

## ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD

### 36 CFR Parts 1190 and 1191

#### Accessibility Guidelines for Play Facilities; Meeting of Regulatory Negotiation Committee

**AGENCY:** Architectural and  
Transportation Barriers Compliance  
Board.

**ACTION:** Notice of committee meeting.

**SUMMARY:** The Architectural and Transportation Barriers Compliance Board (Access Board) has established a regulatory negotiation committee to develop a proposed rule on accessibility guidelines for newly constructed and altered play facilities covered by the Americans with Disabilities Act and the Architectural Barriers Act. This document announces the times and location of the next meeting of the committee, which is open to the public.

**DATES:** The next committee meeting will be on January 6–9, 1997, beginning at 8:30 a.m. each day. The meeting will end at 5:00 p.m. each day, except on January 9, 1997 when it will end at 12 noon.

**ADDRESSES:** The committee will meet at 800 Hearst Avenue, Berkeley, California.

**FOR FURTHER INFORMATION CONTACT:** Peggy Greenwell, Office of Technical and Information Services, Architectural and Transportation Barriers Compliance Board, 1331 F Street, NW., suite 1000, Washington, DC. 20004–1111. Telephone number (202) 272–5434 extension 34 (Voice); (202) 272–5449 (TTY). This document is available in alternate formats (cassette tape, braille, large print, or computer disc) upon request.

**SUPPLEMENTARY INFORMATION:** In February 1996, the Access Board established a regulatory negotiation committee to develop a proposed rule on accessibility guidelines for newly constructed and altered play facilities covered by the Americans with Disabilities Act and the Architectural Barriers Act. (61 FR 5723, February 14, 1996). The committee will hold its next meeting on the dates and at the location announced above. The meeting is open to the public. The meeting site is accessible to individuals with disabilities. Individuals with hearing impairments who require sign language interpreters should contact Peggy Greenwell by December 20, 1996, by

calling (202) 272–5434 extension 34 (voice) or (202) 272–5449 (TTY).  
Lawrence W. Roffee,  
*Executive Director.*  
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## DEPARTMENT OF THE INTERIOR

### Bureau of Reclamation

#### 43 CFR Part 418

RIN 1006-AA37

#### Adjustments to 1988 Operating Criteria and Procedures (OCAP) for the Newlands Irrigation Project in Nevada

**AGENCY:** Bureau of Reclamation,  
Interior.

**ACTION:** Proposed rule.

**SUMMARY:** This proposed rule adjusts the 1988 OCAP for the Newlands Irrigation Project (Project). The 1988 OCAP anticipated that irrigated acreage in the Project would increase to 64,850 acres. In 1995, irrigated Project acreage was approximately 59,023 acres. Adjustments are proposed to the Project efficiency requirements, maximum allowable diversion calculations, and Lahontan Reservoir storage targets in the 1988 OCAP to reflect current irrigated acreage and court decrees which have lowered the water duty applicable to certain Project lands. To better manage diversions from the Truckee River to the Project, additional proposed adjustments to the 1988 OCAP provide flexibility in using snowpack and runoff forecasts and extending the time frame for storing water in Truckee River reservoirs in lieu of diversions to the Project from the Truckee River.

**DATES:** Written comments should be submitted to be received by February 7, 1997. All comments received by the close of the comment period will be considered and addressed in the Final Rule. Comments received after that date will be reviewed and considered as time allows.

**ADDRESSES:** Comments should be sent to: Adjusted OCAP, Truckee-Carson Coordination Office, 1000 E. William Street, Suite 100, Carson City, Nevada 89701–3116.

**FOR FURTHER INFORMATION CONTACT:** Additional copies of 1988 OCAP with proposed adjustments may be obtained from: Lahontan Area Office, Bureau of Reclamation, P.O. Box 640, Carson City, Nevada 89702, Phone (702) 882–3436.

If you have questions or need additional information contact:

Ann Ball, Manager, Lahontan Area  
Office, (702) 882–3436

or

Jeffrey Zippin, Team Leader, Truckee-Carson Coordination Office, (702) 887–0640.

#### SUPPLEMENTARY INFORMATION:

##### Background

On April 15, 1988, the Secretary of the Interior (Secretary) implemented new Operating Criteria and Procedures (OCAP) governing management of water diverted to and used within the Newlands Project. These 1988 OCAP were approved by the U.S. District Court for the District of Nevada, subject to a hearing on objections raised by various parties. In 1990, Congress directed in the Truckee-Carson-Pyramid Lake Water Rights Settlement Act (Title II of Pub. L. 101–618, Section 209(j) (104 Stat. 3294) that the 1988 OCAP remain in effect until December 31, 1997, unless changed by the Secretary in his sole discretion. Prior to this proposed rule, the 1988 OCAP have not been published in the Federal Register.

These OCAP were designed to further increase the reliance of the Project on water from the Carson River, minimize the use of water from the Truckee River as a supplemental supply, increase efficiency of water use in the Project, and establish a regulatory scheme to manage deliveries to Project water users including incentives for efficiency and penalties for inefficiency.

An environmental impact statement (EIS) was prepared on the 1988 OCAP. That EIS serves as the basis for reviewing the environmental effects of proposed adjustments.

The Department of the Interior (Department) has prepared a draft environmental assessment on the adjustments which tiers off of the analysis in that EIS. Copies of the draft environmental assessment may be obtained from the Truckee-Carson Coordination Office.

The Department is proposing at this time to make a number of revisions to the 1988 OCAP to adjust for changes in use of water rights, to increase flexibility, and to clarify and fine-tune the language of the OCAP based on experience gained in administering the 1988 OCAP through eight irrigation seasons. These revisions are proposed within the basic framework of the 1988 OCAP and its environmental documentation. They are also proposed for codification.

The need for additional changes to the 1988 OCAP beyond those proposed in this rule may be appropriate as well, but consideration of such changes is

expected to require further examination including the preparation of an environmental impact statement (EIS).

#### Description of the 1988 OCAP

The 1988 OCAP provisions were preceded by a preamble and introduction which are equally applicable to the Adjusted OCAP proposed. The 1988 OCAP preamble and introduction are here reproduced with minor grammatical editing. The following two headings, *1988 OCAP Preamble* and *1988 OCAP Introduction* are taken from the 1988 OCAP.

#### 1988 OCAP Preamble

The development of Operating Criteria and Procedures (OCAP) for the Newlands Project (Project) in western Nevada was initiated in the late 1960's and has proven to be a divisive, contentious issue for the people in Nevada who rely on the waters of the Carson and Truckee Rivers. Competition for the water in the Project's desert environment is intense and growing. The conflicts among uses are clearly apparent in the effects forecast on various areas where the Department of the Interior (Department) has program responsibilities. The issue is complicated further by the requirements of the Endangered Species Act and the listing of the Cui-ui, a fish inhabiting the lower Truckee River and Pyramid Lake.

In order to proceed effectively and fairly, the Department had to have guiding principles for the OCAP. These are to:

- Provide water deliveries sufficient to meet the water right entitlements of Project water users;
- Meet the requirements of the Endangered Species Act as they specifically relate to the Truckee River/Pyramid Lake Cui-ui;
- Fulfill Federal trust responsibilities to the Pyramid Lake Paiute Indian Tribe;
- Conserve wetland and wildlife values in both the Truckee and Carson River basins;
- Give cognizance to the State laws affecting water rights and uses;
- Provide for stable economies and improve quality of life in the region to the extent it is influenced by the Department-managed resources and facilities;
- Allow local control and initiative to the maximum extent possible; and
- Provide stability and predictability through straightforward operation based on actual versus forecast conditions.

The Department believes that the proposed OCAP best satisfy these

principles within the limits of the Department's legal authority.

Each of the competing uses for the water is critical in its own right. They are all essentially separable for decision making purposes even though they clearly impact upon each other since the available supply is far less than the demand.

The OCAP deal with the operation and use of Federal facilities related to the Newlands Project. Therefore, their primary responsibility is supplying the water rights to the Project water users. To the extent this can be done effectively and efficiently, then the remaining water supply is available for other competing uses. The secondary impacts of the OCAP must, however, act to support or encourage results which benefit the other competing uses.

The basic structure of the OCAP relies on both rules and incentives which we believe will ensure reasonable, efficient water management through reliance on local control and initiatives. The direct consequences of the OCAP will be delivery of full water entitlements within the Newlands Project, protection of endangered species, fulfillment of trust responsibilities, and encouragement for the protection of other environmental and quality of life values.

#### 1988 OCAP Introduction

The OCAP shall govern the operation and use of federal facilities on the Project.

When approved by the United States District Court for the District of Nevada (Court), the OCAP will supersede all OCAP previously issued by the Secretary of the Interior (Secretary) and the 1973 OCAP previously issued by the Court in *Pyramid Lake Paiute Tribe of Indians v. Morton*, 354 F. Supp. 252 (D.D.C. 1973). The OCAP are believed to be consistent with the decrees in *United States v. Alpine Land and Reservoir Co.*, 503 F. Supp. 877 (D. Nev. 1980), substantially affirmed, 697 F.2d 851 (9th Cir. 1983), cert. denied, 464 U.S. 863 (1983) and *United States v. Orr Water Ditch Co.*, Equity No. A-3 (D. Nev.) (Orr Ditch and Alpine decrees, respectively). Implementation of the OCAP will ensure that the Secretary: (i) supplies the Project with water to meet all valid water rights; (ii) fulfills the federal trust responsibility to the Pyramid Lake Paiute Tribe of Indians; (iii) fulfills the federal trust responsibility to the Fallon Paiute-Shoshone Tribes of Indians; (iv) meets the requirements of the Endangered Species Act (16 U.S.C. 1531 et seq.); and (v) provides a framework for local decision making which can contribute

to the protection of wetlands, recreation, economic, and other regional values. Procedures are included to monitor water use and Project operations and to enforce these OCAP.

Fundamentally the OCAP are predicated on water being used on the water-righted land in a manner similar to the past coupled with the Project operating at a reasonable efficiency. The Department believes that the OCAP efficiency targets are reasonable because they are at a level that can be shown to be achievable, can be obtained without significant capital expenditures and are within the range of efficiencies achieved in comparable systems.

The OCAP are designed to operate in a manner to produce a long term average effect recognizing that each year will necessarily be different as weather and actions by individual water users vary. It is also critical that OCAP compliance be measured based on facts which can be readily determined and reviewed, rather than on forecasts, theories, or models. In combination, the use of a factual base and a long-term average project efficiency yield a methodology which will operate in a predictable fashion that minimizes disputes and allows the landowners and others to make knowing, rational decisions for themselves.

The OCAP assure proper water use and a reasonable efficiency by establishing a methodology consisting of three basic elements. First, it requires monitoring headgate deliveries against the acreage eligible to receive Project water multiplied by the court set water duty.

