POTENTIAL SIGNIFICANT IMPACTS AND MITIGATION MEASURES

A discussion of the potential significant impacts of the project and the required mitigation measures that have been incorporated into the project are presented below.

1. **Potential Impacts of Groundwater Pumping to Biological Resources under the Proposed Project:**

   • The proposed operation of the new Independence well to supply water to the project is not expected to cause significant adverse impacts to groundwater dependent vegetation, or other vegetation, or to non-LADWP wells in the project area.
   
   • The proposed operation of the new Independence well to supply water to the project is not expected to cause significant adverse impacts to other agricultural uses in the area.
   
   • The combined operation of the Independence well to supply the regreening project and the town water system, as proposed in the project, is not expected to cause significant adverse impacts to groundwater dependent vegetation, other vegetation, or non-LADWP wells in the project area.
   
   • The cumulative effects of operating the new Independence well for the regreening project and the town water system, as proposed in the project, in combination with the operation of other wells in the Independence area could cause significant adverse impacts to groundwater dependent vegetation, other vegetation, or non-LADWP wells in the project area.
   
   • Adverse impacts to groundwater dependent vegetation, or other vegetation, caused by the cumulative effect scenario could adversely affect wildlife habitat, air quality and aesthetics.

**Mitigation**

In regard to the construction and operation of new wells, Section VI of the Water Agreement provides in pertinent part (in italics):

**VI. NEW WELLS AND PRODUCTION CAPACITY**

The Department's current groundwater pumping capacity may be increased to provide increased operational flexibility and to facilitate rotational pumping. The Department may replace existing wells and construct new wells in areas where hydrogeologic conditions are favorable, and where the operation of that well will not cause a change in vegetation that would be inconsistent with these goals and principles.

Prior to the Department's construction of new wells, the location of each well shall be jointly evaluated by the Technical Group as to the potential impact of its operation on the valley's vegetation and environment. The evaluation shall include the drilling of one or more test holes, if needed, to develop information on the hydrogeologic conditions at the site, an inventory and classification of
vegetation that could be affected by the operation of the well, and the assessment of any other potential significant effects on the environment. Each new well will generally reflect optimum design parameters considering location, economics, and current practice in the industry. The Department will schedule and contract for construction of the well.

An aquifer test of up to seventy-two (72) hours duration shall be conducted on each new well. One existing or new monitoring well with appropriate perforations is necessary for the aquifer test. TheTechnical Group shall determine the location of this monitoring well and the need for any additional monitoring wells and the length of the aquifer test.

All data generated from the well construction process shall promptly be made available to the County. The County shall make application for and obtain any well construction permits required by the County or any subdivision thereof.

It is recognized that this new well program may result in a change in the areas that would be affected by pumping from existing wells. Therefore, additional monitoring of groundwater tables and vegetation shall be implemented as necessary outside of existing management areas and monitoring requirements shall be altered or created as necessary. The Technical Group shall designate a management area and monitoring site requirements for each new well. The siting and the operation of the well shall be consistent with these goals and principles.

Only one well initially shall be constructed and operated in any new area. No additional well(s) shall be installed in the area until the initial well has been operated for at least six (6) months at full intended operational capacity in order to gain information on the area and to minimize the potential for adverse impacts.

During this initial period of operation, the Technical Group shall monitor water levels and vegetation conditions in accordance with a jointly developed monitoring program. Additional wells may be installed by the Department in the area if operation of the initial well indicates no impacts that would be inconsistent with these goals and principles. Monitoring wells shall be installed as necessary to evaluate any potential effects of the operation of the new well or wells on wells not owned by the Department.

