wilson Creek and Mill Creek to simultaneously restore the large hypopycnal area at the mouth of

Mill Creek and maintain sufficient flow in Wilson Creek to maintain the existing fish in good condition.[33]

BLM presented written and oral testimony from Terry Russi, a wildlife biologist with 14 years of experience in BLM's Bishop Resource Area in which the Mono Basin is located. (R-BLM-3; T 806:13-812:21.) Over a period of 18 years, BLM has developed an extensive data base on all reaches of Wilson Creek. BLM's evaluation of the available data led it to classify the portion of Wilson Creek upstream of Highway 167 in the highest available ranking for streams under the Department of the Interior's system for evaluating the ecological status of streams on public land. BLM reported that "[r]iparian vegetation conditions and streambank stability are robust" in this reach of Wilson Creek. BLM describes the vegetation along Wilson Creek as "structurally and compositionally varied, providing not only an important mix of wildlife habitats but ecologically important reference sites as well." BLM reports that a "highly diverse assemblage of birds and mammals" uses the riparian corridor of Wilson Creek, including a "high number of songbird species, waterfowl, . . . mule deer, and an unusually high density of small mammals dominated by meadow voles and shrews." (R-BLM-3.)[34]

BLM expressed concern that Los Angeles' waterfowl habitat restoration plan failed to consider the presence and value of physical and biotic conditions between the point where water is diverted into Wilson Creek and Highway 167, a distance of approximately 3.4 stream miles. BLM concludes that:

> ". . . the goal of creating habitat on Mill Creek, at what may be the eventual expense of the substantial natural values along Wilson Creek is not supported by current practices employed in landscape (ecosystem) management and the wise conservation of biodiversity." (R-BLM-3; see also T 806:13-813:2.)

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[33] This order expresses no position regarding potential application of Fish and Game Code sections 5937 and 5946 to a proposal to substantially dewater an existing stream with a well-established fishery as part of a project which aims to restore flow to a natural stream which may have provided even better fish habitat several generations earlier.

[34] A detailed listing of birds observed in the vicinity of Wilson Creek and areas irrigated from Wilson Creek is provided in the Declaration of Colleen Yancey. (R-PMBP 9.)

Biologist Brian Tillemans testified that Wilson Creek provides some of the best waterfowl habitat in the north shore area at the present time and that he would be very concerned about impacts to waterfowl if all the flow were removed from Wilson Creek. (T 658:7-658:25.) Similarly, PMBP presented testimony of long-time Mono Basin resident Joseph Bellomo that terminating irrigation of upper and lower Thompson Meadows in order to increase flows in Mill Creek, as proposed in the waterfowl habitat restoration plan, would cause the destruction of large meadow areas which provide habitat for many species of birds including geese which graze on grass in the meadows. (R-PMBP-30, pp. 1-6.)

PMBP introduced petitions with over 300 signatures of many long-time Mono Basin residents and others opposed to restoration of Mill Creek at the expense of Wilson Creek. (R-PMBP-27.) The depth of the local residents' opposition to sacrificing resources dependent upon flows in Wilson Creek is evident in the declarations of Martin A. Strelneck, Don L. Banta, Lily La Bragué Mathieu, Heidi Hess-Griffin, August Hess, and Jeffrey P. and Kathleen A. Hansen. (R-PMBP-10. R-PMBP-11, R-PMBP-12, R-PMBP-13, R-PMBP-14, and R-PMBP-15.) Several participants in PMBP have described the prospect of attempting waterfowl habitat restoration along Mill Creek at the expense of the existing wildlife and other resources dependent upon flows in Wilson Creek as "restoration by destruction." In addition to the fish, wildlife and riparian resources in the immediate vicinity of Wilson Creek, PMBP urges the SWRCB to consider the wildlife, recreational, aesthetic, and cultural heritage benefits served by continued irrigation of nearby ranches. (T 1309:8-1325:23.)

It is apparent from the testimony and other evidence presented by PMBP that many Mono Basin residents view Wilson Creek and the resources dependent upon it from a distinctly different perspective than is reflected in the waterfowl scientists' report. Rather than seeing Wilson Creek as an unnatural, historic artifact to be disregarded in the pursuit of restoring "natural conditions," the record shows that many Mono Basin residents view Wilson Creek, and the resources dependent upon its flow, as being an invaluable part of their heritage with benefits to fish, wildlife, recreational users, and the scenery. Rather than focusing on the fact that the current channel configuration and flows of Wilson Creek did not exist some 80 to 100 years ago, the

participants in PMBP urge that full consideration be given to the current uses and condition of the stream.[35]

There was no evidence presented regarding the effect which restoring the full (or nearly full) flow of water to Mill Creek would have on the water elevation of Mono Lake. If irrigation at the north end of the Mono Basin were to be reduced in order to restore "natural" flows to Mill Creek, the inflow to Mono Lake would increase. Determining the impact the additional flow from Mill Creek would have on lake level would require evaluation of the inflows from other Mono Basin streams and the water diversion criteria established in Decision 1631. Evaluation of those issues is beyond the scope of the present proceeding.

In the period in which waterfowl were reported to be abundant in the Mono Basin during the 1930's to early 1960's, the flow in Mill Creek had already been reduced as discussed previously. (R-DWP-20, Appendix 1, p. 97.) Thus the large hypopycnal areas attributable to inflow to Mono Lake from surrounding streams was largely due to flows from Rush Creek and Lee Vining Creek. As discussed in Section 6.4 above, the testimony indicates that the flows in Rush Creek and Lee Vining Creek required by Decision 1631 will result in larger hypopycnal areas at the mouths of those streams than occurred under natural conditions during the months most important to waterfowl.[36] The SWRCB concludes that establishment or restoration of a large hypopycnal area at the mouth of Mill Creek is not necessary to provide suitable waterfowl habitat pursuant to the provisions of Decision 1631.

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[35] California courts have recognized that, through long-standing continued use and other conditions, an artificially created channel may acquire the attributes of a natural channel. (See *Chowchilla Farms* v. *Martin* (1933) 219 Cal. 1. 18 [25 P. 2d 435].)

[36] Dr. Stine testified that, in addition to restoration of hypopycnal areas at the mouths of Rush Creek and Lee Vining Creek, the restoration of stream flows and the rising lake level will result in "hypopycnal rias," or elongated embayments of hypopycnal conditions extending back from the lake along the streams. Although Dr. Stine testified that these "hypopycnal rias" did not exist prior to the time Los Angeles began its diversions, he believes that they will provide important waterfowl habitat. Dr. Stine also believes that restoration of high flows through multiple channels of the Mill Creek bottomlands would create additional "hypopycnal rias." (R-SLC/DPR-400.)

In summary, the diversion of water under Licenses 10191 and 10192 did not cause the reduction of flows in Mill Creek. In view of the increased hypopycnal areas at near the mouths of Rush Creek and Lee Vining Creek resulting from the flows required by Decision 1631, the need for an expanded hypopycnal area near the mouth of Mill Creek has not been established. The record indicates that the other benefits which rewatering Mill Creek would provide for waterfowl habitat are relatively minor. (See, e.g., T 1823:18-1825:73.) The present level of flow in Wilson Creek serves a wide variety of resources including fish, wildlife, recreation, irrigation, and scenic values which have not been adequately addressed or considered by the proponents of restoring Mill Creek. In contrast to the rewatering of small distributaries in the Rush Creek bottomlands discussed in Section 6.4.2, the proposal to rewater Mill Creek at the expense of present flows in Wilson Creek has a potential for significant adverse environmental impacts.[37]

The present proceeding was not intended to provide a forum for resolution of complicated land and water use issues at the north end of the Mono Basin which have relatively little to do with waterfowl habitat. However, the evidence presented at the hearing clearly establishes that rewatering Mill Creek sufficiently to create significant waterfowl habitat cannot be considered to be a project which has "minimum potential for adverse environmental effects." Thus, regardless of the ultimate merits of some future proposal that may involve increased flow in Mill Creek, the evidence before the SWRCB does not merit inclusion of that proposal in the context of considering waterfowl habitat restoration measures meeting the requirements of Decision 1631.[38] Proposals to rewater Mill Creek involve changes in the exercise of existing water rights which are beyond the scope of the current proceeding.

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[37] The proposed settlement agreement recognized the need for further environmental review of potential proposals for restoration of Mill Creek.

[38] If the proposal to rewater Mill Creek is pursued in the future, the specific environmental impacts of that proposal will have to be addressed in a detailed environmental impact report. There is evidence in the record that indicates it may be possible to increase the overall beneficial use of water presently in Wilson Creek. The SWRCB expresses no opinion on the question of whether overriding considerations might justify rewatering Mill Creek at the expense of resources currently dependent on Wilson Creek. The findings in this order are without prejudice to the SWRCB's review of future proposals that may come before the SWRCB.

6.4.3 *DeChambeau Ponds, County Ponds and Black Point*

The waterfowl scientists' report briefly discusses the historical development of artificial freshwater ponds on the DeChambeau Ranch which were heavily used by waterfowl. The report states that by 1992 only two of the ponds held water due to degradation from lack of maintenance. (R-DWP-20, Appendix I, p. 79.) Based on the recommendations in the scientists' report, the waterfowl habitat restoration plan submitted by Los Angeles discusses a three-phase project in the DeChambeau/County Ponds/Black Point area which would involve: (1) installation of underground irrigation pipe from an existing well to irrigate 10 acres of riparian vegetation and small depressional wetlands near DeChambeau Ponds at an estimated initial cost of $90,000; (2) artificial flooding of 20 acres in the County Ponds complex with water from new wells at an estimated cost of $640,000; and (3) increasing wetlands in the Black Point area by up to 10 acres through making two to five shallow scrapes which would be flooded with water from an existing artesian well. Los Angeles' waterfowl habitat restoration plan states that the three-phase project, as proposed in the waterfowl scientists' report, is not financially feasible without significant funding contributions from other sources. (R-DWP-20, p. 23.)

The DeChambeau Ponds and County Ponds areas are located on the DeChambeau Ranch which was acquired by the USFS on February 7, 1992. Prior to acquisition by the USFS, the ranch utilized water from Wilson Creek for irrigation and for maintenance of the water level in DeChambeau Ponds. The water from Wilson Creek has also served to maintain riparian and wet meadow habitat and some freshwater habitat in the County Ponds area. Due to the poor condition of the ditches from Wilson Creek, and opposition to continued use of surface water for maintenance of ponds, the USFS ceased irrigation of DeChambeau Ranch from Wilson Creek in 1992 or 1993. (T 759:22-765:22.) The absence of a gaging station to verify that USFS diversions from Wilson Creek were within its 12.6 cubic feet per second water right also contributed to the decision to stop diverting water from Wilson Creek for use on DeChambeau Ranch. (T 796:11-796:13.)

In 1992 the USFS, Ducks Unlimited and the MLC undertook a project to restore waterfowl habitat at the DeChambeau Ponds. The waterfowl scientists' report states that the project was

completed at a cost of $430,000 in September 1995 and that it includes 15 acres of ponds and 20 acres of seasonal meadows. (R-DWP-20, Appendix 1, p. 79.) Testimony at the hearing addressed the problems of unexpectedly high leakage from the ponds, the high cost of running propane pumps to supply groundwater to the ponds, the fact that some of the ponds were not yet full, the additional work still needed in 1997 to complete the project, and the relatively slight use of the ponds following restoration efforts. (T 773:21-778:11; T 779:24-780:11.)[39]

PMBP presented the testimony of Joseph Bellomo regarding recent work by local residents and the USFS to repair the ditch systems and headgates, and resume diversion of water from Wilson Creek for irrigation and wildlife enhancement at the DeChambeau Ranch. Following the resumption of water deliveries to DeChambeau Ranch as a result of the repairs, there was an increase in birds on the ranch, including ducks on a new shallow ponded area. The testimony indicates that a substantial amount of work was done at minimal cost over a period of three weekends with volunteer labor and USFS assistance. (T 1725:18-1726:10.) In addition to resuming irrigation of the ranch, the joint USFS/volunteer effort also makes it possible to deliver surface water from Wilson Creek to serve the troubled DeChambeau Ponds project and the surrounding area.[40] (T 1715:15-1726:1.) A letter from the USFS dated May 4, 1997 confirms that the USFS has resumed irrigation of DeChambeau Ranch in order to assess the feasibility of resuming use of the existing ditch system. The letter also reaffirms that any changes from the historic use of the USFS water right would be examined in a separate environmental analysis. (R-PMBP-42.)