Second, the OCAP establish efficiency targets for the Project distribution system. The efficiency target varies with the actual valid headgate deliveries. Since many of the system losses are relatively constant, the system efficiency declines with smaller headgate deliveries and increases with larger deliveries. This also allows an automatic adjustment in efficiency for drought conditions. The OCAP provide for incentives if the District's operation is more efficient and for disincentives if it is less efficient than the OCAP target efficiency. Thus, through use of the incentive provisions, the District can offset deficiencies in time of drought or use the water saved for its desired purposes (e.g., wetlands, recreation, power, etc.) consistent with Nevada and Federal Law.

Third, as a protection against the first two elements allowing the operation to become excessively out of balance, the OCAP establish a maximum allowable diversion (MAD) limit for irrigation and a maximum efficiency deficit (MED). No

limit has been placed on the ability of the District to gain through the incentive feature.

The MAD and MED limits are set to provide an operating cushion approximately 26,000 acre-feet above and below, respectively, the expected irrigation diversions, assuming the District's operation is at an average annual efficiency at the OCAP target level. Neither limit is expected to ever be encountered in actual operation.

The operating cushion size was chosen in relation to historic operations. Historically, not all water users have used their full entitlements in a given year. Either the season doesn't require it, the crops planted need less, or the land cannot productively accommodate the full amount. Whatever the reason, the Project uses about 26,000 acre-feet less every year on average than its entitlement for actual irrigated acres. This provides a reasonable cushion, or insurance protection, above the normal expected use, yet does not in any way limit or impact on the water users' rights. It is also an important protection for other uses. Therefore, rather than

trying to forecast the expected actual use each year and adding the operating cushion to get the MAD, it is more direct and predictable to simply determine the anticipated acreage to be irrigated at its full water duty for the MAD.

The MED is a fixed number set equal to the operating cushion. It is the limit on how much accumulated storage can be borrowed from the future to satisfy a less efficient operation. The MED is for the protection of the water users against too severe an impact in the case of a low water year. Only the MAD can affect current operations within an irrigation season. The MED operates on the subsequent year only.

These OCAP will be enforced in cooperation with the Federal Water Master and the Nevada State Engineer and will govern delivery of all Project water. The OCAP are applicable to the Truckee-Carson Irrigation District or any other Project operating entity.

1996 Revisions to the OCAP in General

1. Changes in Water Demand: The 1988 OCAP envisioned and provided for

increasing irrigated acreage. It was assumed the project would grow from about 60,900 irrigated acres and a headgate entitlement of 226,450 acre feet of water on average beginning in 1988 to as much as 64,850 irrigated acres and a headgate entitlement of 237,485 acre feet on average by 1992 and thereafter with certain efficiency targets and assumptions about water duties and use of entitlements. The annual calculations of the maximum allowable diversion (MAD) to the Project and efficiency requirements in use today are based, in part, on this assumed projected growth to 64,850 irrigated acres and the other 1992 project water demand assumptions. In practice, this growth has not occurred. Actual acreage served in 1995 and assumed for 1996 and thereafter for at least several years, and other key parameters in determining project water use are displayed in Table A below along with the comparable assumptions made in the 1988 OCAP.

TABLE A.—COMPARISON OF PROJECT WATER BALANCE ASSUMPTIONS

	1988 OCAP assumptions		Current assumptions	
	1988	1992	1995	Proposed
Acres .....	61,630	64,850	59,023	59,023
Average duty in acre-feet per acre (af/a) <sup>1</sup> .....	3.67	3.66	3.49	3.49
Headgate entitlements in acre-feet .....	226,555	237,485	206,230	206,230
Estimated percent use of entitlement .....	90	90	90	93.2
Resulting demand .....	203,900	213,740	185,555	192,206
Percent target efficiency <sup>2</sup> .....	59.3	66.7	66.7	65.7
Expected diversion in acre-feet .....	343,845	320,450	278,193	292,627
Maximum allowable diversion in acre-feet .....	371,055	346,985	301,506	308,319

<sup>1</sup> Average duty includes bench lands at 4.5 af/a, bottom lands at 3.5 af/a, pasture lands at 1.5 af/a, and deliveries to wetlands of less than full entitlement.

<sup>2</sup> The target efficiencies for 1988, 1992, and 1995 are as prescribed in the 1988 OCAP; the Proposed target efficiency is calculated.

The differences between 1992 and 1995 stem from the following:

- **Acreage:** The anticipated increase in acreage has not materialized; actual irrigated acreage in 1995 was 59,023 acres. This amount reflects the efforts of the Bureau of Reclamation (BOR) to limit irrigation to water-righted lands and that, on average, irrigators have not increased the acreage of lands in production.

- **Average Water Duty:** The average water duty for the project has been reduced as a result of the so-called "bench/bottom litigation" (1995 Order of Judge McKibben, in *U.S. v. Alpine*, United States District Court for the District of Nevada No. D-185). This bench/bottom court ruling approved a change in the designation of some Project lands from bench lands to

bottom lands. Bench lands have a maximum water duty of 4.5 acre-feet/acre; bottom lands have a maximum water duty of 3.5 acre-feet/acre. (The Project includes pasture lands with a duty of 1.5 acre-feet/acre.) The bench/bottom decision reclassified approximately 9,000 acres of irrigated lands in the project, reducing Project water entitlements by approximately 9,000 acre-feet. The change in demand is expected to be approximately 5,000 acre-feet of water when measured at the farm headgates. This is based on historic use of about 90 percent of the headgate entitlement at 4.5 acre-feet/acre versus projected use of 100 percent of the 3.5 acre-feet/acre entitlement.

- **Average Use of Entitlement:** Actual water use as a percentage of entitlement is usually less than 100 percent,

historically about 90 percent. The reduced percentage of entitlement use results from on-farm practices and efficiencies, fallowing of lands, and varying weather conditions. The current projected percent use of entitlement is 93.4 percent. This is based on irrigation use of 91.8 percent and 95 percent for Carson and Truckee Divisions, respectively, and 100 percent water use for pasture lands and wetlands. Several factors will affect use of entitlement in the future:

—As noted above, irrigators whose lands were reclassified from bench lands with a water duty of 4.5 acre-feet per acre to bottom lands with a 3.5 acre-feet per acre duty may use more than 90 percent of their entitlement, an increase in use.

- The Fallon Paiute-Shoshone Tribes reservation is within the Project and Tribes have a cap on the water they receive. The Tribes are expected to use their full water entitlement every irrigation season.
- The Naval Air Station Fallon, as part of an agreement with the U.S. Fish and Wildlife Service (FWS), will use less of its irrigation water and is also developing less water intensive cropping strategies decreasing percent use of entitlement.
- The FWS and the State of Nevada are acquiring water rights within the Newlands Project for restoration of wetlands at Stillwater National Wildlife Refuge. The FWS and Nevada are transferring the consumptive use portion, 2.99 acre-feet per acre, of the water rights they acquire. This changes their entitlement to 2.99 acre-feet per acre of which they are expected to take 100%, thus increasing percent use of entitlement.

These and other changes in water use will cause the percent use of entitlement to vary from year to year. The percent use will be determined based on actual experience and used in calculating the expected irrigation diversion for each irrigation season.

- *Efficiency:* Within the same size project, more irrigated acreage results in greater efficiency; with less irrigated acreage lower efficiencies are expected. Project irrigated acreage never reached the level anticipated in the 1988 OCAP but the associated target efficiencies have remained in effect. As water rights are acquired for Stillwater Wildlife Refuge (Pub. L. 101-618, section 206), the effect on Project efficiencies may vary at first, but as more water is acquired and moves to the Refuge, efficiencies should improve stemming from the concentration of deliveries through the system.

#### Specific Proposed Adjustments to 1988 OCAP

Even with the prospect of revising the OCAP in the future, there are a number of adjustments to the 1988 OCAP that will help manage the Project during the interim period until a revised OCAP can be promulgated. This proposed rulemaking addresses only those adjustments to the 1988 OCAP in the following areas:

1. Target Efficiency adjustments (§ 418.1(c)(3)(i)(A) and Newlands Project Water Budget table): The 1988 OCAP envisioned and allowed for increasing irrigated acreage, assuming the Project would grow to over 64,850 irrigated acres by 1992 compared to a base of approximately 60,900 acres

being irrigated in 1987. The annual calculations of the maximum allowable diversion (MAD) to the Project and efficiency requirements currently in use are based on a Project of 64,850 or more irrigated acres and a commensurate target efficiency of 68.4 percent. However, the acreage increase has not materialized and current irrigated acreage is approximately 59,023 acres. The Project efficiency that can be achieved, which is the relationship between the total annual diversion to the Project and total delivery to farm headgates, is directly related to irrigated acreage; efficiency generally decreases as the irrigated acreage in the Project decreases. The 1988 OCAP does not accurately reflect the current acreage, and as a consequence, the higher efficiency requirement remains in effect. This may decrease the water available to the Project as calculated in the MAD and increases the likelihood of penalties for inefficiency.

In response to less acreage and varying water demand, the Department proposes to calculate the annual Project water budget for each irrigation season in accordance with the elements in the Newlands Project Water Budget table of the Adjusted OCAP. Each year the Maximum Allowable Diversion (MAD) would be based on the projected irrigated acreage for that year and applicable water duties. The other elements in Newlands Project Water Budget, including appropriate Project efficiency, would be calculated to determine the MAD and Project efficiencies. Through this proposal, the Project water budget can accommodate anticipated changes in Project characteristics.

Using the 1995 Actual Acres column from the Newlands Project Water Budget, Maximum Headgate Entitlement (line 2) is the product of Irrigated Acres (line 1) and the average water duty (calculated annually). Variable distribution system losses of Canals/Laterals Evaporation (line 3), Canals/Laterals Seepage (line 5), and Operational Losses (line 7) are interpolated to determine the Total Losses (line 8) for a given Project size. The combined Maximum Headgate Entitlement (line 2) and the Total Losses (line 8) determines the MAD (line 9), and the relationship of Maximum Headgate Entitlement (line 2) to Total Losses (line 8) determines Project Efficiencies at 100 percent water use (line 10). Actual use of entitlement, based on historic patterns, is less than 100 percent, so the Maximum Headgate Entitlement is adjusted by the projected percent use of entitlement (calculated annually) to yield Expected Headgate

Entitlement Unused (line 11) and the Diversion Reduction for Unused Water (line 12). The Diversion Reduction for Unused Water (line 12) is subtracted from the MAD (line 9) to determine Expected Irrigation Diversions (line 13). Finally, the adjusted Project demand (calculated from line 2 minus line 11) is divided by the Expected Irrigation Diversions (line 13) to determine the Expected Efficiency (line 14).

The effect of this proposal is to have OCAP that more accurately reflect the Project water demand. Reducing the annual Project efficiency target will recognize the limitation of the present water distribution system facilities and assist the Project in achieving efficiency requirements. No changes are proposed for the 1988 OCAP relative to how the MAD is calculated and administered, determination of eligible land, reporting, or calculation of credits or debits.