In addition to provision of the Water Agreement in regard to new wells, Section IV.B of the Green Book provides:

B. Guidelines for Drilling and Activating New Production Wells

As provided in Section VI of the Agreement, the Department may replace existing wells and construct new wells in areas where hydrogeologic conditions are favorable, and where the operation of the wells will not cause a significant change in vegetation that would be inconsistent with the goals and principles of the Agreement. The guidelines that will be followed when constructing and putting new wells into operation are set forth in this section.
1. Evaluation of Potential Impacts

The potential impact of operating new wells will be evaluated by the Inyo/Los Angeles Technical Group as follows:

a. Developing Site Hydrogeologic Information
   i. Reviewing existing nearby well logs, borehole logs, well test reports, water level data, and pumping data.
   ii. If available, running the appropriate groundwater flow model with all existing wells and the new well(s) pumping during a simulated worst-case, three-year drought (hydrologic conditions of runoff year 1977-78, which is the driest on record, repeated three times) to identify the areas with the greatest potential for surface effects due to pumping (area of 10 feet or greater drawdown).
   iii. Drilling one or more test holes if water level data is not adequate or not available.

b. Affected Vegetation Condition

   Inventorying and classifying the vegetation that could be affected by operation of the well (use vegetation inventories that reflect conditions from 1984 to 1987).
   i. Identifying vegetation that has the greatest chance of being adversely impacted by pumping (the area where drawdown is greater than or equal to 10 feet).
   ii. Identifying new sites for monitoring vegetation, soil moisture, and water level as necessary.

c. Identification and assessment of other potential significant effects on the environment:
   i. Springs (e.g., reduced flow resulting in significantly less water available to surrounding vegetation).
   ii. Flowing wells (e.g., reduced flow resulting in significantly less water available to surrounding vegetation).
   iii. Private wells (e.g., lowered water levels resulting in significantly increased pumping costs and/or impairment of operation).

The Technical Group has not performed the analyses and evaluations required by the Water Agreement and the Green Book on the proposed Independence well. Before the new well is operated to supply water to the town water system or to supply water to the Independence East Side Regreening Enhancement/Mitigation Project, the required evaluation of the operation of the well will be performed. In addition, the required evaluations will be performed before the new well is constructed, and once constructed, the required evaluation will be performed before the well is operated to supply water to the town water system or regreening project.

As envisioned by the above-quoted provisions of the Water Agreement and the Green Book, construction and operation of the new well should not result in significant adverse impacts to the
environment. However, should the operation of this well cause a significant impact, or the operation of this well in combination with the operation of other wells in the Independence area, cause a significant adverse impact to the environment, the Water Agreement sets forth requirements for mitigating an adverse impact to groundwater dependent vegetation, and for mitigating any other significant impact to the environment, and for impacts to non-LADWP wells.

Under Section III of the Water Agreement, the overall goal is to manage the water resources within Inyo County to avoid certain described decreases and changes in vegetation and to cause no significant effect on the environment which cannot be acceptably mitigated while providing a reliable supply of water for export to Los Angeles and for use in Inyo County.

Section IV.A of the Water Agreement addresses management goals and mitigation responsibilities. Section IV.A provides in pertinent part:

**IV. VEGETATION MANAGEMENT GOALS AND PRINCIPLES**

The management goals and principles for each vegetation management type are described below.

A. VEGETATION MANAGEMENT

**Type A Vegetation Classification**

This zone, composed of vegetation with a calculated evapotranspiration rate approximately equal to precipitation, is not affected by groundwater pumping or by changes in surface water management practices since such vegetation survives on available precipitation.

**Type B, C, and D Vegetation Classifications**

The goal is to manage groundwater pumping and surface water management practices so as to avoid causing significant decreases in live vegetation cover, and to avoid causing a significant amount of vegetation comprising either the Type B, C, or D classification to change to vegetation in a classification type which precedes it alphabetically (for example, Type D changing to either Type C, B, or A vegetation).

Methods that will be used to achieve this goal include an extensive monitoring program, discretion vested in the Technical Group and/or Standing Committee to take appropriate action, provisions for automatic turning off of wells (see section V), provisions for determining whether significant decreases or changes in vegetation have occurred (see Section IV.B), provisions for mitigation, and provisions for dispute resolution.

Type B, C, and D classifications are each comprised of several vegetation communities defined in the "Land Classification and Natural Community Descriptions for the Owens Valley" (1987). It is recognized that a change in vegetation from one of these communities to another, as long as the change is not to a community that would fall outside the same classification will not be considered significant. A decrease in live salt cedar cover in the Type D classification generally will not be considered significant.