[39] The testimony from the USFS indicates that, after being drained and dried up during the "restoration" process, some of the DeChambeau Ponds, which formerly held water, no longer held water. In an effort to get one pond to hold water again, the USFS pumped at a rate of 400 to 500 gallons per minute for 30 straight days to fill a pond which was about 1.25 acres in size. After spending about $10,000 for propane, the USFS stopped trying to fill the pond because it still had not sealed. The two ponds which provided functional waterfowl habitat during the 1996-1997 period (Ponds 1 and 2) were ponds which had not been "reworked." (T 776:10-777:14.)

[40] Mr. Bellomo testified that it would be very easy to get water from the repaired irrigation ditches to the DeChambeau Ponds, but that the USFS asked that water be kept away from the ponds until the bentonite work from the previous USFS/Ducks Unlimited/MLC project is complete. (T 1724:15-1725:7.)

The recent resumption of irrigation of the DeChambeau Ranch with water from Wilson Creek is consistent with USFS policy as set forth in the "Decision and Finding of No Significant Effect Concerning the Environmental Assessment for the DeChambeau Enhancement Project" entered on May 26, 1993. (R-PMBP-43.) Although the testimony establishes that the USFS did not irrigate the ranch from Wilson Creek for several years, the 1993 decision called for development and repair of the DeChambeau Ditch, with a pipeline, as well as development of wells to supply water for the DeChambeau Ponds. The decision commits up to 1.0 cfs of the USFS surface water right for use in the ponds and it also provides that:

> "a minimum of 11.6 cfs of the Forest Service's surface water right will remain available for the historic use of that water at the DeChambeau Ranch. Continuing to exercise that historic use should result in little or no change to the conditions of the riparian, wildlife and fisheries habitat that have developed as a result of that historic use of water at Wilson Creek, Wilson Creek ditch, DeChambeau Marsh, or the county ponds." (R-PMBP-43.)

PMBP also presented testimony from Mr. Bellomo about waterfowl at various locations in the north end of the Mono Basin. Based on 20 years of hunting experience in the Mono Basin. Mr. Bellomo testified that several ponded areas near springs on DeChambeau Ranch were "exceptional" areas for waterfowl, and that the County Ponds also provided good waterfowl habitat when they were receiving tailwater from the DeChambeau Ranch in the past. (T 1704:10-1708:17.) PMBP also presented testimony from John Frederickson regarding heavy waterfowl use, during windy weather, by several hundred ducks on a small pond on Wilson Creek near his house. (T 1695:25-1696:6.)

The record shows that the DeChambeau Ponds, County Ponds, and Black Point areas once provided considerably more waterfowl habitat than they have in recent years and that they have the potential to provide good waterfowl habitat in the future. The record also shows that the deterioration of the waterfowl habitat in those areas in recent years has been due in part to changes in the water diversion and land management decisions of the landowners. With improved maintenance of the ditches serving the DeChambeau Ranch, it appears that resumption of historic water uses on the DeChambeau Ranch, as called for in the 1993 USFS decision notice for the

DeChambeau Enhancement Project, could restore a significant amount of habitat for waterfowl and other wildlife. The strong local interest and availability of volunteer labor indicates that any necessary work on the ditch system and irrigation facilities serving DeChambeau Ranch can be done for a small fraction of the cost of the projects proposed in the waterfowl scientists' report for the DeChambeau Ponds and County Ponds area. (T 1721:6-1726:15.)

The record also shows that the cost of the work already completed at DeChambeau Ponds as part of the USFS, Ducks Unlimited, and MLC project has been very high for the amount of waterfowl habitat provided to date. In view of the even higher estimated cost of the County Ponds project as proposed in the waterfowl scientists' report, the SWRCB concludes that the proposed method of rehabilitating the County Ponds does not comply with the reasonableness and financial feasibility criteria specified in Decision 1631. Evidence in the record indicates that similar habitat could be restored at much lower cost through the exercise of existing water rights in accordance with the USFS policy as set forth in the 1993 decision notice on the DeChambeau Enhancement Project.

The type and extent of any additional waterfowl habitat restoration efforts on the USFS property at the north end of the Mono Basin will depend in part upon the success of the previous work at DeChambeau Ponds and the resumption of surface water use on DeChambeau Ranch. If the USFS decides to continue exercising its surface water rights in accordance with the 1993 decision notice, restoration of waterfowl habitat in the County Ponds area would be a reasonable project which could be done in a manner consistent with the provisions of Decision 1631.

The record indicates that repairs and improvements to the surface water diversion and distribution facilities which have historically served the DeChambeau Ranch from Wilson Creek can be done for a small fraction of the cost of developing and operating an entirely new groundwater pumping and distribution system to serve the County Ponds. In view of the potential value of the County Ponds and Black Point areas for waterfowl habitat, and the loss of habitat elsewhere in the Mono Basin due to Los Angeles' diversions, the SWRCB concludes that it would be reasonable to direct that, upon request of the USFS, Los Angeles provide financial assistance to the USFS for repairs

to water diversion and distribution facilities and for related waterfowl habitat restoration work at County Ponds and Black Point.

Although the subject of specific habitat enhancements at the County Ponds was not analyzed in 1993, the USFS Decision Notice for the DeChambeau Enhancement Project concludes that 11.6 cfs of the USFS water right remains available for use at the DeChambeau Ranch and that continuing to exercise that right can benefit riparian and wildlife uses at various locations including the DeChambeau Marsh and County Ponds. (R-PMBP-43, p. 2.) As the owner of the DeChambeau Ranch and the appurtenant water rights, the USFS has authority to determine how to manage its property at the County Ponds and Black Point areas, as well as responsibility for the costs of managing that property. Any financial contribution to the USFS which Los Angeles is directed to make pursuant to this order is limited to money needed for initial repairs or improvements to water delivery facilities and waterfowl habitat areas as may be requested by the USFS.

Based on the evidence regarding the joint work of the USFS and PMBP in the spring of 1997, and the availability of volunteer assistance from Mono County residents, the SWRCB concludes that any additional work necessary for restoring a reliable surface water distribution system serving the County Ponds area should be relatively minor. If the USFS develops a project requiring installation of a lengthy pipeline, the cost would increase but water loss could be significantly reduced. Although the costs of a viable restoration project at County Ponds may be substantially less, the SWRCB concludes it would be reasonable to require Los Angeles to contribute up to $250,000 for a waterfowl habitat restoration project at County Ponds in the event the USFS develops a project which requires that much financial assistance. A cost of $250,000 for restoration of 20 acres of waterfowl habitat at County Ponds would be approximately equal to the per acre cost of the De Chambeau Ponds project. De Chambeau Ponds is the most costly waterfowl habitat restoration project previously undertaken in the Mono Basin. Based on the cost estimates in the waterfowl habitat restoration plan, the SWRCB concludes that the responsibility

of Los Angeles for the reasonable costs for waterfowl habitat improvements at the Black Point area should not exceed an additional $25,000. (R-DWP-20, pp. 23 and 38.)[41] The primary decision regarding the extent and type of waterfowl habitat work that may be undertaken on USFS land lies with the landowner.

As an alternative to waterfowl restoration at the DeChambeau/County Ponds/Black Point complex, the waterfowl scientists' report states that additional freshwater habitat could be developed through making shallow "scrapes" in lake-fringing wetland areas. However, the scientists' report concludes that:

> ". . . we do not recommend developing scrapes at this time, as we believe that concentrating low impact engineering project improvements at the DeChambeau/County Ponds/Black Point complex is a preferred option to mitigate losses of open freshwater habitats. These areas have already undergone changes in hydrography by humans and serve as a better landscape for mitigation. We further recommend that development of these scrapes be reconsidered if monitoring indicates other habitat development does not produce desired results." (R-DWP-20, Appendix I, p. 75.)

The waterfowl scientists' report also discusses the statutes and policies governing habitat manipulation on: (1) land in the Mono Lake Tufa State Reserve composed of state-owned land adjoining Mono Lake below elevation 6,417 feet; and (2) the 117,000 acres which comprise the Mono Basin National Scenic Area. Both categories of land are subject to statutory restrictions and policies limiting development and other activities. The report states that large scale, visually obtrusive engineering projects generally are not consistent with either agency's management policies and that, on land within the Tufa State Reserve, "prescribed burns may be the only important and acceptable management tool that can be used to manipulate vegetation density and composition in order to increase freshwater waterfowl habitat." (R-DWP-20, Appendix I pp. 57 and 58.)

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[41] The cooperative project which the USFS undertook to restore waterfowl habitat at the DeChambeau Ponds provides an example of institutional cooperation between the federal government, other levels of government and private groups to restore waterfowl habitat on USFS land in the Mono Basin.

The waterfowl habitat restoration plan submitted by Los Angeles does not propose development of scrapes except in the Black Point area. In accordance with the waterfowl scientists' recommendation and the laws and policies governing the Mono Lake Tufa State Reserve and the Mono Basin National Scenic Area, the SWRCB concludes that Los Angeles should not be required to undertake or provide financial assistance for additional "scrapes" in lake-fringing wetlands areas at this time. However, in the event that the USFS decides not to undertake waterfowl habitat restoration at County Ponds or Black Point, and in the event that the relevant state and federal agencies determine that shallow scrapes or other unobtrusive projects should be undertaken on wetland areas adjoining Mono Lake, then it would be appropriate for Los Angeles to provide financial assistance for those projects up to the total amount of $275,000 discussed above for work at County Ponds and Black Point. Similarly, in the event that projects are completed in the County Ponds and Black Point areas at a cost to Los Angeles of less than $275,000, then it would be appropriate to make the remaining funds available for shallow scrapes or other unobtrusive waterfowl habitat projects which the relevant state and federal agencies may elect to undertake on their wetland property adjoining Mono Lake. In the event that the relevant state and federal agencies elect not to approve or pursue waterfowl habitat projects in wetland areas adjoining Mono Lake, then it would not be feasible to require Los Angeles to assist with those projects.

6.4.4 *Controlled Burning*

Based on positive responses by waterfowl and other birds to prescribed burning in other areas, the waterfowl scientists' report recommends development of a controlled burn program in order to maintain open water sites and increase the vigor of surrounding wetland vegetation. The report states that the specific methodology and time schedules for prescribed burns to achieve optimum vegetative response are not known. Therefore, the report recommends experimental prescribed burns at five year intervals to be followed by appropriate monitoring to assess the results. (R-DWP-20, Appendix I, pp. 60-71.)

The waterfowl habitat restoration plan submitted by Los Angeles proposes to burn 400 acres on an experimental basis. The initial burn would be followed by subsequent burns every five years

on a rotational basis of approximately 1,000 to 1,200 acres of marsh and seasonal wet meadow habitat near Mono Lake. The plan estimates that the cost will be approximately $12,000 for the initial burn and approximately $36,000 for subsequent burns. The plan also recommends "spot burning" of large accumulations of old woody debris in abandoned creek channels. Large accumulations of woody debris are thought to retard regeneration of desirable riparian vegetation and reduce areas of open water and ponds in abandoned creek channels. (R-DWP-20, pp. 25-27.)

The plan submitted by Los Angeles expresses "very strong concerns" about fire escaping from the project areas to areas where other types of habitat restoration is already occurring and states that Los Angeles will strictly adhere to all precautions required by the California Department of Forestry. The plan states that Los Angeles intends to include prescribed burns in the Mono Basin in the vegetative management plan being developed for other lands it manages in the eastern Sierra Nevada. (R-DWP-20, pp. 25 and 26.)

The testimony at the hearing generally favored use of prescribed burning, although there was some evidence that the benefits may be short-term and that the costs may be higher than estimated in the Los Angeles plan. (e.g. T 1484:8-1484:18; T 1504:21-1505:12.) More information about the effects of prescribed burning in the Mono Basin can be developed from review of the Department of Parks and Recreation prescribed burning program which was described in the written testimony of Dr. James Barry and Ranger David Carle. (R-SLC/DPR-100 and R-SLC/DPR-200.)