2. Adjustments in Storage Targets (§ 418.3(e) and tables of Monthly Values for Lahontan Storage Computations and End of Month Storage Targets for July Through December): The 1988 OCAP prescribes when water may be diverted from the Truckee River to supplement Carson River inflow to Lahontan Reservoir to serve the Carson Division of the Project. (The Truckee Division of the Project is supplied entirely by water from the Truckee River.) The Truckee River diversion to the Carson Division is governed by end-of-month storage target levels in Lahontan Reservoir. Water is diverted from the Truckee to the Reservoir only if it is forecast that the storage target will not be met by Carson River inflow by the end of the month. In years of low flow on the Carson River, a greater percentage of the Carson Division Project water supply is diverted from the Truckee River. In wet years, the Carson Division supply may come entirely from the Carson River. Thus, storage targets are used to help maintain a steady water supply despite the natural climatic variability and differences in annual runoff between the two river basins.

The formula used to determine how much water may be diverted to Lahontan Reservoir from the Truckee River in January through June relies, in part, on the runoff forecast for the Carson River. The imprecision inherent in such forecasting can lead to variable consequences. Sometimes more Truckee River is diverted than is needed to serve Project water users. This is particularly problematic when the Carson River fills Lahontan Reservoir to the point that water spills over Lahontan Dam or so that a precautionary spill (release) of water must be made to avoid later

flooding. In either situation, spilled water that cannot be transported to water-righted lands or Lahontan Valley wetlands flows into Carson Sink in the desert. This situation occurred most recently in 1996 with the consequence that Truckee River water that could have flowed into Pyramid Lake contributed to water that was spilled.

Because of their imprecision, forecasts for Carson River runoff do not always reflect actual conditions and the water may not materialize. If not enough water was brought over from the Truckee River earlier in the water year, or Truckee River flow is insufficient to make up for the shortfall from the Carson River, then the water supply may be inadequate to meet the annual irrigation demand. This situation occurred in 1994 when the Carson River was forecast to have a 100 percent water year but only produced a 50 percent water supply.

Two of the objectives of OCAP are to minimize spills and moderate shortages. It is important to note that for the 94 years of records, the climatic/hydrologic variability of both rivers is so great that even if there were no limits on the diversion of Truckee River water, in some years shortages would result. Conversely, even if no Truckee River water were diverted, in some years Lahontan Reservoir would spill just from Carson River inflow.

The 1988 OCAP has a June end-of-month storage target of 215,000 acre feet in Lahontan Reservoir. The 215,000 acre-feet was based on serving at least 5,000 more acres of water-righted and irrigated land than has been irrigated in actual practice. The reclassification of some bench lands to bottom lands further reduces water demand in the Carson Division. The difference in headgate demand between what the 1988 OCAP projected and current Carson Division demand is approximately 21,000 acre-feet. The current storage targets permit

unnecessary diversions from the Truckee River to the Project. The proposed Adjusted OCAP storage targets are based on the lower Carson Division demand and reducing water loss to seepage and evaporation. Accordingly, the proposed end-of-June storage target is adjusted to 174,000 acre-feet, as shown in the table Monthly Values for Lahontan Storage Calculations. The June storage target is important because it is one of the terms in the formula used to calculate the monthly Truckee River diversion to the Project for January through June.

A comparison of the 1988 OCAP and proposed Adjusted OCAP storage targets for Lahontan Reservoir are shown in Table B of this preamble.

TABLE B.—COMPARISON OF 1988 OCAP AND PROPOSED ADJUSTED OCAP LAHONTAN RESERVOIR STORAGE TARGETS

[In acre-feet]

Month	1988 OCAP	Adjusted OCAP
January–June ....	215,000	174,000
July .....	160,000	139,000
August .....	140,000	95,000
September .....	120,000	64,000
October .....	80,000	52,000
November .....	160,000	74,000
December .....	210,000	101,000

The adjusted storage targets for these months appear in the table End of Month Storage Targets for July Through December in the proposed rule. The adjusted storage targets would be used to calculate diversions from the Truckee River in accordance with § 418.3 of the proposed rule.

The proposed storage targets were developed using the Truckee River settlement negotiations water balance model. The model was used to examine how different storage targets affected spills, inflow to Pyramid Lake, and other parameters. Key assumptions used

in modeling were reduced Project water demand from the 1988 OCAP, lower efficiency targets, current Truckee River operations, and Project shortages consistent with the 1988 OCAP. The model uses the 94-year (1901–1995) historic hydrologic record for the Truckee and Carson Rivers.

A series of modeled storage targets was evaluated based on the degree to which a set of targets reduced spills, increased inflow to Pyramid Lake, increased the estimated number of spawning years for cui-ui, increased the estimated number of cui-ui, reduced Lahontan Reservoir and Truckee Canal seepage and evaporation losses, and held frequency and magnitude of Project shortages consistent with the 1988 OCAP. These goals are consistent with the Secretary of the Interior's responsibilities as the District Court ruled in *Tribe v. Morton*.

Though not a specific feature of the Adjusted 1988 OCAP, the modeling used in making decisions on this proposed rule took cognizance of the 4,000 acre foot minimum pool that the Truckee-Carson Irrigation District voluntarily has maintained in Lahontan Reservoir to protect fish resources there. Though this action to maintain a minimum pool is purely voluntary on the part of TCID and Newlands Project water right holders, it provides environmental benefits, was assumed to be continued into the future, and was credited in the modeling used to establish new Lahontan storage targets; that is to say, the targets would have been somewhat lower to achieve the same release shortage percentage and Truckee River inflow volume to Lahontan Reservoir assuming no anticipation of the 4,000 acre-foot minimum pool.

Table C compares the modeled current conditions under the 1988 OCAP to those under the Adjusted 1988 OCAP for each of these elements.

TABLE C.—MODELED RESULTS FOR OCAP STORAGE REGIMES

Parameter	1988 OCAP <sup>1</sup>	Proposed adjusted OCAP	Difference
Truckee Canal and Lahontan Reservoir Losses .....	61,800 af <sup>2</sup> ...	53,600 af .....	8,200 af.
Reservoir Spills .....	42,100 af .....	37,500 af .....	4,600 af.
Lahontan Release Shortage .....	7,820 af .....	6,880 af .....	940 af.
Release Shortage as Percentage of Demand .....	2.68% .....	2.54% .....	0.14%.
Minimum Pool .....	0 .....	4,000 af .....	4,000 af.
Number of Shortage Years .....	9 years .....	9 years .....	
Truckee River Inflow to Pyramid Lake .....	445,500 af ....	480,700 af ....	35,200 <sup>3</sup> af.
Cui-ui Spawning Years .....	69 years .....	74 years .....	5 years.
Ending Number of Adult Female Cui-ui .....	40,300 .....	304,300 .....	264,000.

<sup>1</sup> Modeled results based on the 1992 Newlands demand assumptions from the 1988 OCAP, the 94-year hydrologic record (1901–1995), and 1995 Truckee River operating conditions.

<sup>2</sup> af=acre-feet.

<sup>3</sup> The difference in inflow to Pyramid Lake results from reduced Project acreage and reduced Truckee Canal and Reservoir losses.

The values are averages for the 94-year period of record. In every category listed above, the modeled results show improvement under the proposed storage targets as compared with the 1988 OCAP modeled with 64,800 irrigated Project acres and current Truckee River conditions. A reduction of water loss and spill from the Project will increase inflow to Pyramid Lake. Shortages to the Project are reduced under the proposed storage targets by approximately 2,500 acre-feet compared to the current target regime using the 1988 OCAP and 1995 acreage and water use. However, today's irrigated acreage has not matched what was anticipated in the 1988 OCAP so Project water supply has benefited from storage targets based on higher water demand assumptions in place.

3. Truckee River Storage in Lieu of Diversions (§ 418.3(e)(8)): Project diversions from the Truckee River may be fine-tuned by retaining water in upper Truckee River reservoirs that would otherwise have been diverted to Lahontan Reservoir to meet storage targets. Depending upon how much Carson River runoff reaches Lahontan Reservoir and whether storage targets are met by the Carson River inflow, the water retained in storage may be released later in that year and diverted to Lahontan Reservoir for delivery to the Carson Division, or retained for Pyramid Lake if the water is not needed for Carson Division irrigation.

Under the 1988 OCAP, water may be stored upstream on the Truckee River in lieu of diversion only from April to June. In 1995, this limitation contributed to approximately 70,000 acre-feet of water being diverted from the Truckee River to Lahontan Reservoir before March 31, then spilling because of high Carson River runoff. None of the Truckee River water was needed because the Carson River more than filled Lahontan Reservoir and precautionary releases were made to avoid spilling over the dam. While the 70,000 acre-foot-diversion from the Truckee was controversial, it resulted from managing the diversion in strict adherence with the 1988 OCAP targets. The proposed Adjusted OCAP provides more flexibility to reduce such unnecessary diversions.

Consistent with managing Projects diversions from the Truckee River, the proposed rule expands the opportunity to credit store water for the Project in reservoirs on the upper Truckee River by allowing storage as early as January of each year. The water would be credited based on water actually retained in Truckee River reservoirs or, if water was not being released for Project

diversion, credited as Newlands Project water in Stampede Reservoir adverse to other water (fish water) stored in Stampede Reservoir. In the latter situation, concurrence by the U.S. Fish and Wildlife Service (FWS) will be required. For example, a reduction of diversions in January through March of 1995, would have required FWS approval because water was not being released for Project diversion. Stored water could be released for diversion to Lahontan Reservoir, if needed, as early as July 1 through the end of the irrigation season, but not thereafter. The Water would only be used for the Carson Diversion. Water in storage could be exchanged to other reservoirs but it will not carry over to the next year for use in the Project. If it is not used in the year in which it is stored, it will not be available thereafter to the project. To protect the water users, the water held in storage on the Truckee River would not be reduced as a result of spill or evaporation and would be gaged at the U.S. Geological Survey gage on the Truckee Canal near Wadsworth, Nevada, to ensure that the diversion to the Project matches the diversion foregone earlier in the season. Water stored but not needed for the Project would be managed to benefit endangered cui-ui in Pyramid Lake.

The proposed adjustment provides the flexibility to reduce excessive diversions from the Truckee River. As proposed, there is no risk to the Project water users and there is potential benefit for Pyramid Lake. The BOR is expected to use this proposed provision only in years when Carson River runoff is forecast to be above average and is intended to fine tune diversions and avoid over-diversions from the Truckee River. Such storage in Stampede Reservoir or other Truckee River Reservoirs is not intended to make up for shortages in drier years. There is little advantage to foregoing diversions in below average runoff years if the likelihood is that all the credit stored water would need to be diverted to the Project in any event. The changes proposed in § 418.3(e)(8) of the rule include provisions for BOR to consult with TCID, the Federal Water Master, FWS, Bureau of Indian Affairs (BIA), and the Pyramid Lake Paiute Tribe before any credit storing is initiated.