Notwithstanding the fact that wells may have been turned off due to insufficient soil moisture, any decreases or changes in vegetation that are
determined to be significant by the Technical Group shall be mitigated as soon as a reasonable and feasible mitigation plan is developed by the Technical Group and implemented by the Department. In developing this mitigation plan, the Technical Group shall consider the potential environmental and water supply effects of any proposed plan. Implementation of this plan shall be commenced by the Department within twelve (12) months of a determination by the Technical Group or by dispute resolution that a significant decrease or change has occurred.

A mitigation plan developed by the Technical Group could include restoring perennial vegetation cover in an area where there has been a significant decrease in live perennial vegetation cover, and/or restoring vegetation in an affected area to a vegetation community that falls within the classification shown on the relevant vegetation management map as soon as it can be reasonably restored. Mitigation activities could include, but are not limited to, surface water application or reduction in groundwater pumping (if groundwater pumping has not already been terminated in the affected area in accordance with the provisions of Section V).

In addition to mitigation prescribed by the Water Agreement for significant decreases or changes in vegetation, Section III.F of the Water Agreement provides in pertinent part:

… any significant effect on the environment of Inyo County attributable to groundwater pumping or to Department surface water management practices, shall be mitigated as soon as a reasonable and feasible mitigation plan is developed. Implementation of this plan shall be commenced within twelve (12) months of a determination by the Technical Group or by dispute resolution that a significant effect on the environment has occurred.

Section IV. B of the Water Agreement addresses "significance." Section IV. B provides in pertinent part:

**B. DETERMINATION OF "SIGNIFICANT" AND "SIGNIFICANT EFFECT ON THE ENVIRONMENT**

In determining (1) whether a decrease in live vegetation cover is "significant," or (2) whether a change in vegetation from one vegetation classification to another is "significant," or (3) whether a "significant effect on the environment" has occurred, it is recognized that it is infeasible to develop definitions of these terms for use in all areas and under all conditions. Therefore, a determination of what is a significant decrease or change in vegetation and of what is a significant effect on the environment will be made by a case by case analysis.

The first step in this case by case analysis is to determine whether the decrease or change can be measurably demonstrated. If so, it must then be determined by the Technical Group if the decrease or change, or if a potential significant effect on the environment, is or is not attributable to groundwater pumping and/or to surface water management practices.
Decreases and changes in vegetation and other environmental effects shall be considered "attributable to groundwater pumping, or to a change in surface water management practices," if the decrease, change, or effect would not have occurred but for groundwater pumping and/or a change in past surface water management practices. This shall be determined by an analysis of all relevant factors, including a comparison of the affected area with an area of similar vegetation, soils, rainfall, and other relevant conditions where such a decrease, change, or effect has not occurred, or has not occurred to the same degree.

If the decrease, change, or effect is determined to be attributable to groundwater pumping or to changes in past surface water management practices, the Technical Group then shall determine whether the decrease, change, or effect is significant. In making this determination, the factors to be considered by the Technical Group shall include, but are not limited to:

- The size, location, and use of the affected area;
- The degree of the decrease, change or effect within the affected area;
- The permanency of the decrease, change, or effect;
- Whether the decrease, change, or effect causes a violation of air quality standards;
- Whether the decrease, change, or effect affects human health;
- Available factual and scientific data;
- Whether effects of the decrease, change, or effect are limited, but the incremental effects are substantial when viewed in connection with decreases or changes in other areas that are attributable to groundwater pumping or to changes in surface water management practices by the Department;
- Enhancement and mitigation projects that have been implemented by the Department.

Under the Water Agreement, if a significant decrease or change in vegetation occurs or if there is another significant impact on the environment, the impact must be mitigated. Section III. C of the Water Agreement defines the term "mitigation" as follows:

C. DEFINITIONS. Unless otherwise specifically defined in these goals and principles, the terms "mitigation" and "feasible" are to be defined as under the California Environmental Quality Act ("CEQA") as of July 1, 1989. The definition of these terms as set forth in CEQA and the Guidelines for Implementation of CEQA on July 1, 1989 are:

Mitigation Guidelines:

1. Avoiding the impact altogether by not taking a certain action or parts of an action,
2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation,
3. Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment,
4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action,
5. Compensating for the impact by replacing or providing substitute resources or environments.