Controlled burning in the Mono Basin is subject to the regulatory authority of the California Department of Forestry and the Great Basin Air Pollution Control District, as well as the permission and cooperation of the landowner(s) where burning is to take place. The record before the SWRCB indicates that the controlled burning program proposed in the waterfowl habitat restoration plan would have benefits for waterfowl habitat and should be implemented if the necessary regulatory approvals are obtained and the participating agencies comply with provisions of the California Environmental Quality Act. This order directs Los Angeles to: (1) proceed with obtaining the necessary approvals for implementation of the proposed controlled burning

program; and (2) to provide the SWRCB Chief of the Division of Water Rights with a copy of any environmental documentation for the program. Following review of the environmental documentation, the Chief of the Division of Water Rights may direct Los Angeles to proceed with implementation of the controlled burning program pursuant to the requirements of Decision 1631. This order also authorizes the Chief of the Division of Water Rights to modify requirements related to the controlled burning program in the event that the necessary permits cannot be obtained, there is evidence the burning may cause significant adverse environmental effects or damage to nearby property, or other information indicates that the program should be revised.

6.4.5 *Control of Salt Cedar in Lake-Fringing Wetlands*

The waterfowl scientists' report states that "Salt Cedar . . . has the potential to negatively impact riparian and lake-fringing wetlands in the basin." (R-DWP-20, Appendix 1, p. 72.) Based on the waterfowl scientists' recommendations, the Los Angeles plan states that Los Angeles will assist and participate in a joint approach to the control of Salt Cedar and other exotic (i.e., non-native) plant species. (R-DWP-20, p. 27.) The SWRCB agrees with Los Angeles that other agencies with land management responsibilities in the Mono Basin should share in the obligation to control harmful exotic species. In the event that an interagency program to control exotic species in the Mono Basin is developed, this order directs Los Angeles to participate in the interagency efforts and to manage Los Angeles' land in the Mono Basin accordance with the provisions of the interagency exotic species control program.

6.4.6 *Monitoring Waterfowl Habitat Restoration and Waterfowl Population*

Decision 1631 required that the waterfowl habitat restoration plan include a method for monitoring the results and progress of habitat restoration projects. (Decision 1631, pp. 206 and 207.) The information developed through the monitoring program can be used to evaluate the results of increased streamflows, rising lake levels, waterfowl habitat restoration measures required by this order, and waterfowl habitat restoration efforts undertaken by other agencies and landowners in the Mono Basin.

The waterfowl habitat restoration plan submitted by Los Angeles focuses on monitoring the condition of waterfowl habitat in the Mono Basin rather than on a projected number of waterfowl. The proposed monitoring plan proposes to collect and evaluate information relevant to the following conditions:

(1) Hydrologic data including lake elevation data, stream flows and spring surveys.

(2) Lake limnology and secondary producers, including data on phytoplanton and brine shrimp population levels, as well as meteorological data and data on the physical and chemical environment of Mono Lake.

(3) Vegetation in riparian and lake-fringing wetlands. The plan proposes establishment of vegetation transects in lake-fringing wetlands and the establishment of photo points on permanent vegetation transects. The plan also proposes aerial photographs to be taken every five years.

(4) Waterfowl population surveys and studies including fall aerial counts, aerial photography, ground counts, and a waterfowl "time activity budget study." (R-DWP-20, pp. 27-29.)

The proposed monitoring activities are either already underway or are scheduled to begin during the first year after SWRCB approval of restoration plans. The estimated cost of the monitoring program is $140,000 per year, including $80,000 per year for monitoring of lake limnology and secondary producers.

An issue arose during the hearing regarding whether the monitoring program should be required to include alkali fly populations at Mono Lake. Decision 1631 concluded that a water level in Mono Lake at or near 6,390 feet will maintain the aquatic productivity of Mono Lake (including alkali flies) in good condition. (Decision 1631, p. 82.) The record from the 1997 hearing provides no basis for changing that conclusion. Therefore, this order does not direct Los Angeles to add alkali flies to the other monitoring work which it has proposed.

Los Angeles' plan proposes that aerial photographs on a 1:6,000 scale be taken every five years to be used in monitoring changes in vegetation. (R-DWP-20, p. 28.) The Los Angeles plan also proposes that aerial photography be undertaken in conjunction with its fall waterfowl population surveys. In accordance with the recommendations of the waterfowl scientists' report, Los Angeles proposes that aerial photography be done as part of the waterfowl population surveys once every other year. (R-DWP-20, p. 29.) However, the waterfowl scientists' report also states that the importance of waterfowl population data may justify aerial counts on an annual basis. The report estimates the annual cost of aerial flights and associated work for photography of waterfowl habitat at $5,000 per year. (R-DWP-20, Appendix I, p. 107.)

In view of the rapidly changing conditions in the Mono Basin, aerial photography of vegetation performed at five year intervals would not be sufficient for evaluation of more rapid changes and would be of limited value for use in adaptive management of ongoing restoration activities by Los Angeles or others. Annual aerial photography of waterfowl habitats also would provide more complete information for use in the waterfowl population studies proposed by Los Angeles.

In summary, the waterfowl habitat restoration monitoring plan presented by Los Angeles will provide useful information for evaluating the effect of changes in the Mono Lake area and planning future restoration activities accordingly. However, the plan proposed by Los Angeles should be modified to include annual aerial photography of waterfowl habitat areas for use in the waterfowl population surveys and for use in documenting the annual vegetative changes.[42] With that modification, the SWRCB believes that the waterfowl habitat monitoring plan is adequate and should be implemented upon entry of this order. If information developed through the monitoring plan shows a need for changes in monitoring activities, this order provides that requests for such changes may be submitted to the Chief of the Division of Water Rights.

[42] Although this order directs that aerial photography be undertaken on an annual basis, it does not require other changes in the more detailed work proposed in Los Angeles' plan for assessing changes in vegetation.

6.5 Conclusions Regarding Waterfowl Habitat Restoration Proposals

As anticipated in Decision 1631, the record continues to reflect general agreement that the rising water level at Mono Lake will provide the largest increase in future waterfowl habitat in the Mono Basin.[43] An average lake level of 6,392 feet and the streamflows required under Decision 1631 will result in large hypopycnal areas at the mouths of Rush Creek and Lee Vining Creek, new "hypopycnal rias" or lagoons extending back up the streams away from the lake, brackish water lagoons in some areas, and increased wetland and riparian areas along the streams. That process is occurring and will continue to occur pursuant to the provisions of Decision 1631.

The record also shows that the completion of the DeChambeau Ponds Enhancement Project and irrigation on the DeChambeau Ranch following USFS repairs to the DeChambeau Ditch in 1997 should increase the amount of fresh water waterfowl habitat in the Mono Basin from what was available when Decision 1631 was entered. This order directs Los Angeles to provide financial assistance for additional waterfowl habitat restoration work at the County Ponds and Black Point areas or other property in lake fringing wetland areas.

Numerous other waterfowl habitat restoration or enhancement projects are addressed in the testimony and exhibits. The SWRCB finds that the proposal to rewater the Rush Creek distributaries meets the criteria established in Decision 1631 to propose specific, reasonable, and feasible restoration measures with minimal potential for adverse environmental effects. In addition, this order directs Los Angeles to take steps necessary for implementation of a controlled burning program and to participate in interagency efforts to control Salt Cedar and other exotic plants if a basin-wide project is developed. Finally, the SWRCB finds that a comprehensive waterfowl and waterfowl habitat monitoring program will be useful in evaluating changing conditions for waterfowl in the Mono Basin due to the actions of Los Angeles and others. The monitoring program required by this order will also provide information which may be helpful for adjusting ongoing actions and planning future activities in a manner beneficial to waterfowl.

[43] The testimony by Dr. Reid indicates that there is not a current overcrowding problem at existing waterfowl habitat areas in the Mono Basin. (T 974:11-975:6.)

Based on recommendations in the waterfowl scientists' report regarding Mill Creek, Los Angeles filed Water Right Application 30565 to appropriate water from Wilson Creek and return it to Mill Creek for instream uses in that stream. The desirability of establishing waterfowl habitat along Mill Creek at the cost of reduced flows in Wilson Creek is an extremely complicated issue which cannot be resolved in the present proceeding, and which goes beyond considerations regarding waterfowl habitat. In any event, DFG contends that it is the appropriate agency to hold the water right application for restoration of flow in Mill Creek. (R-DFG-5, Attachment dated 4/8/96, p. 13.) The SWRCB recognizes that the Legislature has designated DFG as the state agency with authority and responsibility to undertake various wildlife habitat programs of the type that might benefit from providing additional flow to Mill Creek. Therefore, in this instance, the SWRCB concludes that, upon request of DFG, it would be appropriate for Los Angeles to assign Application 30565 to DFG for possible use in any Mill Creek restoration project which DFG may decide to pursue. As announced at the beginning of the hearing, issues regarding the merits of Application 30565 and potential approval of the application are not before the SWRCB in this proceeding.

7.0 SUMMARY AND CONCLUSIONS

Decision 1631 substantially resolved the long-standing debate over imposing restrictions on water diversions from the Mono Basin in order to protect environmental and public trust resources. In recent years, attention has shifted to examining other actions that could be taken to help restore various resources damaged through years of water diversions and in-basin development. The focus of this order is on the still narrower issue of determining the stream and waterfowl habitat restoration measures that Los Angeles should be required to implement or participate in under the provisions of Decision 1631 which amended the conditions governing Los Angeles' diversion of water under Licenses 10191 and 10192.

Just as the nature of the debate has evolved over the years, so too has the orientation and identity of the participants. All of the participants in the 1997 hearing were concerned with how best to restore Mono Basin streams and waterfowl habitat.[44] The record reflects a large degree of consensus regarding the stream restoration measures to be pursued by Los Angeles. None of the participants in the SWRCB hearing are on record as opposing the stream restoration aspects of the proposed settlement agreement. That proposal relies primarily on stream restoration and recovery occurring through natural processes with periodic high flows and proper land management to assist the recovery process. Based on the record before us, the SWRCB concludes that the stream restoration plan described in the settlement proposal, as modified by the provisions of this order, is in compliance with the criteria established in Decision 1631.

In order to avoid confusion with the channel maintenance flows established in Decision 1631, the higher flows required under this order for stream restoration purposes are referred to as "stream restoration flows." The stream restoration flows required under this order will apply on an interim basis pending future review by the SWRCB of the status of the stream restoration program. At that time, the SWRCB can determine whether it is appropriate to revise any of the long-term flow requirements established in Decision 1631. In addition, this order establishes qualitative criteria for use in determining when the stream restoration program may be terminated.

In contrast to the general consensus on stream restoration work, the record shows heated disagreement over the recommendations in the waterfowl scientists' report, the waterfowl habitat restoration plan submitted by Los Angeles and the "Waterfowl Habitat Restoration Foundation Conceptual Agreement" referred to in the proposed settlement. (R-DWP-68 and 68A.) The plan originally submitted by Los Angeles and the proposed settlement have generated stringent

[44] Despite the divergent positions of PMBP and the MLC in this proceeding, the record shows that one of the primary spokespersons and some of the members of PMBP are also members of MLC. (T 1318:21-1319:11.) Similarly, Decision 1631 cites the testimony of three long-time Mono Basin residents who were called as witnesses by the MLC in 1993 to testify with respect to historical waterfowl conditions in the Mono Basin. (Decision 1631, p. 112 and 113.) However, in the current proceeding the record shows that all three of those witnesses signed the petitions submitted by PMBP in opposition to the proposal of MLC and others to restore flow to Mill Creek at the expense of uses dependent upon flow in Wilson Creek. (R-PMBP-27.)

opposition from numerous individuals, local agencies and organizations, and witnesses with considerable expertise and many years of knowledge regarding conditions in the Mono Basin.