4. Expanded Forecasting (§ 418.3(e)(1)): In calculating the January to June monthly diversions from the Truckee River, the 1988 OCAP uses the monthly forecast for April through July runoff published by the Natural Resources Conservation Service (NRCS) (formerly the Soil Conservation Service). Rather than continuing to rely

on that forecast alone, § 418.3(e)(1) of the proposed Adjusted OCAP provides flexibility to examine other forecasts and allows use of a deliberative process to determine how to manage Truckee River diversions. The intent of this change is to allow the BOR to take advantage of other forecasts and the experience and knowledge of the Federal Water Master, the TCID water master, and other parties. The desired effect of this change is to improve precision in forecasting and managing the Truckee River diversion to the Project to avoid spills and shortages.

5. Additional Revisions: In addition to the proposed change identified in 1. through 4. above, a number of minor revisions have been made to the 1988 OCAP. Most changes are editorial and do not affect the meaning of the text. Some changes provide opportunities for consultation with interested and effected parties before BOR makes a decision.

A few changes add language to clarify or interpret the meaning of the 1988 OCAP in light of experience administering the OCAP, passage of time, or new statutory provisions. Changes to the text of the 1988 OCAP occur at:

Section 418.1: Other Project purposes are added in accordance with Pub. L. 101-618, 104 Stat. 3289, Sec. 209 (a)(1).

Section 418.1 (c)(3) (i) (B): Explains the use of efficiencies in calculating the MAD.

Section 418.3 (c): Calculates terminal flow in the Truckee Canal by averaging flows during the time when water is not being diverted to Lahontan Reservoir.

Section 418.3 (g): Subtracts Rock Dam Ditch deliveries from Carson Division demand and adds it to Truckee Division demand.

Section 418.3 (h) (1): Water captured in Project facilities from a spill or precautionary draw down is used to make deliveries to eligible lands but does not count as a Project diversion or as Lahontan Reservoir storage.

Section 418.7(b): Deletes the reference to the February 14, 1984, Contract for Operation and Maintenance between the United States and the District.

Section 418.9 (f) (4): Adds new text clarifying that a natural drought greater than or equal to the debit will eliminate the debit.

Section 418.9 (h)(2): Allows TCID to divert up to the MAD if needed to meet headgate entitlements.

#### Coordination With the Public

The Department developed the proposed adjustments to the 1988 OCAP in consultation with the BOR, FWS, BIA, and other interested and affected

parties in western Nevada. Four public meetings were held in Fernley, Nevada, to discuss the four main revisions to the 1988 OCAP described above.

Participants in the public meetings were representatives from the State of Nevada, Churchill County, Washoe County, Town of Fernley, TCID, Pyramid Lake Paiute Tribe, Fallon Paiute-Shoshone Tribes, Lahontan Valley Environmental Alliance, Newlands Water Protective Association, The Nature Conservancy, and members of the public.

#### Administrative Matters

- This rule is not a significant rule under Executive Order (E.O.) 12866 and does not require review by the Office of Management and Budget.

- As required by the Regulatory Flexibility Act, it is hereby certified that this rule will not have a significant impact on small business entities.

- This rule does not include any collections of information requiring approval under the Paperwork Reduction Act.

- The Department has preliminarily determined that the proposed rule is not a major Federal action having significant effects on the human and natural environment. A draft environmental assessment (EA) has been prepared on the effects of the proposed rule. The EA will be reviewed in light of comments on the proposed rule.

- The proposed rule has no substantial effects on Federalism under the requirements of E.O. 12612.

- The proposed rule does not have a significant impact on family formulation, maintenance, and general well being under the requirements of E.O. 12606.

- The proposed rule does not represent a government action that would interfere with constitutionally protected property rights and does not require a Takings Implications Assessment under E.O. 12630.

- The proposed rule meets the applicable standards of civil justice reform in accordance with E.O. 12988.

- The proposed rule will not result in aggregate annual expenditures in excess of \$100 million by state, local, and tribal governments, or the private sector and is, therefore, not subject to the requirements of Section 202 of the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4).

The author of this rule is Jeffrey Zippin of the Department of Interior, Truckee-Carson Coordination Office.

The proposed rule replaces the 1967 OCAP regulations at 43 CFR 418. That regulation was superseded by

subsequent U.S. District Court-approved OCAP, including the 1988 OCAP, which are the basis for this proposed rule.

List of Subjects in 43 CFR Part 418; Irrigation, Water supply, Newlands Irrigation Project; Operating Criteria and Procedures.

Dated: November 27, 1996

John Garamendi,

Deputy Secretary.

For the reasons set forth in the preamble, 43 CFR part 418 is proposed to be revised as follows:

#### **PART 418—OPERATING CRITERIA AND PROCEDURES FOR THE NEWLANDS RECLAMATION PROJECT, NEVADA**

Sec.

418.1 Conditions of water delivery.

418.2 Monitoring diversions.

418.3 Operations management.

418.4 Water rights.

418.5 Prohibited deliveries.

418.6 Violations.

418.7 Enforcement.

418.8 Water management and conservation.

418.9 Implementation.

418.10 Fallon Paiute-Shoshone Indian Reservation.

Appendix A—Expected Project Distribution System Efficiency

Authority: 32 Stat. 388, et. seq.; 43 U.S.C. 373; 70 Stat. 775; 72 Stat. 705; 104 Stat. 3289.

##### **§ 418.1 Conditions of water delivery.**

Project water may be delivered only to serve valid water rights used for maintenance of wetlands, fish and wildlife including endangered and threatened species, recreation, domestic and other uses and for irrigation of eligible land. Domestic and other uses of Project water are as defined by the *Orr Ditch* and *Alpine!* decrees. Eligible land is defined as Project land which at the time of delivery has a valid water right and either: Is Classified as irrigable pursuant to Bureau of Reclamation (Bureau) land classification standards (Reclamation Instruction Series 510); or has a paid out Project water right.

(a) *Irrigation deliveries.* Project irrigation water deliveries may be only to eligible land to be irrigated. The District shall maintain records for each individual water right holder indicating the number of eligible acres irrigated and the amount of water ordered and delivered.

(1) *Eligible land actually irrigated.* During each year, the District, in cooperation with the Bureau, shall identify and report to the Bureau the location and number of acres of eligible land irrigated in the Project. Possible irrigation of ineligible land will also be identified. The Bureau will review data to assure compliance with these OCAP.

The District in cooperation with the Bureau will be responsible for field checking potential violations and immediately stopping delivery of Project water to any ineligible land. The Bureau may also audit as appropriate.

(2) *Eligible land with transferred water rights.* The District water rights maps dated August 1981 through January 1983 will be used as the basis for determining lands which have a valid water right. The original maps will be maintained by the District. The District shall provide copies of the maps to the Bureau. The District will alter the maps and the copies to account for water right transfer as they are approved by the Nevada State Engineer.

(3) *Other eligible land.* The Bureau will also identify eligible land that was not irrigated during the prior irrigation season.

(4) *Notification and review.* (i) Eligible land anticipated to be irrigated. (A) Anticipated changes in irrigated eligible land from the prior year will be reported to the Bureau's Lahontan Basin Projects Office by the District by March 1 of each year. The District will adjust the acreage of the eligible land anticipated to be irrigated to correct for inaccuracies, water right transfer that have been finally approved by the Nevada State Engineer, and any other action than impacts the number of eligible acres, acres anticipated to be irrigated, or water deliveries. As the adjustments are made, the District will provide updated information to the Bureau for review and approval. The District shall adjust anticipated water allocations to individual water users accordingly.

The allocations will be based on a maximum annual entitlement of 3.5 acre-feet (AF) per acre of bottom land, 4.5 AF per acre of bench land, and 1.5 AF per acre of pasture land that is anticipated to be irrigated and not by the number of water-righted acres.

(B) The District will provide the individual water users with the approved data regarding the anticipated acreage to be irrigated and water allocations for each water user that year. Any adjustments based on changes in lands anticipated to be irrigated during the irrigation season must be reported by the individual water user to the District. The District will, in turn, notify the Bureau of any changes in irrigated acreage which must be accounted for. Each landowner's anticipated acreage must be less than or equal to the landowner's eligible acreage.

(C) Should a landowner believe that the number of acres of eligible land he or she is entitled to irrigate is different from the number of acres as approved by the Bureau, the landowner is



required to notify the District and present appropriate documentation regarding the subject acreage. The District shall record the information and present the claim to the Bureau for further consideration. If the Bureau determines that there is sufficient support for the landowner's claim, then adjustments will be made to accommodate the changes requested by the landowner. If the Bureau disallows the landowner's claim, the Bureau shall notify the District is writing. The District will, in turn, inform the landowner of the disposition of the claim and the reasons, therefore, and will further instruct the landowner that he or she may seek judicial review of the Bureau's determination pursuant to the *Orr Ditch* and *Alpine* decrees. If the dispute affects the current year, then the Bureau and the District will seek to expedite any court proceeding.

(ii) Changes in domestic and other uses. By March 1 of each year, the District shall reports to the Bureau all anticipated domestic and other uses. This notification shall include a detailed explanation of the criteria utilized in allowing the use and sufficient documentation on the type and amount of use by each water user to demonstrate to the satisfaction of the Bureau that each water user is in compliance with the criteria. With adequate documentation, the District may notify the Bureau of any changes in domestic water requirements at any time during the year.

(b) *Water duty.* (1) Eligible land may receive no more than the amount of water in acre-feet per year established as maximum farm headgate delivery allowances by the *Orr Ditch* and *Alpine* decrees. All water use is limited to that amount reasonably necessary for economical and beneficial use pursuant to the *Orr Ditch* and *Alpine* decrees.

(2) The annual water duty as assigned by the *Orr Ditch* and *Alpine* decrees is a maximum of 4.5 AF per acre for bench lands and a maximum of 3.5 AF per acre for bottom lands. The water duty for fields with a mixture of bench and bottom lands shall be the water duty of the majority acreage. Bench and bottom land designations as finally approved by the United States District Court for the District of Nevada will be used in determining the maximum water duty for any parcel of eligible land. The annual water duty for pasture land established by contract is 1.5 AF per acre.

(c) *Deliveries, efficiency, and maximum limits.* The OCAP will constrain the operation of the Project on a long term average basis to achieve the

full benefits for all the region's water users through three basis elements: valid headgate deliveries; Project efficiency with incentives and disincentives; and maximum operating limits or cushions.

(1) *Valid headgate deliveries.* The valid water deliveries at the headgate are set by the product of eligible land actually irrigated multiplied by the appropriate water duty in accordance with §§ 418.1(a) and 418.1(b). The District will regularly monitor all water deliveries and report in accordance with § 418.1(a). No amount of water will be permitted to be delivered in excess of the individual water user's headgate entitlement. In the event it should occur, such amount will be automatically reflected in the efficiency deficit adjustment to the Lahontan storage. Water delivered in excess of entitlements shall not be considered valid for purposes of computing project efficiency.

(2) *Project efficiency.* (i) The principal feature of the OCAP is to obtain a reasonable level of efficiency in supplying water to the headgate by the District. The efficiency targets established by these OCAP are the cornerstone of the enforcement and the incentive provisions and when implemented will aid other competing uses.