(Guidelines for Implementation of the California Environmental Quality Act - Section 15370)

As described above, the Technical Group is required to develop and implement mitigation within twelve (12) months of a determination by the Technical Group or by dispute resolution that a significant decrease or change in vegetation has occurred or that a significant effect on the environment has occurred. Section I.C.2 and Section I.D of the Green Book, the technical appendix to the Water Agreement, describes how a mitigation plan is to be developed and implemented. Section I.C.2 and Section I.D provide as follows:

2 Development and Implementation of a Mitigation Plan

If it is established that there has been a significant decrease in live vegetation cover, or a significant amount of vegetation has changed from one vegetation classification to a lower classification, or any other significant effect on the environment has occurred, then any such significant impact will be mitigated as soon as a reasonable and feasible mitigation plan is developed. The Technical Group is responsible for developing a mitigation plan for the affected area, and the Department will commence implementation of the plan within 12 months after the significant impact has been established. A written mitigation plan will be prepared by the Technical Group and submitted to the Standing Committee during this 12-month period; however, the Technical Group is not precluded from implementing any necessary interim mitigation measures during this period.

a. In developing a mitigation plan, the Technical Group shall first establish a goal for the plan in conformance with the goals and principles of the Agreement. Thus, if there has been a significant decrease in live perennial vegetation cover or a change in a significant amount of vegetation from one classification to another, a primary goal of the plan would be to avoid causing further decreases or changes.

Generally, if there has been a significant decrease in vegetation live cover, the preferred goal of the plan would be to restore the same type of perennial vegetation cover in the affected area; and, if there has been a significant change in vegetation type, the preferred goal of the plan would be to restore vegetation to a vegetation community that falls within the type classification depicted on the vegetation management map. If any other significant effect on the environment occurs, the goal of the plan would be to reduce the impact to a level that is no longer significant.

Generally, compensatory mitigation (compensating for an impact to the environment by improving or enhancing an area located away from the affect area) would not be a preferred goal of a mitigation plan.
b. In selecting the means of achieving the goals of the mitigation plan, the Technical Group will consider the feasible alternatives. When it is determined that the expertise of a consultant would be beneficial, such consulting services may be retained.

i. Alternative means of achieving the mitigation goal that will be considered include:

- If the impact is attributable to groundwater pumping, cessation of groundwater pumping from wells that affect the impacted area would be the first consideration for mitigation.
- Also considered will be a change in the future management of groundwater pumping from the well to avoid repetition of the impact.
- Surface water application to repair, rehabilitate, and/or restore the impacts will be considered as an alternative. Any water supply needed for the proposed mitigation shall be evaluated as to its potential for inducing further adverse environmental impacts.
- Revegetation of the affected environment shall be considered as an alternative. Generally, the preferred goal of revegetation would be to restore vegetation cover to the ecological viability which existed prior to the impact. A primary consideration in revegetation would be to use native species which grow in Owens Valley. Revegetation efforts will incorporate procedures to control weeds and fugitive dust. Full restoration may require a long period of time.

c. As part of each mitigation plan, the Technical Group shall develop a reporting and monitoring program. At least once per year, the Technical Group shall report, in writing to the Standing Committee, on the effectiveness of the mitigation plan in achieving its goal.

Should a mitigation plan fail to substantially achieve its goals, the Technical Group shall implement alternative, feasible mitigation, if any exists, that will achieve the goals. If no such alternative exists, a new mitigation goal will be developed and implemented for the affected area. The Technical Group shall report the change in writing to the Standing Committee, together with reasons for the change, and a new mitigation monitoring and reporting program will be adopted by the Technical Group.

d. If, through seasonal water balance calculations or through other means, the Technical Group projects that significant decreases or changes in vegetation could occur, the Technical Group will take such action as it deems feasible and necessary to avoid the projected impact. Such action would be in addition to the provisions for automatic well turn-off.

D. Other Vegetation

For management purposes, vegetation in Owens Valley has been divided into five management classifications based on the dominant vegetation species. However,
each vegetation classification is comprised of vegetation species other than the dominant species.