As discussed in Sections 6.0 through 6.5, the proposed approach to waterfowl habitat restoration reflected in the conceptual agreement and some of the waterfowl habitat restoration proposals presented in the original Los Angeles plan do not comply with the requirements of Decision 1631. Consequently, this order does not require implementation of all proposals addressed in the conceptual agreement or the original Los Angeles waterfowl habitat restoration plan. However, the extensive information developed in the preparation of the Los Angeles plan, together with the evidence presented at the hearing, provide a sufficient basis for the SWRCB to determine waterfowl habitat restoration measures which will comply with Decision 1631.

As recognized in the three waterfowl scientists' report and confirmed by other evidence in the record, by far the most significant restoration of waterfowl habitat in the Mono Basin will occur due to the rising water elevation at Mono Lake and the restoration of flows in the tributary streams as required by Decision 1631. The additional waterfowl habitat restoration measures to be undertaken pursuant to this order include: (1) reopening distributary channels in the Rush Creek bottomlands; (2) providing financial assistance for restoration of waterfowl habitat at County Ponds and Black Point or other lake-fringing wetland areas; (3) participation in a controlled burning program subject to applicable permitting and environmental review requirements; (4) participation in exotic species control efforts if an interagency program is established in the Mono Basin; and (5) a comprehensive waterfowl and waterfowl habitat monitoring program.

This order does not require Los Angeles to pursue proposals to rewater Mill Creek or to pursue other proposals to alter the historic uses of water presently in Wilson Creek. Those proposals could involve sweeping changes in established land management practices on public and private property and substantial changes in the exercise of established water rights held by parties not subject to SWRCB jurisdiction in the present proceeding. Any proposal to significantly alter the distribution of flows between Mill Creek and Wilson Creek must be preceded by an appropriate

environmental document which fully addresses potential environmental impacts. In accordance with Water Code sections 174, 275, and 1200 et seq., and article X, section 2 of the California Constitution, the SWRCB has authority to review the environmental impacts, public interest considerations, and reasonableness of any future proposals to restore flows to Mill Creek by diversion of water presently used elsewhere.

In accordance with Decision 1631 and the findings above, and in the exercise of its continuing authority over Licenses 10191 and 10192, the SWRCB approves the elements of the stream restoration and waterfowl habitat restoration proposals described below and concludes that Los Angeles should be required to implement the specified measures pursuant to the provisions of this order.

ORDER

IT IS HEREBY ORDERED THAT the Los Angeles Department of Water and Power (Licensee) shall implement stream restoration and waterfowl habitat restoration measures in accordance with the provisions below:

1. Licensee shall implement its February 29, 1996, Mono Basin Stream and Stream Channel Restoration Plan with the following revisions:[45]

   a. Stream Restoration Flows ("SRFs"):

      (1) Until the water elevation in Mono Lake initially reaches 6392 feet, Licensee shall provide SRFs in Rush Creek in the amounts and for the times specified in Table 1 attached to this order. Licensee need not provide any SRFs in dry years. In addition. Licensee may reduce the SRFs in dry/normal and normal years to the extent necessary to maintain the water exports allowed by Decision 1631. In dry/normal and normal years , Licensee shall seek to have between 30,000 and 35,000 acre-feet

[45] Many of the stream restoration provisions specified in this order are based upon provisions of the "Mono Lake Settlement Agreement" which was marked for identification as Exhibit R-DWP-68. Any references to "party" or "parties" in the provisions of this order regarding stream restoration measures refer to the parties to the Mono Lake Settlement Agreement.

of water in storage in Grant Lake at the beginning and the end of the run-off year. Licensee is not required to reduce storage in Grant Lake below 11,500 acre-feet in order to provide SRFs.

(2) After the water level in Mono Lake reaches 6392 feet, Licensee shall provide SRFs in Rush Creek, Lee Vining Creek, Parker Creek, and Walker Creek as set forth in Table 2. SRFs required under this paragraph shall remain in effect until the State Water Resources Control Board determines that the specified flows are no longer needed for stream restoration purposes. Upon termination of the SRFs required pursuant to this order, it may be necessary to modify the channel maintenance and flushing flows established in Decision 1631.

(3) The SRFs specified in this order are minimum flows and are in addition to the flow requirements set forth in Decision 1631. Licensee shall in all years attempt to maximize SRFs through coordination with Southern California Edison (SCE) and may encourage SCE to coordinate their spills and releases with spills from Grant Lake. Licensee's coordination with SCE may include granting SCE waivers from the 5 percent storage rule otherwise applicable to SCE facilities, developing annual operation plans in consultation with SCE, and encouraging SCE to coordinate the release of excess water from Tioga Lake with peak flows in Lee Vining Creek. In wet and extreme wet years, Licensee shall attempt to maximize SRFs in Rush Creek through operation of Grant Lake to maximize the probability and magnitude of spills with a target of holding 40,000 acre-feet of water in storage at Grant Lake on April 1. If Licensee is unable to achieve this target, it shall provide a written explanation to the Chief of the Division of Water Rights, and to other parties upon request, by May 1 of each year.

(4) Licensee shall not irrigate from Parker Creek and Walker Creek when providing SRFs in Rush Creek. If Licensee can anticipate peak flows in Parker Creek and Walker Creek, it shall not irrigate from Parker Creek during SRFs in Parker Creek or

from Walker Creek during SRFs in Walker Creek. Licensee shall use its best efforts to anticipate peak flows in Parker Creek and Walker Creek.

b. Stream Monitoring: Licensee shall implement its January 1997 stream monitoring plan (R-DWP-22 and R-DWP-23) with the following changes, subject to the provisions specified below:

(1) Licensee shall fund and implement a stream monitoring program to be carried out under the direction Bill Trush, Chris Hunter and such other independent scientists as may be approved by the Chief of the Division of Water Rights. Any member of the stream monitoring team may be replaced upon approval of the Chief of the Division of Water Rights.

(2) The stream monitoring team shall oversee implementation of the stream monitoring program including the following functions:

(a) The stream monitoring team shall evaluate and make recommendations, based on the results of the monitoring program, regarding the magnitude, duration and frequency of the SRFs necessary for the restoration of Rush Creek; and the need for a Grant Lake bypass to reliably achieve the flows needed for restoration of Rush Creek below its confluence with the Rush Creek Return Ditch. This evaluation shall take place after two data gathering cycles (as defined in the stream monitoring plan), but at no less than 8 years nor more than 10 years after the monitoring program begins. Licensee shall implement the recommendation of the monitoring team unless it determines that the recommendation is not feasible. Licensee shall have 120 days after receiving the recommendation from the monitoring team to determine whether to implement the recommendation of the monitoring team. If any party disagrees with Licensee's determination regarding implementation of the monitoring team's recommendation, the party may request review by the Chief of the Division of Water Rights who shall then decide the matter.

(b) The stream monitoring team shall evaluate the effect on Lee Vining Creek of augmenting Rush Creek flows with up to 150 cubic feet per second (cfs) of water from Lee Vining Creek in order to provide SRFs. The stream monitoring team shall also evaluate: (1) the reliability of attaining the specified SRFs in Rush Creek through augmentation with water from Lee Vining Creek; and (2) the need for a Grant Lake outlet after consideration of relevant factors including any material adverse impacts on Lee Vining Creek and reliability of providing SRFs in Rush Creek. Licensee shall implement the recommendation of the monitoring team unless it determines that the recommendation is not feasible. Licensee will have 120 days after receiving the monitoring team's recommendation to make this determination. If any party disagrees with Licensee's determination, the party may request review by the Chief of the Division of Water Rights who shall then decide the matter.

(c) The stream monitoring team shall prepare a written annual report by December 31 of each year which evaluates the results of the stream monitoring program and recommends any proposed changes in the stream restoration program and monitoring program. Among other things, this report shall include a quantitative comparison in chart or comparable form of the criteria specified in paragraph (5) below and the corresponding conditions measured in each stream for that year. The report shall discuss the progress since the start of the monitoring program toward achievement of the specified criteria on each stream. To the extent reliable information is available, the report shall also include a comparison with the stream conditions in existence prior to 1941 and the stream conditions in existence prior to resumption of flows in Rush Creek in 1983, Lee Vining Creek in 1986, Walker Creek in 1990, and Parker Creek in 1990. The report shall be provided upon request and without charge to any of the parties to the hearing which preceded this order.

(d) The stream monitoring team shall develop and implement a means for counting or evaluating the number, weights, lengths and ages of fish present in various reaches of Rush Creek, Lee Vining Creek, Parker Creek and Walker Creek.

(e) The stream monitoring team shall make a recommendation to the State Water Resources Control Board regarding any recommended actions to preserve and protect the streams.

(3) On or about April 1 of each year, Licensee shall submit to the Chief of the Division of Water Rights an annual report on the monitoring program. This report shall set forth the monitoring team's evaluation of results, the monitoring team's recommendations for any changes in the restoration program, and Licensee's position on such evaluation and recommendations.

(4) The stream restoration program may be terminated upon approval of the State Water Resources Control Board following public notice and opportunity for public comment. The State Water Resources Control Board will base its determination upon consideration of the following factors:

(a) Whether fish are in good condition. This includes self-sustaining populations of brown trout and other trout similar to those that existed prior to diversion of water by Licensee and which can be harvested in moderate numbers.[46]

(b) Whether the stream restoration and recovery process has resulted in a functional and self-sustaining stream system with healthy riparian ecosystem components for which no extensive physical manipulation is required on an ongoing basis.

(5) The State Water Resources Control Board's evaluation of the recovery and restoration of each of the four affected streams will include consideration of

[46] Information regarding conditions that existed prior to Los Angeles' diversions is set forth in Decision 1631.

information provided by the Department of Fish and Game and information provided by the monitoring team regarding the following factors:

(a) Acreage of riparian vegetation, including mature trees of sufficient diameter, height, and location to provide woody debris in the streams;

(b) length of main channel

(c) channel gradient

(d) channel sinuosity

(e) channel confinement

(f) variation of longitudinal thalweg elevation

(g) size and structure of fish populations

(h) other relevant factors

c. Rush Creek Return Ditch: Licensee shall upgrade the Rush Creek Return Ditch as specified in Licensee's Stream and Stream Channel Restoration Plan without the long-term loss of fish habitat in the ditch.

d. Large Woody Debris: Licensee shall implement the provisions in the Stream and Stream Channel Restoration Plan for placement of large woody debris. Thereafter, Licensee shall add large woody debris to Rush Creek and Lee Vining Creek on an opportunistic basis, based on recommendations of the stream monitoring team.

e. Reopening Channels: If channels reopened through restoration efforts become closed, the monitoring team shall decide on a case by case basis whether or not to again reopen them. Licensee shall implement the monitoring team's decisions subject to compliance with Fish and Game Code section 1601 et seq.

f. Sediment Bypass: Licensee shall hire experts approved by the Chief of the Division of Water Rights to analyze and design sediment bypass systems for Licensee's diversion structures on Walker Creek, Parker Creek, and Lee Vining Creek. The systems shall be

designed to bypass sediment on a year round basis. The experts shall also evaluate fish passage and the feasibility of rewatering Parker Creek and Walker Creek distributaries. The conceptual analysis and design, and the experts' recommendations, shall be completed as soon as practicable, but no later than March 1, 2000. Licensee shall have 120 days from receipt of the conceptual analysis and design to advise the Chief of the Division of Water Rights which sediment passage facilities it will construct. Facilities for Lee Vining Creek shall be included in the Licensee's proposal. If any party to the Mono Lake Settlement Agreement disagrees with Licensee's decision, then that party may ask the Chief of the Division of Water Rights to determine what sediment bypass facilities shall be constructed and to advise Licensee and other interested parties accordingly. Licensee shall comply with the determination of the Chief of the Division of Water Rights.

2. Licensee shall implement its Grant Lake Operations and Management Plan dated February 29, 1996, with the following changes:

   a. In years when flows in Rush Creek, Lee Vining Creek, Parker Creek, and Walker Creek exceed the minimum flows required under Decision 1631 and this order, Licensee shall regulate those flows, to the extent practicable, in a manner which reflects the impaired natural hydrograph for each stream at Licensee's point of diversion as specified in Table 1 on page *x* of the February 29, 1996 Grant Lake Operations and Management Plan. Nothing in this paragraph shall affect the minimum instream flows required by Decision 1631, the SRFs as required by this order, or Licensee's attempt to maximize the SRFs pursuant to the provisions of this order.

   b. Licensee shall make reasonable efforts to maintain flows in Rush Creek between October 1 and March 31 below 70 cubic feet per second in order to avoid potential injury to the Rush Creek fishery. The Chief of the Division of Water Rights may revise or eliminate this requirement upon written recommendation of the Department of Fish and Game or based upon other evidence that the requirement is no longer needed.

c. Licensee shall make data from all existing Mono Basin data collection facilities available on a same day basis on an internet web site. Licensee shall retrofit all its existing Mono Basin data collection facilities as necessary in order to comply with this requirement.