(ii) The efficiency approach has the advantage of being readily calculable at the year's end, easily convertible to water appropriate to that year, able to be compared to other systems even though there may be many dissimilarities, appropriate for long term averaging, adjustable to any headgate delivery level including droughts or allocations, automatically adjusts to changes during the year, and it accurately accounts for misappropriated water. It also can be achieved through any number of measures from operations to changes in the facilities and can be measured as an end product without regard to the approach. Thus it is flexible to allow local decision making and yet is fact based to minimize disputes.

(iii) Assuming that the headgate deliveries are valid and enforceable, the efficiency is the only remaining variable in determining the water needed to be supplied to the District. Efficiency is a measure of how much water is required for system losses relative to actual headgate deliveries. Differences in efficiency, therefore, are directly convertible to acre-feet. The differences in efficiency, expressed as a quantity in acre-feet, may be added to or subtracted from the actual Lahontan Reservoir storage level before it is compared to the monthly storage objective. Thus the

diversions from the Truckee River, operation of other facilities (e.g., Stampede Reservoir) and decisions related to Lahontan Reservoir are made after the efficiency storage adjustments have been made. Operating decisions are made as if the adjusted storage reflected actual conditions.

(A) *Efficiency incentive credits.* In any year that the District's actual efficiency exceeds the target efficiency for the actual headgate delivery, two-thirds of the resultant savings, in water, will be credited to the District as storage in Lahontan. This storage amount will remain in Lahontan as water available to the District to use at its discretion consistent with Nevada and Federal law. Such uses may include wetlands (directly or incidentally), power production, recreation, a hedge against future shortages or whatever else the district determines. The storage is credited at the end of the irrigation season from which it was earned. This storage "floats" on top of the reservoir so that if it is unused it will be spilled first if the reservoir spills. The District may use all capacity of Lahontan Reservoir not needed for project purposes to store credits.

(B) *Efficiency disincentive debits.* In any year that the District's actual efficiency falls short of the target appropriate to the actual headgate deliveries, then the resultant excess water that was used is considered borrowed from the future. Thus it becomes a storage debit adjustment to the actual Lahontan Reservoir storage level for determining all operational decisions. The debit may accumulate but may not exceed a maximum as defined in § 418.1(c)(3)(ii). The debit must be offset by an existing incentive credit or, if none is available, by a subsequent incentive at a full credit (not a 2/3 credit) or finally by an allocation by the District to restrict actual headgate deliveries. This would only be done prospectively (a subsequent year) so the District and the water users can prepare accordingly. Since the debit does not impact immediately on other competing uses or the District (except in a real drought), it allows for planning ahead and averaging over time.

(C) *Efficiency targets.* The goal is to have the District operate at a reasonably efficient level. The OCAP establish reasonable efficiency targets. The key to the target efficiencies, therefore, is the application of "reasonable". To determine the efficiency target, the system delivery losses were divided into categories such as seepage, evaporation and operational losses. The "reasonable" level of savings for each category was then determined by



starting with current operating experience and applying the added knowledge from several possible measures researched, identified and

subjected to public comment. Not all of these measures were then utilized nor was their full potential savings claimed. The derivation of the efficiency targets,

including the specific measures and amounts, is identified in the following table.

#### NEWLANDS PROJECT WATER BUDGET

Line		1988 OCAP, <sup>1</sup> Base	1988 OCAP, 1992 as- sumptions	1988 OCAP, 1992 w/o additional acres	Proposed 1995 example
1	Irrigated Acreage (acres) .....	60,900	64,850	61,630	59,023
2	Maximum Headgate Entitlement <sup>2</sup> .....	226,450	237,485	226,555	206,230
	Distribution System Losses				
	Evaporation:				
3	Canals/Laterals .....	6,000	6,200	6,000	5,838
4	Regulatory Reservoirs .....	15,000	7,500	7,500	7,500
	Seepage:				
5	Canals/Laterals .....	50,000	51,000	48,500	46,481
6	Regulatory Reservoirs .....	7,000	4,000	4,000	4,000
7	Operational Losses .....	87,980	40,800	39,400	38,270
8	Total Losses <sup>3</sup> .....	165,980	109,500	105,400	102,089
9	Max. Allowable Diversion <sup>4</sup> (MAD) .....	392,430	346,985	331,955	308,319
10	Projected Efficiency (%) <sup>5</sup> Assuming 100% Water Use .....	58.4	68.4	68.2	66.9
11	Expected Headgate Entitlement Unused <sup>6</sup> .....	20,930	23,700	22,700	13,611
12	Diversion Reduction for Unused Water <sup>7</sup> .....	25,430	26,500	25,400	15,279
13	Expected Irrigation Diversions <sup>8</sup> .....	367,000	320,485	306,555	293,040
14	Expected Efficiency (%) <sup>9</sup> .....	56.0	66.7	66.5	<sup>10</sup> 65.7

<sup>1</sup> All values are in acre-feet except where noted. The first 3 columns of numbers come from the 1988 OCAP, Table 1.

<sup>2</sup> Derived by multiplying the acreage by the appropriate water duty.

<sup>3</sup> In deriving the 1988 OCAP water budget, it was recognized that the District had reduced losses by 7,400 acre-feet prior to 1988.

<sup>4</sup> Maximum Headgate Entitlement (line 2) plus Total Losses (line 8).

<sup>5</sup> Maximum Headgate Entitlement (line 2) divided by Maximum Allowable Diversion (line 9) multiplied by 100.

<sup>6</sup> Water delivery records show that, historically, lands have been irrigated with less than their full entitlement. In the 1988 OCAP base the unused portion of the entitlement was assumed to be approximately 9%; in the 1988 OCAP 10%; in the 1995 example 6.8%.

<sup>7</sup> Unused Water (line 11) plus a proportional share of Operational Loss (line 7).

<sup>8</sup> Maximum Allowable Diversion (line 9) minus Diversion Reduction (line 12).

<sup>9</sup> Maximum Headgate Entitlement (line 2) minus Unused Water (line 11) divided by Expected Irrigation Diversion (line 13) multiplied by 100.

<sup>10</sup> Expected efficiency at 93.4% use of headgate entitlement; other entries based on 90%.

(I) These water conservation measures and others currently available to the District are listed in the following

table. The table has been revised in this proposed OCAP based upon the Bureau of Reclamation's Final Report to

Congress of the Newlands Project Efficiency Study, 1994.

#### POSSIBLE WATER CONSERVATION MEASURES FOR THE NEWLANDS PROJECT

Conservation measures <sup>1</sup>	Expected savings in acre-feet (AF) per year <sup>2</sup>	Notes
1. Water ordering .....	1,000	Require 48-hour advance notice.
2. Adjust Lahontan Dam frequently .....	3++	Match releases to demand with daily adjustments.
3. Increase accuracy of delivery records .....	16,630	Account for deliveries to nearest cfs and to nearest minute.
4. Change operation of regulating reservoirs .....	4??	Eliminate use of all or parts of regulating reservoirs; drain at end of season.
5. Shorten irrigation season .....	4,000	Reduced by 2 weeks.
6. Control delivery system .....	++	Eliminate spills, better scheduling grouping deliveries.
7. System improvements .....	??	O&M activity: repair leaky gates, reshape canals, improve measuring devices.
8. Dike off 2/3 S-Line Reservoir .....	2,720	500 ft. dike; (5' evaporation, 0.75' seepage).
9. Dike off south half of Harmon Reservoir .....	2,130	5,000 ft. dike; large savings considering canal losses 95' evap., 1.8' seepage).
10. Dike off west half of Sheckler Reservoir .....	2,400	6,000 ft. dike.
11. Eliminate use of Sheckler Reservoir .....	4,000	Use for Lahontan spill capture only; restore 200 ft. of E-Canal; A-Canal is OK.
12. Line 20 miles of Truckee Canal .....	20,000	Reduces O&M.
13. Line large canals .....	26,100–31,000	Line large net losers first.
14. Line regulatory reservoirs .....	2.3	
15. Reuse drain water for irrigation .....	7,100	Blended irrigation water quality would be adequate.
16. Ditch rider training each year .....	??	
17. Canal automation .....	??	Reduced canal fluctuations.
18. Community rotation system .....	??	Grouping deliveries by area.

## POSSIBLE WATER CONSERVATION MEASURES FOR THE NEWLANDS PROJECT—Continued

Conservation measures <sup>1</sup>	Expected savings in acre-feet (AF) per year <sup>2</sup>	Notes
19. Reclamation Reform Act water conservation plan: a. Weed and phreatophyte control. b. Fix gate leaks. c. Water measurement. d. Automation. e. Communication.	??	District implementation of water conservation plan.
20. Pumps and wells for small diverters .....	400	
21. Water pricing by amount used .....	++	Incurs administrative costs to implement.
22. Incentive programs .....	??	For District personnel and/or water users.
23. Drain canals .....	1,065	

<sup>1</sup> The first seven measures were considered in developing the water budget in Table 1 for the 1988 OCAP. Additional measures could be implemented by the District to help achieve efficiency requirements.

<sup>2</sup> Water savings have been updated in accordance with Bureau of Reclamation's Report to Congress on Newlands Project Efficiency, April 1994.

<sup>3</sup> ++ indicates a positive number for savings but not quantifiable at this time.

<sup>4</sup> ?? indicates uncertainty as to savings.

(2) These measures are discretionary choices for the District. The range of measures available to the District provides a level of assurance that the target efficiency is reasonably achievable. The resultant efficiency targets were also compared to the range of efficiencies actually experienced by other irrigation systems that were considered comparable in order to provide a further check on "reasonable". Most of the delivery losses are relatively constant regardless of the amount of deliveries. The efficiency will necessarily vary with the amount of headgate deliveries.

(D) The target efficiency for any annual valid headgate delivery can be derived from the figure in Appendix A to this part.

(3) *Maximum allowable limits.* (i) *Maximum allowable diversions.* (A) The water budget in the table Newlands Project Water Budget shall be recalculated for each irrigation season to reflect anticipated water-righted acres to be irrigated. Based on the anticipated irrigation demand, the required target efficiency shall be recalculated each irrigation season. The maximum allowable diversion (MAD) for each year shall be determined based on: acres of eligible land anticipated to actually be irrigated in that year (§ 418.1(a)); the water duties for those lands (§ 418.1(b)); and the established efficiency of the project water distribution system (Appendix A). The MAD will be calculated annually to assure an adequate water supply for all water right holders whose water use complies with their decreed entitlement and these OCAP. The MAD is the maximum amount of water permitted to be diverted for irrigation use on the Project in that year. It is calculated to ensure full entitlements can be fulfilled, but is

expected to be significantly in excess of Project requirements. The MAD will be established by the Bureau at least two weeks prior to the start of each irrigation season. All releases of water from Lahontan Reservoir and diversions from the Truckee Canal (including any diversions from the Truckee Canal to Rock Dam Ditch) shall be charged to the MAD except as provided in §§ 418.3 and 418.9 of these OCAP.