1. Management

Certain vegetation of significant environmental value are not shown on the management maps because they are not the dominant species. This vegetation will be identified by the Technical Group for monitoring purposes on overlays to the management maps. Areas of this vegetation include riparian vegetation dependent upon springs and flowing wells, stands of tree willows and cottonwoods, and areas with rare or endangered species. The monitoring sites will be located in areas where there is a potential for impact to such vegetation by groundwater pumping or changes in surface water management practices (although certain areas of rare or endangered species will be monitored, these areas will not be publicly identified on the management maps in the interest of protecting such vegetation).

If, through field observation, monitoring, and other evaluations, it is determined that groundwater pumping or changes in surface water management practices has resulted in severe water deficit stress that could cause a significant decrease or change in this vegetation, the Technical Group will take such action as is feasible and necessary to prevent significant impacts and to reduce any impacts to a level that is not significant.

2. Monitoring

Monitoring at each identified site will consist of one or more field visits during the period when groundwater pumping and changes in surface water management practices could affect such vegetation in an attempt to obtain advance knowledge of potential water stress. Shallow piezometers will be installed and monitored when and where deemed necessary (for rare and endangered species, only a qualitative assessment will be made in order to minimize the disturbance from monitoring). If an impact is suspected, more intensive measurements, such as vegetation transect procedures, would be undertaken as determined appropriate by the Technical Group.

3. Mitigation

The procedures set forth in Section I.C will be used to determine whether an impact to vegetation of concern is measurable, attributable to groundwater pumping or changes in surface water management, and is significant, and thus, if a mitigation plan should be developed and implemented.

Significance after Mitigation

The overall goal of managing the water resources within Inyo County is to avoid certain described decreases and changes in vegetation and to cause no significant effect on the environment which cannot be acceptably mitigated while providing a reliable supply of water for export to Los Angeles and for use in Inyo County.
2. Potential Impacts of Pumping the proposed Independence well on Hydrology and Water Quality.

- The operation of the new Independence well is not expected to substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.
- The operation of the new Independence well is not expected to adversely affect downstream water supply for agricultural use.

Mitigation
Refer to the response to Item 1 regarding the evaluation of hydrogeologic conditions in the area.

Agency Responsible for Implementing and Monitoring the Mitigation Measure
LADWP and the County of Inyo, as provided in the Water Agreement.

3. Potential Impacts of the proposed project to Land Use and Planning

- The Inyo County General Plan designates the zoning for this 30-acre regreening project as Residential Medium-High Density. The Inyo County Board of Supervisors could make a determination to change the usage for the approximately 30-acre regreening project and is currently evaluating that option.

Mitigation
None required.

Agency Responsible for Implementing
LADWP and the Inyo County Board of Supervisors shall determine the usage for the approximately 30-acre parcel.

4. Potential Impacts of Constructing the Independence Well, Water Pipelines, Power Service and Irrigation Piping

The construction of the well, water pipelines, power service and irrigation system that are a part of the proposed project could cause short term adverse impacts.

Analysis
The new Independence well will be drilled by a licensed Contractor. During the construction there would be an increased noise levels and a small increase in dust and construction equipment emissions.
Approximately 200 feet of pipeline will be installed from the new well location to Clay Street to connect into the existing town water system. The pipe installation will be performed by LADWP and Inyo County. Inyo County will be responsible to build, operate and maintain chlorination injection equipment for potable water usage. Inyo County will connect the piping to the existing water distribution system.

Power service will be installed by LADWP from existing power poles in Clay Street. One or two additional power poles may be required to provide power to the well site.

Based on preliminary findings, the proposed project should have no direct impact on archeological or cultural resources. As required by Federal and State law, if any unidentified cultural resources are encountered during the implementation of this project, including pipeline construction, work will be halted until a licensed archaeologist is consulted.

The Independence East Side Regreening project will be leased for livestock grazing and growing of native vegetation. The lessee may install irrigation piping and small ditches to water the area.