3. Licensee shall prepare an annual operations plan for covering its proposed water diversions and releases in the Mono Basin in accordance with the provisions on pages 103 and 104 of the February 29, 1996, Grant Lake Operations and Management Plan. If for any reason, Licensee believes it cannot meet the flow requirements specified in this order, it shall provide a written explanation to the Chief of the Division of Water Rights by May 1 of each year and shall inform the Chief of the Division of Water Rights of the flows that will be provided. If unanticipated events prevent Licensee from meeting the flow requirements specified in this order, it shall notify the Chief of the Division of Water Rights within 20 days and provide a written explanation of why the requirement was not met.

4. Licensee shall implement the following measures to help restore waterfowl habitat in the Mono Basin and to monitor the restoration and recovery of waterfowl habitat and waterfowl populations in the Mono Basin:

   a. Licensee shall implement the proposal to rewater distributary stream channels of Rush Creek in accordance with the provisions of its Mono Basin Waterfowl Habitat Restoration Plan dated February 29, 1996.

   b. Upon request of the United States Forest Service (USFS), Licensee shall provide financial assistance in an amount up to $250,000 for repairs and improvements to surface water diversion and distribution facilities and related work to restore or improve waterfowl habitat on USFS land in the County Ponds area. Upon request of the USFS, Licensee shall also provide financial assistance in an amount up to $25,000 for waterfowl habitat improvements on USFS land in the Black Point area. This order does not require Licensee to assume responsibility for management or decisions regarding management of federal land, nor does it require Licensee to pay for any environmental review or studies undertaken by the USFS in accordance with its land management decisions and responsibilities. The financial assistance to the USFS required by this order is limited to

funds needed to perform work which the USFS determines is appropriate to improve its water diversion and distribution facilities and related work to restore or improve waterfowl habitat in the County Ponds and/or Black Point areas.

(1) In the event that the USFS does not decide prior to December 31, 2004, to undertake waterfowl habitat restoration in the County Ponds area, and in the event that relevant state and federal agencies determine that shallow scrapes or other unobtrusive projects may be undertaken on wetland areas adjoining Mono Lake, then Licensee shall provide financial assistance in an amount up to $250,000 for unobtrusive lake-fringing waterfowl habitat restoration projects having all necessary state and/or federal approvals.

(2) In the event that the USFS does not decide prior to December 31, 2004, to undertake waterfowl habitat restoration at in the Black Point area, and in the event that relevant state and federal agencies determine that shallow scrapes or other unobtrusive projects may be undertaken on wetland areas adjoining Mono Lake, then Licensee shall provide financial assistance in an amount up to $25,000 for unobtrusive lake-fringing waterfowl habitat restoration projects having all necessary state and/or federal approvals.

(3) In the event that waterfowl habitat restoration projects at County Ponds and Black Point are completed at a cost to Licensee of less than $275,000, then Licensee shall make the remaining funds available to provide financial assistance for shallow scrapes or other unobtrusive waterfowl habitat projects which may be undertaken on wetland areas adjoining Mono Lake and which have all necessary state and/or federal approvals.

c. Licensee shall proceed with obtaining the necessary permits and approvals for the prescribed burning program described in its Mono Basin Waterfowl Habitat Restoration Plan dated February 29, 1996, and Licensee shall provide the SWRCB Chief of the Division of Water Rights a copy of any environmental documentation for the program. Following review of the environmental documentation, the Chief of the Division of Water

Rights may direct Los Angeles to proceed with implementation of the prescribed burning program pursuant to the requirements of Decision 1631 and this order. The Chief of the Division of Water Rights may modify the requirements related to the prescribed burning program in the event that necessary permits cannot be obtained, there is evidence the burning may cause significant adverse environmental effects or damage to nearby property, or other information indicates that the program should be modified.

d. Licensee shall implement the waterfowl and waterfowl habitat restoration monitoring plan as proposed in its Mono Basin Waterfowl Habitat Restoration Plan dated February 29, 1996 with the revisions and subject to the conditions specified below:

(1) The waterfowl and waterfowl habitat monitoring program shall be carried out under the direction of a waterfowl expert or experts approved by the Chief of the Division of Water Rights.

(2) The monitoring program shall include monitoring of hydrology, lake limnology and secondary producers, vegetation in riparian and lake-fringing wetland habitat, and waterfowl population surveys and studies in accordance with the provisions of the Waterfowl Habitat Restoration Plan dated February 29, 1996. Licensee shall also undertake annual aerial photography sufficient for use in annual waterfowl population studies and sufficient to identify annual changes in vegetation in waterfowl habitat areas. The aerial photography for waterfowl population studies shall include waterfowl in the Mono Basin, at Bridgeport Reservoir, and at Crowley Lake. The frequency of aerial photography can be modified upon a determination by the Chief of the Division of Water Rights that less frequent aerial photography is appropriate. Licensee shall provide data in a format compatible for use with Geographic Information Systems (GIS).

(3) Licensee shall file a report by April 1 of each year on: the status of Mono Basin waterfowl habitat restoration projects undertaken by the Licensee and others; the recovery of waterfowl habitat resulting from the stream flows and rising lake level due to limitations on water diversions imposed by Decision 1631; the results of

waterfowl population surveys and studies called for in Licensee's Waterfowl Habitat Restoration Plan; and other information relevant to the recovery or restoration of waterfowl and waterfowl habitat in the Mono Basin. The report shall be filed with the Chief of the Division of Water Rights and shall be provided upon request and without cost to any governmental agency with land management or regulatory responsibilities in the Mono Basin and to any of the parties to the hearing which preceded this order.

e. In the event that an interagency program is established for the control or elimination of Salt Cedar or other non-native vegetation deemed harmful to waterfowl habitat in the Mono Basin, Licensee shall participate in that program and shall report on any work which it undertakes to control Salt Cedar or other non-native vegetation. Licensee's report on work undertaken to control Salt Cedar or other non-native vegetation shall be included as a part of the annual report on waterfowl habitat restoration projects filed with the Chief of the Division of Water Rights.

5. Any disputes regarding interpretation or compliance with the requirements of this order may be resolved by the Chief of the Division of Water Rights. Upon a showing of good cause, the Chief of the Division of Water Rights shall have the discretion and authority to modify provisions of this order regarding measures for restoration of streams and waterfowl habitat in the Mono Basin, provided that the Chief of the Division of Water Rights shall promptly advise the State Water Resources Control Board of any such action(s). All actions by the Chief of the Division of Water Rights taken pursuant to this paragraph are subject to review by the State Water Resources Control Board and shall be preceded by notice to the parties and opportunity for comment. In the event of a decision requiring action prior to providing an opportunity for comment, the Chief of the Division of Waters Rights shall promptly notify the parties and provide an opportunity for comment on the action which was taken. The Chief of the Division of Water Rights shall advise the State Water Resources Control Board regarding when it would be appropriate to schedule a hearing to determine when the stream and waterfowl habitat restoration measures required under this order may be deemed complete.

6. Licensee shall serve as lead agency for purposes of conducting the environmental review of programs or actions which it intends to carry out pursuant to the provisions of this order, in accordance with the provisions of the California Environmental Quality Act (CEQA, Public Resources Code section 21000 et seq.). Licensee shall prepare a negative declaration, mitigated negative declaration, or environmental impact report for any projects it proposes to carry out which it determines are not categorically exempt from CEQA, and shall submit a copy of relevant environmental documents to the Chief of the Division of Water Rights. The Chief of the Division of Water Rights shall review any environmental document(s) submitted by Licensee. Licensee shall not proceed with any project which is not exempt from CEQA prior to: (1) notification that the Chief of the Division of Water Rights has reviewed the environmental document; and (2) notification from the Chief of the Division of Water Rights to proceed with the specified project in accordance with: the provisions of Decision 1631 and this order, any mitigation measures proposed by Licensee, and any other mitigation measures determined to be necessary by the Chief of the Division of Water Rights.

7. In the event Licensee provides financial assistance for waterfowl habitat restoration projects proposed by another governmental agency pursuant to the provisions of this order, Licensee shall not assume the environmental review responsibilities of the agency proposing the project. Prior to providing financial assistance pursuant to the provisions of this order for projects proposed by another governmental agency, Licensee shall inform the Chief of the Division of Water Rights of the specific project for which financial assistance is to be provided and shall provide a copy of relevant environmental documents to the Chief of the Division of Water Rights. The Chief of the Division of Water Rights shall review any environmental document(s) submitted by Licensee. Licensee shall not provide financial

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assistance for projects pursuant to this order prior to: (1) notification that the Chief of the Division of Water Rights has reviewed the environmental document; and (2) notification from the Chief of the Division of Water Rights that the proposed project is consistent with the requirements of Decision 1631 and this order.

CERTIFICATION

The undersigned, Administrative Assistant to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on September 2, 1998.

AYE:	John Caffrey James M. Stubchaer Mary Jane Forster John W. Brown
NO:	Marc Del Piero
ABSENT:	None
ABSTAIN:	None

Maureen Marché
Administrative Assistant to the Board

TABLE 1. STREAM RESTORATION FLOWS DURING TRANSITION PERIOD

CREEK	YEAR TYPE[1]	STREAM RESTORATION FLOW REQUIREMENT (Based on Flows Proposed in Settlement Agreement)[2]
RUSH	Extreme Wet	500 cfs (5 days) followed by 400 cfs (10 days)[3]
	Wet	450 cfs (5 days) followed by 400 cfs (10 days)[3]
	Wet/Normal	400 cfs (5 days) followed by 350 cfs (10 days)[3]
	Normal	380 cfs (5 days) followed by 300 cfs (7 days)
	Dry/Normal	250 cfs (5 days) when anticipated runoff is 75-82.5% of normal 200 cfs (7 days) when anticipated runoff is 68.5-75% of normal
	Dry	None
LEE VINING	Extreme Wet	Flow through conditions[3]
	Wet	Allow peak to pass[3]
	Dry/Normal, Normal, & Wet/Normal	Allow peak to pass[3]
	Dry	None.
PARKER	Dry/Normal through Extreme Wet	Flow through conditions[4]
	Dry	None
WALKER	Dry/Normal through Extreme Wet	Flow through conditions[4]
	Dry	None

[1] "Year Types" are based on 1941-1990 average runoff of 122,124 acre-feet. (See Grant Lake Operations and Management Plan, Table T.) The Year Types are established based on the LADWP April 1 preliminary runoff forecast and may be adjusted after the final May 1 forecast is issued. The Year Types are defined as follows:

Dry----------less than 68.5% of average runoff
Dry/Normal---------between 68.5% and 82.5% of average runoff
Normal ----------between 82.5% and 107% of average runoff
Wet/Normal---------between 107% and 136.5% of average runoff
Wet----------between 136.5% and 160% of average runoff
Extreme Wet--------greater than 160% of average runoff

[2] The Settlement Agreement identifies the above flows as "Channel Maintenance Flows." This order refers to the flows above as "Stream Restoration Flows" (SRFs) in order to distinguish between the flows required for stream restoration under this order and the Channel Maintenance Flows required by Decision 1631. The SRFs specified above are required during the transition period until Mono Lake reaches 6,392 feet. After Mono Lake reaches 6,392 feet, the SRFs in all four streams are as set out in Table 2. In Dry/Normal and Normal years, SRFs may be reduced to the extent necessary to maintain the quantity of water exports allowed under the provisions of Decision 1631. In Dry/Normal and Normal years, Licensee will attempt to hold 30,000 to 35,000 acre-feet in storage in Grant Lake at the beginning and end of the runoff year and will not be required to release water for SRFs that would reduce Grant Lake storage to below 11,500 acre-feet.