(B) On the basis of the methodology adopted herein (i.e., actual irrigated acres multiplied by appropriate water duties divided by established project efficiency) an example of the MAD calculated for the projected irrigated acreage as shown in the table Newlands Project Water Budget would be 308,319 acre-feet for Proposed 1995 Example. The sample MAD corresponds to a system efficiency for full deliveries at 66.9% for 1995 actual acres. Appendix A shows the sliding scale for target efficiencies which will be used over the range of water supply condition and headgate deliveries expected in the future. Target efficiencies shall be based on the percentage of maximum headgate entitlement delivered and not on the percent of water supply available. In Appendix A of this part, the sliding scale for 1995 Actual Acres shall be used to determine that target efficiencies for all irrigation years subsequent to 1995.

(C) Adjustments in the MAD shall be made by the Bureau each year based on changes in irrigated eligible land from the prior year and subsequent decisions concerning transfers of Project water rights, using the methodology established herein.

(D) In the event the District concludes the MAD for a given year will not meet the water delivery requirements for the eligible land to be irrigated in that year

due to weather conditions, canal breaks, or some other unusual or unforeseen condition, the District shall submit a written request to the Bureau for such additional water considered necessary to make up for the specified loss and supply decreed entitlements. The District shall set forth a full detailed, factual statement of the reasons for the request. The Bureau shall promptly review the request and after consultation with the Federal Water Master and other interested parties, will determine if the request or any portion of it should be approved. The Bureau will make reasonable adjustments for unforeseen cause or events but will not make adjustments to accommodate waste or Project inefficiency. The Bureau will then notify the District of its determination. If the District does not agree with the Bureau's decision, it may seek judicial review. The Bureau and the District will seek to expedite the court proceeding in order to minimize any potential adverse impacts.

(ii) *Maximum Allowable Efficiency Debits (MED)*—The debits in Lahontan Reservoir storage from the District's actual efficiency falling short of the target can accumulate over time. If these amounts of borrowed storage get too large they may not be offset later by increased efficiencies and may severely impact the District's water users by an added "drought" on top of a real one. Therefore, a limit was placed on how much could be borrowed or accumulated. The limit should also be large enough to allow reasonable opportunity to average out over time. This maximum efficiency debit cushion is 26,000 acre-feet. However, unlike the MAD, it only applies to the subsequent year's operation. The MED is approximately 9% of the headgate entitlements.

**§ 418.2 Monitoring diversions.**

(a) *Operations.* (1) By the end of each month, the District shall submit to the Bureau's Lahontan Basin Projects Office reports for the previous month which document monthly inflow and outflow in acre-feet from the Truckee and Carson divisions of the Project for that month. Reports shall include any data the Bureau may reasonably require to monitor compliance with these OCAP.

(2) Accounting for farm headgate deliveries shall be based on the amount of water actually delivered to the water user. Project operations shall provide for the amount of water ordered and the distribution system losses.

(3) The District shall keep records of all domestic and other uses showing the purpose and amount of water usage for each entity. The District shall make the records available for review by the Bureau upon request. The Bureau shall have the right to audit all records kept by the District.

(b) *Operations monitoring.* (1) The Bureau will work in cooperation with the District to monitor the operation of the Project. The Bureau's personnel shall perform field inspections of water distribution during the irrigation season. Staff members of the Bureau's Lahontan Basin Projects Office and the District will meet as often as necessary during the irrigation season after each water distribution report has been prepared to examine the amounts of water used to that point in the season. On the basis of the information obtained from field observations, water use records, and consultations with District staff, the Bureau will determine at monthly intervals whether the rate of diversion is consistent with the OCAP for that year. The District will be informed in writing of suggested adjustments that may be made in management of diversions and releases as necessary to achieve target efficiencies and stay within the MAD.

(2) Project operations will be monitored in part by measuring flows at key locations. Specifically, Project diversions (used in the calculations under § 418.1(c) above) will be determined by adding flows measured at:

(i) Truckee Canal near Wadsworth—U.S. Geological Survey (USGS) gauge number 10351300;

(ii) Carson River below Lahontan Dam—USGS gauge number 10312150;

(iii) Rock Dam Ditch near the end of the concrete lining; and subtracting:

(iv) Flows measured at the Truckee Canal near Hazen—USGS gauge number 10351400;

(v) The Carson River at Tarzyn Road near Fallon (below Sagouspe Dam) for satisfying water rights outside of the

Project boundaries as described in § 418.3(l), USGS gauge number 10312275;

(vi) Estimated losses in the Truckee Canal; and

(vii) Spills, precautionary drawdown, and incentive water released at Lahontan Dam pursuant to §§ 418.3 and 418.9.

**§ 418.3 Operations and management.**

(a) *Power generation.* All use of water for power generation using Project water shall be incidental to releases charged against Project diversions, precautionary drawdown, incentive water (§ 418.9(c)), or spills.

(b) *Truckee and Carson River water use.* Project water shall be managed so that maximum use will be made of Carson River water and diversions of Truckee River water through the Truckee Canal will be minimized in order to make available as much Truckee River water as possible for use in the lower Truckee River and Pyramid Lake.

(c) *Diversions at Derby Dam.* Diversions of Truckee River water at Derby Dam shall be managed to the maximum extent practical with the objective of maintaining minimum terminal flow to Lahontan Reservoir or the Carson River except where these criteria specifically permit such diversions. Diversions to the Truckee Canal shall be managed to achieve an average terminal flow of 20 cubic feet per second (cfs) or less during times when diversions to Lahontan Reservoir are not allowed (the flows shall be averaged over the total time diversions are not allowed in that calendar year; i.e., if flows are not allowed in July and August and then are allowed in September then not allowed in October and November, the average flow will be averaged over the four months of July, August, October, and November). The Bureau will work cooperatively with the District on monitoring the flows at the USGS gage on the USGS gage on the Truckee Canal near Hazen to determine if and when flows are excessive and bringing the flows back into compliance when excessive. Increases in canal diversions which would reduce river flows below Derby Dam, by more than 20% in a 24-hour period will not be allowed when Truckee River flow, as measured by the gauge below Derby Dam, is less than or equal to 100 cfs. Diversions to the Truckee Canal will be coordinated with releases from Stampede Reservoir, in cooperation with the Federal Water Master, to minimize fluctuations in the Truckee River below Derby Dam in order to meet annual flow regimes established by the

United States Fish and Wildlife Service for listed species in the lower Truckee River.

(d) Diversions from the Truckee River to the Truckee Division—Sufficient water, if available, shall be diverted from the Truckee River through the Truckee Canal to meet the direct irrigation, domestic and other entitlements of the Truckee Division.

(e) Criteria for Diversions from the Truckee River to Lahontan Reservoir, January through June.

(1) Truckee River diversions through the Truckee Canal will be made to meet Lahontan Reservoir end-of-month storage objectives for the months of January through June. The current month storage objective will be based in part on the monthly United States April through July runoff forecast for the Carson River near Fort Churchill, to meet anticipated diversion requirements for the Carson Division, and target storage for Lahontan Reservoir. The Bureau in consultation with the District, Federal Water Master, Fish and Wildlife Service, the Pyramid Lake Paiute Tribe, and other affected parties will determine the exceedance levels and predicted Carson River inflows to use, based on the reliability of the forecast and other information such as river forecasts available from other sources. The end-of-month storage targets may be adjusted any time during the month as new forecasts or other information become available.

(2) The January through June storage objective will be calculated using the following relationship:

$LSOCM = TSM/J - (C1 \times AJ) + L + (C2 \times CDT)$  where:

LSOCM=current end-of-month storage objectives for Lahontan Reservoir.

TSM/J=current end-of-month May/June Lahontan Reservoir target storage.

$C1 \times AJ$ =forecasted Carson River inflow for the period from the end of the current month through May or June, with AJ being the Bureau's April through July runoff forecast for the Carson River at Fort Churchill and C1 being an adjustment coefficient.

L=an average Lahontan Reservoir seepage and evaporation loss from the end of the current month through May or June.

$C2 \times CDT$ =projected Carson Division demand from the end of the current month through May or June, with CDT being the total Carson Division diversion requirement (based on eligible acres anticipated to be irrigated times the appropriate duty times a 95% usage rate), and C2 being the estimate of the portion of the total diversion requirement to

be delivered during this period.

Values for TSM/J, C1, L and C2 are defined in the following table.

MONTHLY VALUES FOR LAHONTAN STORAGE COMPUTATIONS

	January	February	March	April	May	June
TSM/J .....	174.0	174.0	174.0	174.0	174.0	174.0
C1/MAY .....	0.863	0.734	0.591	0.394	.....	.....
C1/JUNE .....	1.190	1.061	0.918	0.721	0.327	.....
L/MAY .....	13.9	12.5	9.9	7.1	.....	.....
L/JUNE .....	18.2	16.8	14.2	11.4	4.3	.....
C2/MAY .....	0.30	0.30	0.28	0.18	.....	.....
C2/JUNE .....	0.47	0.47	0.45	0.35	0.17	.....

(3) For January through April, the Lahontan Reservoir storage objective for each month will be the lowest of the May calculation, the June calculation, or full reservoir (defined as 295,000 acre-feet using Truckee River diversions, but can fill above 295,000 acre-feet to 317,000 acre-feet with Carson River inflow and the use of flash boards).

(4) For May, the Lahontan Reservoir storage objective will be the lower of the June calculation or full reservoir.

(5) For June, the Lahontan Reservoir storage objective will be the June target storage.

(6) Once the monthly Lahontan Reservoir storage objective has been determined, the monthly diversion to the Project from the Truckee River will be based upon water availability and Project demand as expressed in the following relationship:

$$\text{TRD} = \text{TDD} + \text{TCL} + \text{CDD} + \text{LRL} + \text{LSOCM} - \text{ALRS} - \text{CRI}$$

where:

TRD=current month Truckee River diversion acre-feet to the Project.

TDD=current month Truckee River Division demand.

TCL=current month Truckee Canal conveyance loss.

CDD=current month Carson Division demand.

LRL=current month Lahontan Reservoir seepage and evaporation losses.

LSOCM=current month end-of-month storage objective for Lahontan Reservoir.

ALRS=current month beginning-of-month storage in Lahontan Reservoir. (Includes accumulated Stampede credit described below and further adjusted for the net efficiency penalty or efficiency credit described in §§ 418.1 and 418.9).

CRI=current month anticipated Carson River inflow to Lahontan Reservoir (as determined by Reclamation in consultation with other interested parties).

(7) The following procedure is intended to ensure that monthly storage

objectives are not exceeded. It may be implemented only if the following conditions are met:

(i) Diversions from the Truckee River are required to achieve the current month Lahontan Reservoir storage objective (LSOCM);

(ii) Truckee River runoff above Derby Dam is available for diversion to Lahontan Reservoir; and

(iii) Sufficient Stampede Reservoir storage capacity is available.