**Mitigation Measures**

- Fugitive dust emissions from construction activities shall be controlled by, but is not limited to, the use of chemical stabilizers, surface coverings, water trucks, and water sprays. The frequency of site watering and other dust control measures will depend on weather conditions, but must be sufficient to minimize visible dust plumes. Construction activities shall be monitored on a daily basis, including spoil piles, access roads, and haul roads, to verify that dust emissions are kept to a minimum.
- A construction equipment traffic route will be established from Highway 395, to Market Street, to Clay Street and the project site. Only construction equipment necessary to construct and operate the project will be utilized at the project site.
- Construction equipment shall be inspected daily to ensure that all equipment is free of leaking fuel, hydraulic fluid and cooling liquids.
- If any hazardous material is stored at the project site, it must be stored with appropriate secondary containment.
- Construction activities shall be monitored to ensure that all debris and hazardous materials are prevented from contaminating the soil and/or entering water of the state.
- Construction shall be monitored to ensure that all activities are performed within approved local ordinance time periods to minimize noise levels. Noise levels shall be monitored during construction and operation. If noise level standards are exceeded noise barriers shall be constructed to lower the noise levels. Permanent noise barriers could include barrier fencing or a building enclosure over the well.

**Agency Responsible for Implementing and Monitoring the Mitigation Measure**

LADWP and the County of Inyo.
5. Potential Impacts Caused by the Independence East Side Regreening Enhancement/Mitigation Project

Water will be supplied to the enhancement/mitigation project by the proposed well. The project description describes the size of the regreening area as approximately 30 acres. Under the proposed project, the regreening area will be supplied at 3 acre-feet per acre per year.

Under the proposed project, the regreening enhancement/mitigation project will be supplied with water as follows:

- From approximately April to the end of September, a varying amount of water will be supplied to maintain irrigated pastureland within the approximately 30-acre regreening project. The amount of water supplied to the regreening project will be 3 acre-feet per acre.

Mitigation

Management and monitoring groundwater pumping as described in Item 1 above.

Agency Responsible for Implementing and Monitoring the Mitigation Measure

LADWP and the County of Inyo.

Summary of Possible Mitigation Measures

- Cessation of groundwater pumping from wells that affect the impacted area.
- Surface water application to repair, rehabilitate, and/or restore the impacts.
- Revegetation of the affected environment to restore vegetation cover to the ecological viability which existed prior to the impact.
- Fugitive dust emissions from construction activities shall be controlled by, but is not limited to, the use of chemical stabilizers, surface coverings, water trucks, and water sprays. The frequency of site watering and other dust control measures will depend on weather conditions, but must be sufficient to minimize visible dust plumes. Construction activities shall be monitored on a daily basis, including spoil piles, access roads, and haul roads, to verify that dust emissions are kept to a minimum.
- A construction equipment traffic route will be established from Highway 395, to Market Street, to Clay Street and the project site. Only construction equipment necessary to construct and operate the project will be utilized at the project site.
- Construction equipment shall be inspected daily to ensure that all equipment is free of leaking fuel, hydraulic fluid and cooling liquids.
- If any hazardous material is stored at the project site, it must be stored with appropriate secondary containment.
- Construction activities shall be monitored to ensure that all debris and hazardous materials are prevented from contaminating the soil and/or entering water of the state,
- Construction shall be monitored to ensure that all activities are performed within approved local ordinance time periods to minimize noise levels. Noise levels shall be monitored during construction and operation. If noise level standards are exceeded.
noise barriers shall be constructed to lower the noise levels. Permanent noise barriers could include barrier fencing or a building enclosure over the well.

FINDINGS

This Initial Study/Environmental Checklist and Effects and evaluation of Potential Significant Impacts and Mitigation Measures has been prepared by LADWP. The Initial Study, including the above environmental checklist and effects, indicates that the proposed project, as mitigated, will not have a significant adverse impact on the environment for the following reasons:

Based upon the Initial Study/Environmental Checklist and Effects of the proposed project, and the mitigation measures incorporated herein, it has been found the project does not have the potential to create a significant impact on flora or fauna; natural, scenic and historic resources; the local economy; or public health, safety and welfare. This constitutes a negative finding for each of the Mandatory Findings required pursuant to Section 15065 of the California Environmental Quality Act (CEQA) Guidelines.

CONCLUSION

This document constitutes a Negative Finding for the Mandatory Findings required pursuant to Section 15065 of the California Environmental Quality Act (CEQA) Guidelines.

The review period for this Draft Mitigated Negative Declaration expires on October 29, 2004. LADWP is not required to respond to any comments received after this date.

Additional information is available from the Los Angeles Department of Water and Power, please contact Charlotte Rodrigues at (760) 873-0223, if you have any questions regarding this project.