[3] Rush Creek SRFs may be augmented with Lee Vining Creek diversions (up to 50 cfs) in Wet-Normal, (up to 100 cfs) in Wet, and (up to 150 cfs) Extreme Wet years. If water is diverted from Lee Vining Creek to augment Rush Creek SRFs , the diversions should not start less than 7 days after the peak flow in Lee Vining Creek has been attained and the diversions should continue, exclusive of ramping, for a maximum of 15 days in Extreme Wet and Wet runoff years, and a maximum of 5 days in Wet/Normal runoff years. There shall be no diversion of Lee Vining Creek water to augment Rush Creek SRFs during Normal, Dry/Normal and Dry runoff years.

[4] Walker and Parker Creeks shall be allowed to flow without any diversions, either for irrigation from above or below the Lee Vining conduit or into the Lee Vining conduit during the period when Rush Creek SRFs are being made.

TABLE 2. POST-TRANSITION STREAM RESTORATION FLOWS

CREEK	YEAR TYPE[1]	STREAM RESTORATION FLOW REQUIREMENT (Based on Flows Proposed in Settlement Agreement)[2]
RUSH	Extreme Wet	500 cfs (5 days) followed by 400 cfs (10 days)[3]
	Wet	450 cfs (5 days) followed by 400 cfs (10 days)[3]
	Wet/Normal	400 cfs (5 days) followed by 350 cfs (10 days)[3]
	Normal	Normal I = 250 cfs (5 days); or Normal II = 380 cfs for 5 days and 300 cfs for 7 days[4]
	Dry/Normal	100 cfs (5 days)
	Dry	None
LEE VINING	Extreme Wet	450 cfs (5 days) followed by 350 cfs (10 days)[3]
	Wet	400 cfs (5 days) followed by 350 cfs (10 days)[3]
	Wet/Normal	350 cfs (5 days) followed by 300 cfs (10 days)[3]
	Normal	Allow peak flow to pass point of diversion
	Dry	None
PARKER	Dry/Normal through Extreme Wet	Allow peak flow to pass point of diversion
	Dry	None
WALKER	Dry/Normal through Extreme Wet	Allow peak flow to pass point of diversion
	Dry	None

[1] "Year Types" are based on 1941-1990 average runoff of 122,124 acre-feet and are established based on the LADWP April 1 preliminary runoff forecast and may be adjusted after the final May 1 forecast is issued. Year Types are defined as follows:

Dry----------less than 68.5% of average runoff
Dry/Normal----------between 68.5% and 82.5% of average runoff
Normal ----------between 82.5% and 107% of average runoff
Wet/Normal----------between 107% and 136.5% of average runoff
Wet----------between 136.5% and 160% of average runoff
Extreme Wet---------greater than 160% of average runoff

[2] The Settlement Agreement identifies the above flows as "Channel Maintenance Flows." This order refers to the flows above as "Stream Restoration Flows" (SRFs) in order to distinguish between the flows required for stream restoration under this order and the Channel Maintenance Flows required by Decision 1631. The SRFs represented in this table (Table 2) are required to be provided after Mono Lake reaches 6,392 feet. All flows in Table 2 are subject to modification by the SWRCB. Based on results of the monitoring program, it may also be necessary to modify the Channel Maintenance Flows established by Decision 1631.

[3] Rush Creek SRFs may be augmented with Lee Vining Creek diversions (up to 50 cfs) in Wet/Normal, (up to 100 cfs) in Wet, and (up to 150 cfs) in Extreme Wet years. If water is diverted from Lee Vining Creek to augment Rush Creek SRFs, the diversions should not start less than 7 days after the peak flow in Lee Vining Creek has been attained and the diversions should continue, exclusive of ramping, for a maximum of 15 days in Extreme Wet and Wet runoff years and a maximum of 5 days in Wet/Normal runoff years, after which the Lee Vining Creek flows should no longer be diverted to augment Rush Creek SRFs. There shall be no diversion of Lee Vining Creek water to augment Rush Creek SRFs during Normal, Dry/Normal and Dry runoff years. Walker and Parker Creeks shall be allowed to flow without any diversions, either for irrigation from above or below the Lee Vining conduit or into the Lee Vining conduit during the period when Rush Creek SRFs are being made.

[4] SRF releases for Rush Creek in Normal years are based on criteria in the Grant Lake Operations and Management Plan for bifurcating the Normal water year type (based on the May 1 runoff forecast) into a Normal I water year type (82.5% to less than or equal to 95% of average runoff) and a Normal II water year type (greater than 95% to less than or equal to 107% of average runoff).

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

ORDER WR 98-07

In the Matter of
Stream and Waterfowl Habitat Restoration Plans and
Grant Lake Operations and Management Plan
Submitted by the
Los Angeles Department of Water and Power
Pursuant to the Requirements of Water Right Decision 1631
(Water Right Licenses 10191 and 10192, Applications 8042 and 8043)

SOURCES: Rush Creek, Lee Vining Creek, Walker Creek, and Parker Creek

COUNTY: Mono

LICENSEE: City of Los Angeles

ORDER AMENDING PROVISIONS OF ORDER WR 98-05 APPLICABLE TO STREAM RESTORATION MEASURES AND DISMISSING PETITIONS FOR RECONSIDERATION

BY THE BOARD:

This order addresses three petitions requesting reconsideration of State Water Resources Control Board (SWRCB) Water Right Order WR 98-05, which was adopted on September 2, 1998. Order WR 98-05 requires the City of Los Angeles Department of Water and Power (Los Angeles) to implement specified stream restoration and waterfowl habitat restoration measures in the Mono Lake Basin.[1] The petitions for reconsideration were filed by the National Audubon Society and Mono Lake Committee (NAS/MLC), the California Department of Fish and Game (DFG), and California Trout, Inc. (CalTrout). The petitions for reconsideration

[1] Order WR 98-05 contains a detailed discussion of the development of the stream and waterfowl habitat restoration plans which were prepared by Los Angeles pursuant to the requirements of SWRCB Water Right Decision 1631. Order WR 98-05 also provides detailed findings and explanation in support of the stream and waterfowl habitat restoration measures required by that order.

address the subject of when the stream restoration program and stream restoration monitoring required by Order WR 98-05 may eventually be terminated.[2]

Subsequent to receiving the petitions for reconsideration, the SWRCB was advised by counsel for Los Angeles that Los Angeles and the petitioners have reached agreement on proposed modifications to provisions of Order WR 98-05 which address the subject of stream monitoring. The SWRCB received letters dated November 9, 1998, and November 13, 1998, regarding changes to Order WR 98-05. The letters describe proposed changes to Order WR 98-05 which are stated to be mutually agreeable to Los Angeles and the petitioners.[3] Enclosed with the November 13, 1998, letter are proposed revisions to Order WR 98-05. The suggested revisions propose: (1) use of previously identified "termination criteria" for stream monitoring on Rush Creek and Lee Vining Creek (Exhibit R-LADWP-68B); (2) a process for possible establishment of similar quantified "termination criteria" for stream monitoring on Parker Creek and Walker Creek; and (3) various other minor changes regarding the stream monitoring requirements of Order WR 98-05.

The petitioners have advised the SWRCB that, if the proposed modifications to Order WR 98-05 are adopted, then the petitioners withdraw all remaining issues raised by the petitions for reconsideration of Order WR 98-05. In addition, the petitioners have committed to dismissing the SWRCB as a party in the Mono Lake Water Rights Cases (El Dorado County, Superior Court Coordinated Proceeding Nos. 2284 and 2288).

This order concludes that, in view of the the petitioners' and Los Angeles' agreement to the proposed revisions and the public interest in avoiding further litigation, it is appropriate to revise the provisions of paragraph 1.b. ("Stream Monitoring") beginning on page 61 of Order WR 98-05 in accordance with the language at the end of this order. Due to the petitioners' withdrawal of

[2] No petitions for reconsideration were received regarding the waterfowl habitat restoration provisions of Order WR 98-05.

[3] The changes shown in the enclosure to the November 13, 1998, letter supersede similar proposed revisions in the letter dated November 9, 1998.

all other issues raised in their petitions for reconsideration, this order does not address those other issues.

Petitioners represent that the "termination criteria" adopted in paragraph 1.b.(5) of this order describe specified pre-1941 stream conditions for Rush Creek and Lee Vining Creek as set forth in Exhibit R-LADWP-68B.[4] This order provides for revising the quantified "termination criteria" when existing conditions make it infeasible to restore a pre-project condition or when new information provides a better understanding of how to evaluate stream restoration progress. The SWRCB intends that the "termination criteria" be used in determining when the stream monitoring program may be terminated.

The record in this matter establishes that it is not likely that all of the conditions described by the "termination criteria" will be met. As a result, Los Angeles will be required to continue the stream monitoring program for many years into the future until such time as revised requirements are established and met. During the course of the stream restoration program, stream restoration measures and the stream monitoring program may be revised to focus on outstanding restoration issues. The SWRCB would not ordinarily adopt "termination criteria" of the type established in this order for the reasons discussed in Order WR 98-05. However, it is reasonable to expect Los Angeles to monitor the restoration and recovery of the four affected streams for a long period of time. Furthermore, Los Angeles has expressed its willingness to be subject to the "termination criteria" set forth in this order for purposes of determining when required stream monitoring may be terminated.

Under the existing circumstances, the SWRCB finds that it is in the public interest to avoid further disputes or prolonged proceedings regarding the stream restoration requirements of Order WR 98-05. If any future disputes arise, they may be resolved with the benefit of the additional information developed during the course of the stream monitoring program. Adoption of the proposed "termination criteria" for use in determining when stream monitoring may be

[4] The "termination criteria" include estimates that have been or will be developed for acreage of riparian vegetation, length of main stream channel, channel gradient, channel sinuosity, channel confinement, "variation of longitudinal thalweg elevation," and size and structure of fish populations in Rush Creek and Lee Vining Creek.

terminated does not imply that achievement of the conditions described by the those criteria (as specified in Exhibit R-LADWP-68B or as supplemented and modified in the future) is required prior to termination of other aspects of the stream restoration program. The SWRCB's decision regarding the eventual termination of all aspects of the stream restoration program, except monitoring, will be based on the criteria discussed in Order WR 98-05 and set forth in paragraph 1.b.(4), subparagraphs (a) and (b) of this order.

The provisions of Order WR 98-05 affected by this order are modified as set forth below solely for the reasons stated herein. Except as expressly modified by this order, all findings and provisions of Order WR 98-05 remain unchanged.

ORDER

IT IS HEREBY ORDERED THAT paragraph 1.b. (beginning on page 61) of Order WR 98-05 is revised to read as follows:

"b. Stream Monitoring: Licensee shall implement its January 1997 stream monitoring plan (R-DWP-22 and R-DWP-23) with the following changes, subject to the provisions specified below:

(1) Licensee shall fund and implement a stream monitoring program to be carried out under the direction of Bill Trush, Chris Hunter, and such other independent scientists as may be approved by the Chief of the Division of Water Rights. Any member of the stream monitoring team may be replaced upon approval of the Chief of the Division of Water Rights.

(2) The stream monitoring team shall oversee implementation of the stream monitoring program including the following functions:

(a) The stream monitoring team shall evaluate and make recommendations, based on the results of the monitoring program, regarding the magnitude, duration and frequency of the SRFs necessary for the restoration of Rush Creek; and the need for a Grant Lake bypass to reliably achieve the flows needed for restoration of Rush Creek below its confluence with the Rush Creek Return Ditch. This evaluation shall take place after two data gathering cycles (as defined in the stream monitoring plan) but at no less than 8 years nor more than 10 years after the

monitoring program begins. Licensee shall implement the recommendation of the monitoring team unless it determines that the recommendation is not feasible. Licensee shall have 120 days after receiving the recommendation from the monitoring team to determine whether to implement the recommendation of the monitoring team. If any party disagrees with Licensee's determination regarding implementation of the monitoring team's recommendation, the party may request review by the Chief of the Division of Water Rights who shall then decide the matter.