(8) The Bureau, in consultation with the Federal Water Master, the District, Fish and Wildlife Service, the Bureau of Indian Affairs, and the Pyramid Lake Paiute Tribe will determine whether the calculated current month Truckee River diversion to Lahontan Reservoir (TRD-TDD-TCL) may be reduced during the month and the amount of reduction credit stored in Stampede Reservoir. Reductions in diversions to Lahontan Reservoir with credit storage in Stampede Reservoir may be implemented to the extent that: The reduction is in lieu of a scheduled release from Stampede Reservoir for the purpose of supplementing flows to Pyramid Lake; and/or water is captured in Stampede Reservoir that is scheduled to be passed through and diverted to the Truckee Canal. Any proposal to reduce diversions to Lahontan Reservoir for Newlands Project credit purposes without a comparable reduction in release from Stampede Reservoir (any conversion of Stampede Reservoir project water to Newlands Project credit water) would have to be approved by the Fish and Wildlife Service.

(i) The diversion to Lahontan Reservoir may be adjusted any time during the month as revised runoff forecasts become available. The accumulated credit will be added to current Lahontan Reservoir storage (ALRS) in calculating TRD. If the sum of accumulated credit and Lahontan Reservoir storage exceeds 295,000 acre-feet, credit will be reduced by the amount in excess of 295,000 acre-feet. Credit will also be reduced by the

amount of precautionary drawdown or spills in that month. If the end-of-month storage in Lahontan Reservoir plus the accumulated credit in Stampede Reservoir at the end of June exceeds the end-of-month storage objective for Lahontan, the credit will be reduced by the amount exceeding the end-of-month storage objective.

(ii) Following consultation with the District, the Federal Water Master, and other interested parties as appropriate, the Bureau may release credit water for Project purposes from July 1 through the end of the irrigation season in which the credit accrues with timing priority given to meeting current year Project irrigation demands. Conveyance of credit water in the Truckee Canal shall be in addition to regularly scheduled diversions for the Project and will be measured at the USGS gauge number 10351300 near Wadsworth. Newlands credit water in Stampede Reservoir storage will be subject to spill and will not carry over to subsequent years. Newlands credit water in Stampede can be exchanged to other reservoirs and retain its priority.

(iii) The Bureau, in consultation with the District, the Federal Water Master, and other interested parties, may release Newlands Project credit water before July 1. Prior to such release, the credit shall be reduced to the extent that Lahontan Reservoir storage plus accumulated credit at the end of the previous month exceeds the storage objectives for that month. If any Newlands credit water remains in Stampede Reservoir storage after the end of the current irrigation season in which it accumulated, it will convert to water for cui-ui recovery and will no longer be considered available for Newlands credit water. Newlands credit water stored in Stampede Reservoir shall be available for use only on the Carson Division of the Newlands Project.

(9) Subject to the provisions of § 418.3(c), LSOCM may be adjusted as frequently as necessary when new information indicates the need and

diversions from the Truckee River to the Truckee Canal shall be adjusted daily or otherwise as frequently as necessary to meet the monthly storage objective.

(f) *Criteria for Diversion of Truckee River Water to Lahontan Reservoir, July through December.* Truckee River diversions through the Truckee Canal to Lahontan Reservoir from July through December shall be made only in accordance with the following table.

Operating month	Storage target (AF)
July .....	139,000
August .....	95,000
September .....	64,000
October .....	52,000
November .....	74,000
December .....	101,000

<sup>1</sup> Diversions shall be started to achieve the end-of-month storage targets listed in the table above and will be discontinued when storage is forecast to meet or exceed the end-of-month storage targets at the end of the month. Diversions may be adjusted any time during the month as conditions warrant (i.e., new forecasts, information from other forecasts becoming available, or any other new information that may impact stream forecasts). The end-of-the-month storage targets may be adjusted by procedures provided in § 418.9.

(g) *Rock Dam Ditch.* Project water may be diverted directly to Rock Dam Ditch from the Truckee Canal only when diversions cannot be made from the outlet works of Lahontan Reservoir. Such diversions will require the prior written approval of the Bureau and be utilized in calculating Project diversions. During the period January through June of such operation, the projected total delivery to Rock Dam Ditch from the end of the current month through May or June will be subtracted from the projected Carson Division demand (C2\* CDT) in calculating the current end-of-month storage objective for Lahontan Reservoir (LSOCM), and added to Truckee Division demand in calculating Truckee River diversion (TRD) in conformance with the procedures set forth in § 418.3(e).

(h) *Precautionary drawdown and spills from Lahontan Reservoir.* (1) Even though flood control is not a specifically authorized purpose of the Project, at the request of the District and in consultation with other interested parties and the approval of the Bureau, precautionary drawdown of Lahontan Reservoir may be made only for the purpose of limiting potential flood damage along the Carson River. Criteria for precautionary drawdown will be formulated by the Bureau in consultation with the District and other interested parties. The drawdown shall be scheduled sufficiently in advance

and at such a rate of flow in order to divert as much water as possible into the Project irrigation system for delivery to eligible land or storage in reregulating reservoirs for later use on eligible land. During periods of precautionary drawdown, or when water is spilled from Lahontan Reservoir, Project diversions will be determined by comparison with other year's data and normalized by comparison of differences in climatological data. The Bureau will determine the normalization in consultation with the District and other interested parties. Spills from Lahontan Reservoir and precautionary drawdown of the reservoir to create space for storing flood waters from the Carson River Basin that are in excess of the normalized diversions will not be used in calculating Project diversions. Water captured in Project facilities as a result of a precautionary drawdown or spill will not be counted as diversions to the Project nor will they be counted as storage in Lahontan Reservoir for the purpose of calculating Truckee River Diversions. The precautionary drawdown or spills that are captured in Project facilities shall be measured, used to the maximum extent possible, and counted as deliveries to eligible lands in the year of the drawdown. If all the drawdown water captured in Project facilities cannot be used in the year of capture for delivery to eligible lands then that water shall be delivered to eligible lands in subsequent years to the maximum extent possible and counted on the water card of the water user.

(2) If a precautionary drawdown in one month results in a failure to meet the Lahontan Reservoir storage objective for that month, the storage objective in subsequent months will be reduced by one-half of the difference between that month's storage objective and actual end-of-month storage. The Bureau shall not be liable for any damage or water shortage resulting from a precautionary drawdown.

(i) *Water use for other than Newlands Project purposes.* The District will release sufficient water to meet the vested rights below Sagouspe Dam as specified in the *Alpine* decree. These water rights are usually met by return flows. Releases for these water rights will in no case exceed the portion of 1,300 acre-feet per year not supplied by return flows. This water shall be accounted for at the USGS gage number 10312275 (the Carson River at Tarzyn Road near Fallon). Releases for this purpose will not be considered in determining Project diversions since the lands to which the water is being delivered are not part of the Project (See

§ 418.2(b)). Any flow past this gage in excess of the amount specified herein will be absorbed by the District as an efficiency loss.

(j) *Charges for water use.* The District shall maintain a financing and accounting system which produces revenue sufficient to repay its operation and maintenance costs and to discharge its debt to the United States. The District should give consideration to adopting a system which provides reasonable financial incentives for the economical and efficient use of water.

(k) *Distribution system operation.* The District shall permit only its authorized employees or agents to open and close individual turnouts and operate the distribution system facilities. After obtaining Bureau approval, the District may appoint agents to operate individual headgates on a specific lateral if it can be shown that the water introduced to the lateral by a District employee is completely scheduled and can be fully accounted for with a reasonable allowance for seepage and evaporation losses. If agents need to adjust the scheduled delivery of water to the lateral to accommodate variable field conditions, weather, etc., they must immediately notify the District so proper adjustments can be made in the distribution system. Each agent shall keep an accurate record of start and stop times for each delivery and the flow during delivery. This record will be given to the District for proper accounting for water delivered. The program of using agents to operate individual headgates will be reviewed on a regular basis by the District and the Bureau. If it is found that problems such as higher than normal losses, water not accounted for, etc., have developed on an individual lateral, the program will be suspended and the system operated by District employees until the problems are resolved.

#### § 418.4 Water rights

These OCAP govern water uses within existing rights. These OCAP do not in any way change, amend, modify, abandon, diminish, or extend existing rights. Water rights transfers will be determined by the Nevada State Engineer pursuant to the provisions of the *Alpine* decree.

#### § 418.5 Prohibited deliveries.

The District shall not deliver Project water or permit its use except as provided in these OCAP. No Project water will be permitted to be released in excess of the MAD or delivered to ineligible lands. Delivery of water to land in excess of established water duties is prohibited.

**§ 418.6 Violations.**

Violations of the terms and provisions of these OCAP shall be reported immediately to the Bureau. The District or individual water users will be responsible for any shortages to water users occasioned by waste or excess delivery or delivery of water to ineligible land as provided in the OCAP.

**§ 418.7 Enforcement.**

(a) *Conditions of delivery.* There are four basic elements for enforcement with all necessary quantities and review determined in accordance with the relevant sections of this OCAP

(1) *Valid headgate deliveries.* In the event it is determined that water was delivered in ineligible land or in excess of the appropriate water duty then:

(i) The District will stop such illegal delivery immediately;

(ii) The District will notify the Bureau of the particulars including location and amounts—known or estimated;

(iii) The amount will not be included as a valid headgate for purposes of computing the Project efficiency and resultant incentive credit or debit to Lahontan storage; and

(iv) If the amount applies to a prior year, then the amount will be treated directly as a debit to Lahontan storage in the same manner as an efficiency debit.

(2) *District efficiency.* To the extent that the actual District efficiency determined for an irrigation season is greater or less than the OCAP established target efficiency as determined for the corresponding actual valid headgate deliveries, then the difference in efficiency, expressed as a quantity in acre-feet, may be added to or subtracted from the actual Lahontan Reservoir storage level before it is compared to the monthly storage objective as follows:

(i) *Greater efficiency.* Credited to the District as storage in Lahontan (subtracted) from any accumulated debit, or two-thirds as storage in Lahontan for their discretionary use in accordance with state law.

(ii) *Less efficient.* Debited (added) to Lahontan storage as an adjustment to the actual storage level.

(3) *Maximum Allowable Diversion (MAD).* The MAD shall be computed each year to deliver full entitlements at established Project efficiencies. Project diversions shall not exceed the MAD. Within the operating year, the Bureau will notify the District in writing of any expected imminent violations of the MAD. The District will take prompt action to avoid such violations. The Bureau will exercise reasonable latitude month-to-month to accommodate the

District's efforts to avoid exceeding the MAD.

(4) *Maximum Efficiency Debit (MED).* If the MED exceeds 26,000 AF at the end of any given year, the District shall prepare and submit to the Bureau for review and approval, a plan detailing the actions the District will take to either earn adequate incentive credits or to restrict deliveries to reduce the MED to less than 26,000 AF by the end of the next year. The plan shall be submitted to the Bureau in writing prior to the date of March 1 immediately subsequent to the exceeding of the MED. If the District fails to submit an approvable plan, Project allocations will be reduced by an amount equal to the MED in excess of 26,000 plus 13,000 (one-half the allowable MED). Nominally this will mean a forced reduction of approximately five percent of entitlements. The Bureau will notify the District in writing of the specific allocation and method of derivation in sufficient time for the District to implement the allocation. Liabilities arising from shortages occasioned by operation of this provision shall be the responsibility of the District or individual water users.