(b) The stream monitoring team shall evaluate the effect on Lee Vining Creek of augmenting Rush Creek flows with up to 150 cubic feet per second (cfs) of water from Lee Vining Creek in order to provide SRFs. The stream monitoring team shall also evaluate: (1) the reliability of attaining the specified SRFs in Rush Creek through augmentation with water from Lee Vining Creek; and (2) the need for a Grant Lake outlet after consideration of relevant factors including any material adverse impacts on Lee Vining Creek and reliability of providing SRFs in Rush Creek. Licensee shall implement the recommendation of the monitoring team unless it determines that the recommenation is not feasible. Licensee will have 120 days after receiving the monitoring team's recommendation to make this determination. If any party disagrees with the Licensee's determination, the party may request review by the Chief of the Division of Water Rights who shall then decide the matter.

(c) The stream monitoring team shall prepare a written annual report by December 31 of each year which evaluates the results of the stream monitoring program and recommends any proposed changes in the stream restoration program and monitoring program. Among other things this report shall include a quantitative comparison in chart or comparable form of the criteria specified in paragraph (5) below and the corresponding conditions measured in each stream for that year. The report shall discuss the progress since the start of the monitoring program toward achievement of each of the specified criteria in paragraph (5) below on each stream. ~~To the extent reliable information is available,~~ The Report shall also include a quantitative comparison using the criteria specified in paragraph (5) below with the stream conditions in existence prior to 1941 as set forth in R-LADWP-68B and the stream conditions in existence prior to resumption of flows in Rush Creek in 1983, Lee Vining Creek in 1986, Walker Creek in 1990, and Parker Creek in 1990 and current conditions. The report shall be

provided upon request and without charge to any of the parties to the hearing which preceded this order.

(d) The stream monitoring team shall develop and implement a means for counting or evaluating the number, weights, lengths and ages of the fish present in various reaches of Rush Creek, Lee Vining Creek, Parker Creek and Walker Creek.

(e) The stream monitoring team shall make a recommendation to the State Water Resources Control Board regarding any recommended actions to preserve and protect the streams and shall recommend to the State Water Resources Control Board when stream restoration is complete.

(3) On or about April 1 of each year, Licensee shall submit to the Chief of the Division of Water Rights an annual report on the monitoring program. This report shall set forth the monitoring team's evaluation of results, the monitoring team's recommendations for any changes in the restoration program, and Licensee's position on such evaluation and recommendations.

(4) The stream restoration program may be terminated upon approval of the State Water Resources Control Board following public notice and opportunity for public comment. The State Water Resources Control Board will base its determination upon consideration of the following factors:

(a) Whether fish are in good condition. This includes self-sustaining populations of brown trout and other trout similar to those that existed prior to diversion of water by Licensee and which can be harvested in moderate numbers.[46]

(b) Whether the stream restoration and recovery process has resulted in a functional and self-sustaining stream system with healthy riparian ecosystem components for which no extensive physical manipulation is required on an ongoing basis.

[46] Information regarding conditions that existed prior to Los Angeles' diversions is set forth in Decision 1631.

~~(5)~~ The State Water Resources Control Board's evaluation of the recovery and restoration of each of the four affected streams will include consideration of information provided by the Department of Fish and Game and information provided by the monitoring team regarding the ~~following~~ factors in the following paragraph.

(5) Monitoring will be terminated on the State Water Resources Control Board's approval of the licensee's report that all criteria set forth in paragraph 1.b(5)(a), as hereafter amended, have been met for each stream subject to D-1631.

(a) The termination criteria are:

~~(a)~~ (1) ~~A~~acreage of riparian vegetation, including mature trees of sufficient diameter, height, and location to provide woody debris in the streams;

~~(b)~~ (2) length of main channel;

~~(c)~~ (3) channel gradient;

~~(d)~~ (4) channel sinuosity;

~~(e)~~ (5) channel confinement;

~~(f)~~ (6) variation of longitudinal thalweg elevation; and

~~(g)~~ (7) size and structure of fish populations.

~~(h) other relevant factors.~~

(b) The quantified criteria for paragraph 1.b(5)(a)(1)-(4) and (7) for Rush and Lee Vining Creeks are as stated in R-DWP-68B. The monitoring team will recommend quantified forms for 1b(5)(a)(5)-(6) within one year of this order for the approval of the Chief of the Division of Water Rights, after notice to the parties and consideration of any timely comments.

(c) Within one year of the date of this order the monitoring team will evaluate quantification of the criteria for Walker and Parker Creeks and, if such quantification is feasible, recommend quantified forms of the criteria for approval of the Chief of the Division of Water Rights.

(d) The criteria that have been quantified and those to be quantified will describe the qualities which existed in the streams subject to D-1631 before the licensee caused degradation to these streams. For the purpose of this order, those qualities are the 'pre-project conditions.'

(e) Each of these criteria will be stated separately for each stream.

(f) The monitoring program will evaluate progress towards achievement of each of these criteria. Where an existing condition precludes the restoration of a pre-project condition, a corresponding criterion which is functionally equivalent will be established.

(g) The monitoring team may, from time to time, reevaluate and if appropriate, recommend changes in the quantified forms of these criteria, on the basis of improved understanding of how to evaluate progress in restoring these streams.

(h) Notwithstanding the criteria in R-DWP-68B describing pre-project conditions for Reach 1 of Rush Creek, this order is not intended to compel the restoration or rewatering of Reach 1 of Rush Creek except as provided in paragraph 1.b (2)(a)."

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IT IS FURTHER ORDERED THAT the petitions for reconsideration of Order WR 98-05 are hereby dismissed.

CERTIFICATION

The undersigned, Administrative Assistant to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on November 19, 1998.

AYE:	John Caffrey James M. Stubchaer Marc Del Piero Mary Jane Forster John W. Brown
NO:	None
ABSENT:	None
ABSTAIN:	None

Maureen Marché
Administrative Assistant to the Board

June 4, 2019
Regular Meeting
Item # 2

Department Reports

Eastern Sierra Area Agency on Aging
Calendar of Events

Eastern Sierra Area Agency on Aging

A program serving Inyo and Mono Counties through Inyo County Health and Human Services

Taking a Stand against Elder Abuse
June 2019

Event	Date & Time	Location	Contact
Elder Abuse Awareness Proclamation-Inyo County Board of Supervisors	June 4th	Inyo County Courthouse Independence, CA	Inyo County Health and Human Services 760-872-4128
Elder Abuse Awareness Proclamation Mammoth Lakes Town Council	June 5th 4:00pm	437 Old Mammoth Rd Suite Z Mammoth Lakes	Mono County Adult Protective Services Krista Cooper, 760-924-1762
Mono County Annual Community Health Fair	June 7th 10:30am – 2:00pm	442 Mule Deer Rd Walker, CA	Community Service Solutions 530-495-2700
#WearPurpleDay	June 10th All Day	Inyo County & Mono County	Eastern Sierra Area Agency On Aging Long-Term Care Ombudsman Paulette Erwin, 760-872-4128
Elder Abuse Awareness Proclamation-Mono County Board of Supervisors	June 11th 9:00am	Mono County Courthouse Bridgeport, CA	Mono County Social Services 760-924-1762
Elder Abuse Event Bishop Tribal Elders Center	June 12th 12:45	350 N. Barlow Lane, Bishop CA	Bishop Paiute Tribe Bishop Tribal Elders Program Emma Williams, 760-873-3052
Elder Abuse Awareness Event and Purple Flag Ceremony Walker Senior Center	June 13th 12:30-2:00pm	399 Mule Deer Rd, Walker, CA	Mono County Senior Services Pat Espinosa, 530-495-2323
Workshop Guest Speaker: Lorraine Fox FROM BEHIND THEIR EYES	June 13th and 14th 2:00pm-4:00pm	682 Spruce Street Bishop, CA	Inyo County Health and Human Services 760-873-3305
Purple Flag Ceremony	June 14th Starting at 10:00am	682 Spruce Street Bishop, CA	Inyo County HHS Adult Protective Services Darcia Blackdeer-Lent,760-872-1727
Elder Abuse Awareness Health & Resource Fair	June 15th 10:00am – 2:00pm	682 Spruce Street Bishop, CA	Inyo County HHS Long Term Care Ombudsman Program Paulette Erwin, 760-872-4128
Elder Abuse Awareness Health & Resource Fair	June 24th 10:00am – 1:00pm	138 Jackson Street Lone Pine, CA	Inyo County HHS Long Term Care Ombudsman Program Paulette Erwin, 760-872-4128
Elder Abuse Training	June 27th 1:30pm– 2:30pm	Sterling Heights 369 E Pine Street Bishop, CA	Inyo County HHS Long Term Care Ombudsman Program Paulette Erwin, 760-872-4128

Participating Agencies in Elder Abuse Awareness Month

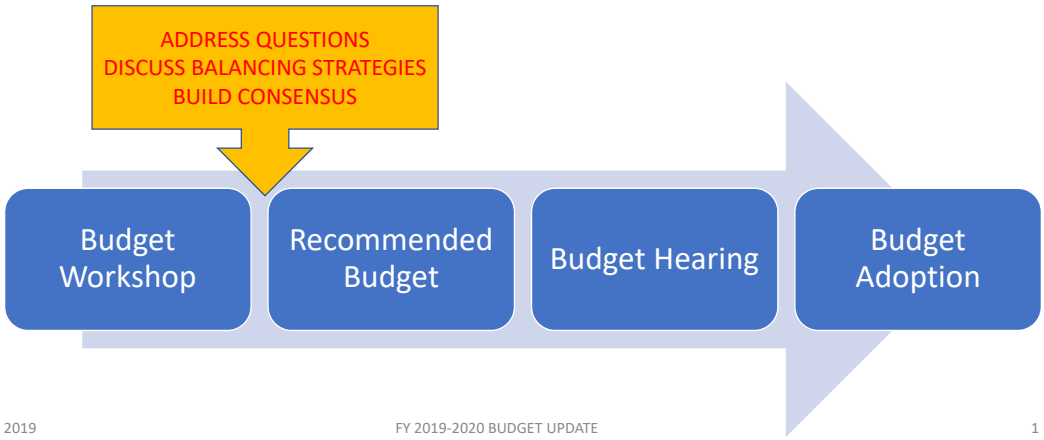
June 4, 2019
Regular Meeting
Item # 7d

FY 2019 – 2020 Budget Update

PowerPoint Presentation

Budget Update

June 4, 2019



1

DELAY BUDGET ADOPTION PROCESS?

	Original	#1	#2	#3
DAYS TO PUBLISH BUDGET	3 DAYS	13 DAYS	18 DAYS	22 DAYS
NO. OF BOARD MEETINGS	1	3	3	4
PUBLISH RECOMMENDED BUDGET	JUNE 7	JUNE 21	JUNE 28 3 BOS MTG	JULY 5 4 BOS MTG
PUBLIC HEARING	JUNE 18	JULY 2	JULY 9	JULY 16
BUDGET ADOPTION	JUNE 18	JULY 2	JULY 9	JULY 16

ROLLOVER BUDGET ON AGENDA – JUNE 11, 2019

2

3

NOW THAT YOU HEARD FROM DEPARTMENTS

- BOARD COMMITMENT – GF DEFICIT OF $3 MILLION?
  - $4,112,036 request EXCEEDS resources
  - Budgeting strategies – today's update will conclude with identifying CHOICES
  - Achieve CONSENSUS - direction from Board
- INDIVIDUAL BOARD COMMENTS – RESULTS OF TWO-DAY BUDGET WORKSHOP WITH DEPARTMENTS
- COUNTY NEEDS AND BOARD QUESTIONS

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WORKSHOP QUESTIONS AND COUNTY NEEDS

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- **Budget communications director in CAO Office?**
  - *How many months?*
- **Fund housing position now or wait?**
  - *Partial months?*
- **Contribute money to affordable housing reserve?**
  - *Current balance c/o to FY 2019-20 is $200,000*
- **Budget vacant Animal Control Officer I/II costing about $70,000 for a full year?**
  - *Budget partial year?*
  - *Collect, bill animal license fees*

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- **Move excess Ag Commissioner revenues to trust?**
  - *FY 2019 revenues = $68,000*
  - *FY 2020 revenues = $94,000*
  - *Difference = $26,000*
- **Digitizing BOS records? Now or at mid-year?**
  - *Assessor budget - $42,000 digitize 20,000 records*
- **CCP Allocation**
  - *Requested Budget – excludes $150,000 position funding*
  - *CCP Executive Committee – recommend FY 2019-20 Budget?*
    - *Meeting scheduled June 26, 2019*
    - *Board workshop*

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- **EMS expansion into the Tri-Valley area**
  - *FY 2019-20 Request $302,500*
  - *FY 2019-20 without capital expenditures $252,000*
  - *FY 2018-19 balance at 5-31-2019 = $65,112*
  - *Board update on activities – Revenue generation, Service delivery*
  - *5 Year plan?*
- ***EMS Fees***
  - Cost/Benefit – contracting with insurance companies
  - Increased fee for NR incidents
  - Resident subscription fee program

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- ***Critical* Fee Updates**
  - *Animal Control*
  - *Public Health, Environmental Health*
- **Information Technology Questions**
  - Move to New Building – budget additional equipment?
    - Increase appropriations?
    - Loan from Tech Refresh?
  - EMPG grant – up to $127,000 of radio equipment
    - Budget match? Salaries and benefits, equipment maintenance
  - Hire FTS so IT staff can do IT work?

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- **Social Services Questions?**
  - Meals on Wheels workshop (Social Services)
  - Senior Center – what are the needs? Impose Cap?
  - Public Guardianship – increased workload
- **Behavioral Health Questions?**
  - Staffing restructure – Adequate staffing to respond to MH needs?
  - Need for additional administrative position

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- **What to do with Conway property?**
  - Annual maintenance = $10,000
  - Capital needs = $18,000
  - Grazing plan?
  - Dispose of property?
- **Full costing of Facilities work for CSAs?**
- **Solid Waste – Succession planning?**
  - *Vacancies*
  - *Closing landfill(s)*
- **Campgrounds**
  - *Fees*
  - *Carryover balance of $76,000*

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- **Motor pool**
  - Sheriff vehicles – reimbursement from court realignment?
  - Status of ambulance replacements
  - CARB workshop
- **Capital Improvement Planning, Projects**
  - CIP fund has carryover of $360,000, identify by project
  - Benton ballfield
  - Water tanks
  - Walker senior center parking lot
  - Bridgeport museum
  - June Lake CC – windows $7,500
  - Budget summer projects
  - Address capacity to deliver projects

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- **Civic Center Project**
  - Unanticipated costs
    - Fees and permits
    - Construction manager
  - Logistics and cost of move, furniture
- **Jail Construction Project**
  - Restart project – achieve project establishment
  - Local match balance = $1,188,000 (General Fund)
  - CCP Contribution?

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- **Sheriff Questions**
  - Pay increase for court screeners
  - Address 4 frozen positions (2 DSA, 2 PSO)
  - Parking tickets?
  - Involvement in jail construction project
- **Agenda item – suicide response program**
  - Sheriff, BHS, EMS

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- **Economic Development / Tourism Questions**
  - Businesses paying a living wage?
  - Visitor study?
  - Business Improvement District consultant - $60,000
  - Fish or Air subsidy?
    - Fishery Commission - $25,000 discretionary request
    - Air subsidy request of $100,000
  - Community grants program – contribute set amount or specify allocation by types of community groups?
  - Tourism marketing – TOT 1%
    - Tourism commission budget recommendations
    - Carryover of $75,000 for emergencies
    - BOS policy on use of carryover balances

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STRATEGIES

Achieve GF Deficit of $3 Million

Current requested is $4,112,036

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GF Revenue Increases

Current Secured Property Taxes	$300,000
Transient Occupancy Taxes	100,000
Sales taxes	10,000
Prop 172 Public Safety	58,000
TOTAL REVENUE INCREASES	**$468,000**

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OTHER BUDGET SAVINGS

Adjust Pension UAL to actual	$200,000
Ag Commissioner	30,000
Farm Advisor	(2,540)
ESCOG	(10,000)
TOTAL BUDGET IMPACT	**$217,460**

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GF VACANT POSITIONS	STRATEGY	COST OF VACANCIES	POSSIBLE SAVINGS
ANIMAL CONTROL ATTENDENT (pt)		$16,571	$--
CADASTRAL MAPPER	3 months savings	107,068	26,767
ASSISTANT CAO (9 months)		154,094	--
COMMUNICATIONS DIR (9 months)		114,664	114,664
ELECTIONS ASSISTANT (pt)		12,433	--
PARAMEDIC II (frozen 6 months)		55,614	--
DEPUTY SHERIFF II	Recruitment underway Assume fill by 9/1	170,982	28,497
DEPUTY SHERIFF II	Assume fill by 11/1	131,231	54,680
JAIL SERGEANT	3 months savings	133,772	33,443
PUBLIC SAFETY OFFICER I	3 months savings	85,991	21,498
UNDERSHERIFF	6 months savings	255,775	127,888
TOTALS		**$1,238,195**	**$407,437**

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GF DISCRETIONARY REQUESTS	STRATEGY	REQUESTED	POSSIBLE SAVINGS
EMS EXPANSION	Exclude capital items	$252,000	$--
PROMOTE 2 PSOs TO 2 DSA I + Academy	Unfreeze 1 position,	344,614	172,307
UNFREEZE 2 PSO POSITIONS	fill vacancies first	176,166	176,166
TBID/BID CONSULTING	Explore viability first	60,000	40,000
PT ADMIN REFUNDS		20,000	--
TRI-VALLEY OVGWMA SUBSIDIES		46,000	--
FIRST FIVE – HOME VISITING		150,000	50,000
AFFORDABLE HOUSING	Use carryover?	200,000	200,000
TOURISM		10,000	--
COMMUNITY GRANTS		64,000	--
AIR SUBSIDY		100,000	100,000
FISH ENHANCEMENT		128,737	25,000
TOTALS		**$1,551,517**	**$763,473**

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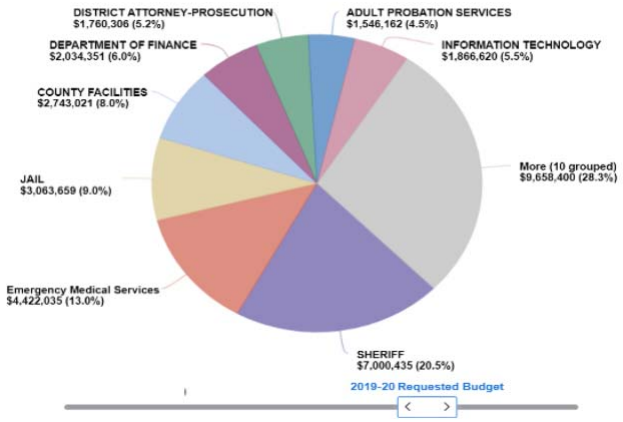
REQUEST DEPARTMENTS

Greater Budget Precision – Services and Supplies

- Priorities – such as
  - Strategic objectives
  - Preserve assets
  - Level of service
  - Preserve revenue
- Or, percentage of spending



STRATEGY RESULTS	REQUESTED	ADJUSTMENTS	TARGET
REVENUES	$36,675,000	$468,000	$37,143,000
FILLED POSITIONS	25,106,000	(200,000)	24,906,000
VACANCIES	1,238,000	(407,000)	831,000
SERVICES & SUPPLIES	10,906,000	(17,000)	10,889,000
DEBT SERVICE	48,000	--	48,000
TRANSFERS OUT	1,937,000	--	1,937,000
DISCRETIONARY REQUESTS	1,552,000	(763,000)	789,000
TRANSFER TO RESERVES	--	500,000	500,000
BUDGET SAVINGS (unallocated)	--	243,000	243,000
	$(4,112,000)	**$1,112,000**	**$(3,000,000)**

June 4, 2019
Regular Meeting
Item # 7f

Housing Mitigation Ordinance

PowerPoint Presentation / Mammoth Lakes Town Council Staff Report for Housing Mitigation Fee Schedule

HOUSING MITIGATION ORDINANCE DISCUSSION

June 4, 2019

Mono County Board of Supervisors

BACKGROUND

- 2017: Assessment completed, 120-170 units needed
- 2018: Toolbox established and prioritized
- 2018: Four nexus/fee studies completed for HMO
  - 1) ownership nexus fee study
  - 2) rental nexus fee study
  - 3) commercial linkage fee study
  - 4) inclusionary housing in-lieu fee study

ROLE OF HMO

- Part of the funding mix that provides resources for housing solutions
- Could implement the toolbox, or any housing programs for acquisition, rehabilitation, preservation or subsidy

FEE STUDIES

- Establishes maximum fee that could be charged for new units for rent, ownership, or commercial use
- Board can set fee at any level below the maximum

RECOMMENDED FEES

- **Residential**
  - Single family: 10% inclusionary requirement
  - Multi-family: 6.7% inclusionary requirement
  - Recommended fee: $9,400 per unit
- **Commercial**
  - Storage and Warehouses: $1/sq.ft.
  - Commercial: $2/sq.ft.
  - Industrial/Service Commercial: $1/sq.ft.
  - Visitor Accommodations: $4,000 per room (approx. $8/sq.ft., assuming 500 sq.ft. average room size)

Fees can be tied to a standardized
Index to provide market adjustments

OTHER JURISDICTIONS

- **Fees in place:**
  - Town of Mammoth Lakes (recently increased)
  - Nevada County (Truckee only)
  - Tuolumne County
  - Alpine County (Kirkwood)
- **No Fees:** Inyo County, City of Bishop, Sierra County, El Dorado County, Mariposa County

DISCUSSION POINTS

Is there interest in considering an updated HMO for adoption?

- If YES:
  - Are built units on-site preferred, or fee revenues? The mitigation structure can incentivize one or the other.
  - Should the fees be set at the recommended levels, or at different amounts?
  - Is the inclusionary requirement trigger of 10 units or more appropriate for single family residential, and 15 units for multi-family?
  - Does the County want to exempt (geographic) portions of the County?
  - Should the fees be tied to the Construction or Consumer Price Indices?

DISCUSSION POINTS

Is there interest in considering an updated HMO for adoption?

- If NO:
  - Is there a desire or intent to repeal the HMO altogether, or
  - Revisit the HMO closer to the next expiration date of the suspension

  Staff time is redirected from a long list of priorities in order to revisit the HMO decision, and eventually the nexus/fee studies may become too outdated to support adoption of a new ordinance.

Approved 4-1 vote 60 days effective

TOWN COUNCIL STAFF REPORT

Subject: Housing Impact Mitigation Fee Schedule Update

Meeting Date: April 17, 2019

Written by: Sandra Moberly, Community and Economic Development Director

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RECOMMENDATION:

Adopt the attached resolution making the required findings adopting a Housing Impact Mitigation Fee Schedule.

BACKGROUND:

Upon Councilmember request, a review of the housing fee was presented on December 5, 2018 and March 20, 2019. The Town Council received public comments regarding increasing the housing impact mitigation fees during both meetings. At the March 20, 2019 Council meeting the Town Council came to consensus and provided direction to staff on increases to the fees. The staff direction was to increase fees as shown in the table below:

Use Category	Use Types	Fee	Additional Information
Residential	Single family homes, multi-family (MF) units	~~$5,700~~ $6,000 per unit	Exemptions include additions, RMF-1 Zone MF projects of 4 or fewer units where average habitable s.f. does not exceed 1,300 per unit, legal secondary units, and apartments
Lodging	Hotels, motels	~~$3,700~~ $4,000 per room	Room = a hotel or motel key Fee includes accessory uses in a lodging project (e.g., retail, restaurant, conference, etc.)
Retail/ Restaurants	General retail, bars, cafés, restaurants, coffee shops	~~$2.00~~ 2.20 per gross square foot	Any non-residential development that would not contribute new demand for employment or housing (e.g., replacement of an existing use or addition on non-habitable s.f.) or would generate no more than one total new employee is exempt
Office	Offices providing accounting, advertising, architectural, counseling, research, graphic design, interior design, legal, and/or similar services	~~$2.00~~ 2.20 per gross square foot	
Light Industrial	Manufacturing, recycling facility	~~$1.00~~ 1.10 per gross square foot	
Service Uses	Banks, day care centers, maintenance services, medical services, personal services	~~$2.00~~ 2.20 per gross square foot	