(b) *Project management.* In addition to the provisions of § 418.7(a), in the event the District is found to be operating Project facilities or any part thereof in substantial violation of these OCAP, then, upon the determination by the Bureau, the Bureau may take over from the District the care, operation, maintenance, and management of the diversion and outlet works (Derby Dam and Lahontan Dam/Reservoir) or any or all of the transferred works by giving written notice to the District of such determination and the effective date thereof. Following written notification from the Bureau, the care, operation, and maintenance of the works may be retransferred to the District.

(c) *Future contracts.* The Bureau shall provide in new, amended, or replacement contracts for the operation and maintenance of Project works, for the reservation by the Secretary of rights and options to enforce these OCAP.

**§ 418.8 Water management and conservation.**

(a) *Conservation measures.* (1) Specific conservation actions will be needed for the District and its members to achieve a reasonable efficiency of operation as required by the OCAP. The District is best able to determine the particular conservation measures that meet the needs of its water users. This assures that the measures reflect the priorities and collective judgment of the water users; and will be practical,

understandable and supported. The District also has the discretion to make changes in the measures they adopt as conditions or results dictate

(2) The District will keep the Bureau informed of the measures they expect to utilize during each year. This will allow appropriate monitoring for information helpful to evolving other suggestions and for use by other Districts. The Bureau will work cooperatively in support of the District's selection of measures and methods of implementation.

(b) *Cooperative programs.* The Bureau and the District will work cooperatively to develop a water management and conservation program to promote efficient management of water in the Project.

(1) The Bureau will provide technical assistance to the District and cooperatively assist the District in their obligations and efforts to:

(i) Document and evaluate existing water delivery and measurement practices;

(ii) Implement improvements to these practices; and

(iii) Evaluate and, where practical, implement physical changes to Project facilities.

(2) The program will emphasize developing methods, including computerization and automation, to improve the District's operations and procedures for greater water delivery conservation.

**§ 418.9 Implementation.**

The intent of the implementation strategy for these OCAP is to ensure that the Project delivers water within entitlements at a reasonable level of efficiency as a long term average. The incentives and disincentives provided herein are designed to encourage local officials with responsibilities for Project operations to select and implement through their discretionary actions, operating strategies which achieve the principles of the OCAP. The specified efficiencies (Appendix A of this part) were developed considering implementation of reasonable conservation measures, historic project operations, economics, and environmental effects. The efficiency target will be used as a performance standard to establish at the end of each year on the basis of actual operations, whether the District is entitled to a performance bonus in the form of incentive water or a reduction in storage for the amount borrowed ahead. The components of the implementation strategy are outlined below.

(a) *Valid headgate deliveries.* Project water may be delivered to headgates

only as provided in § 418.1(a). Water delivered outside the entitled irrigable land and/or outside the court set water duty is difficult to quantify at best because it is not typically measured. Since it is not likely to be a part of the total actual headgate deliveries, yet is a part of the total deliveries to the Project it will manifest itself directly as a lower efficiency. Thus, it will either reduce the District's incentive credit or increase the storage debit by the amount improperly diverted. All other users outside the Project are thereby held harmless but the District incurs the consequence. This approach should eliminate any potential disputes between the District and the Bureau over quantifying the amount of water misappropriated.

(b) *Efficiencies.* The established target efficiencies pursuant to these OCAP are shown in Appendix A of this part. The efficiency of the Project will vary with the amount of entitlement water actually delivered at the headgates. Since most of the distribution system losses such as evaporation and seepage do not change significantly with the amount of water delivered (i.e., these losses are principally a function of water surface area and the wetted perimeter of the canals), the Project efficiency requirement is higher as the percent of entitlement water actually delivered at the headgates increases. The actual efficiency is calculated each year after the close of the irrigation season based on actual measured amounts. The application of any adjustments to Lahontan Reservoir storage or Truckee River diversions resulting from the efficiency is always prospective.

(c) *Incentives for additional long term conservation.* As an incentive for the District to increase the efficiency of the delivery system beyond the expected efficiency of 65.7% (66.9% with full delivery) as shown in the table Newlands Project Water Budget, Proposed 1995 Example, the District will be allowed to store and use the Carson River portion of the saved water at their discretion, in accordance with Nevada State Law. Thus, if the District is able to operate the Project in such a manner that the expected efficiency is exceeded, the District may store in Lahontan Reservoir two-thirds ( $\frac{2}{3}$ ) of the additional water saved. (The remaining one-third ( $\frac{1}{3}$ ) of the water saved will remain in the Truckee River or through reduced diversions to Lahontan Reservoir). This water will be considered incentive water saved from the Carson River and will not be counted as storage in determining diversions from the Truckee River on

computing the target storage levels for Lahontan Reservoir under these OCAP. For purposes of these OCAP, incentive water is no longer considered Project water. The District may use the water for any purpose (e.g., wetlands, storage for recreation, power generation, shortage reduction) that is consistent with Nevada State Law and Federal Law. The water will be managed under the District's discretion and may be stored in Lahontan Reservoir until needed subject to the limitations in § 418.9(d).

(d) The amount of incentive water stored in Lahontan Reservoir will be reduced under the following conditions:

- (1) There is a deficit created and remaining in Lahontan Reservoir from operations penalties in a prior year;
  - (2) The District releases the water from the reservoir for its designated use;
  - (3) During a spill of the reservoir, the amount of incentive water shall be reduced by the amount of spill; and
  - (4) At the discretion of the District, incentive water may be used to offset the precautionary drawdown adjustment to the Lahontan storage objective.
- (5) At the end of each year, the amount of incentive water will be reduced by the incremental amount of evaporation which occurs as a result of the increased surface area of the reservoir due to the additional storage. The evaporation rate used will be either the net evaporation measured or the net historical average after precipitation is taken into account. The method of calculation will be agreed to by the District and the Bureau in advance of any storage credit.
- (e) An example of this concept is:

Example: Incentive Operation—At the end of the 1996 irrigation season, the Bureau and the District audit the District's water records for 1996. The District's water delivery records show that 194,703 acre-feet of water were delivered to farm headgates. On the basis of their irrigated acreage that year (59,075) the farm headgate entitlement would have been 216,337 acre-feet. On the basis of 90% deliveries for 59,075 acres (194,203 divided by 216,337 = 0.90) the established Project efficiency requirements was 65.1%. On the basis of the established Project efficiency (66.1%), the Project diversion required to make the headgate deliveries would be expected to be 291,909 acre-feet (194,703 divided by 0.651 = 291,909). An examination of Project records reveals that the District only diverted 286,328 acre-feet which demonstrated actual Project efficiency was 68% and exceeded requirements of these OCAP. The 5,581 acre-feet of savings (291,909 - 286,328 = 5,581) constitutes the savings achieved through efficiency improvements and the District would then be credited two-thirds ( $\frac{2}{3}$ ) of this water (deemed to be Carson River

water savings) as incentive water. This incentive water may be stored in Lahontan Reservoir or otherwise used by the District in its discretion consistent with State and Federal Law (e.g., power generation, recreation storage, wildlife, drought projection, etc.).

(f) *Disincentives for lower efficiency.*

(1) If the District failed to meet the efficiencies established by these OCAP, then, in effect, the District has borrowed from a subsequent year. The amount borrowed will be accounted for in the form of a deficit in Lahontan Reservoir storage. This deficit amount will be added to the actual Lahontan Reservoir storage quantity for the purpose of determining the Truckee River diversions to meet storage objectives as well as all other operating decisions.

(2) The amount of the deficit will be cumulative from year to year but will not be allowed to exceed 26,000 acre-feet (the expected variance between the MAD and actual water use). This limit is expected to avoid increasing the severity of drought and yet still allow for variations in efficiency over time due to weather and other factors. This approach should allow the District to plan its operation to correct for any deficiencies.

(3) The deficit can be reduced by crediting incentive water earned by the District or reducing the percentage of headgate entitlement delivered either through a natural drought or by the District and its water users administratively limiting deliveries while maintaining an efficiency greater than or equal to the target efficiency.

(4) In the event of a natural drought if the shortage to the headgates is equal to or greater than the deficit then the deficit is reduced to zero. If the shortage to headgates is less than the deficit then the deficit is reduced by an amount to the headgate shortage. During a natural drought, if the percentage of maximum headgate entitlement delivered is 75% or more than the District will be subject to the target efficiencies and resultant deficits or credits.

(5) If the District has a deficit in Lahontan Reservoir and earns incentive water, the incentive water must be used to eliminate the deficit before it can be used for any other purpose. The deficit shall be credited on a 1 to 1 basis (i.e., actual efficiency savings rather than  $\frac{1}{3}$ – $\frac{2}{3}$  for incentive water).

(g) An example of the penalty concept is:

Example: Penalty—In 1996 the District delivers 90% of the maximum headgate entitlement or 194,703 acre-feet  $216,337 \times .90$  but they actually divert 308,000 acre-feet. The efficiency of the Project is 63.2% (194,703 divided by 308,000). Since the



established efficiency of 65.1% would have required a diversion of only 299,083 acre-feet (194,703 divided by .651) the District has operated the system with 8,917 acre-feet of excess losses. Therefore, 8,917 acre-feet was borrowed and must be added to the actual storage quantities of Lahontan Reservoir for calculating target levels and Truckee River diversions.

(h) *Maximum Allowable Diversion (MAD)*. (1) The MAD established in these OCAP is based on the premise that the Project should be operated to ensure that it is capable of delivering to the headgate of each water right holder the full water entitlement for irrigable eligible acres and includes distribution system losses. The MAD will be established (and is likely to vary) each year. The annual MAD will be

calculated each year based on the actual acreage to be irrigated that year.

(2) Historically, Project water users have not ordered or used their full entitlement. Actual deliveries at farm headgates have been approximately 90 percent of entitlements and this practice is expected to continue but the percentage is expected to change. This variance between headgate deliveries and headgate entitlement will be calculated annually under these OCAP and is allowed to be diverted if needed and thereby provides an assurance that full headgate deliveries can be made. The expected diversion and associated efficiency target for the examples shown in the Newlands Project Water Budget table would be: 285,243 AF and 65.1% in 1996 and beyond. These are well

below the MAD limits; however, the District may divert up to the MAD if it is needed to meet valid headgate entitlements.

**§ 418.10 Fallon Paiute-Shoshone Indian Reservation.**

Nothing in these OCAP shall affect the authority of the Fallon Paiute-Shoshone Tribes to use water on Tribes' reservation which was delivered to the Reservation in accordance with these OCAP, nor shall these OCAP operate to restrict the Secretary's trust responsibility with respect to the Fallon Paiute-Shoshone Tribes.

Appendix A to Part 418—Expected Project Distribution System Efficiency

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FIGURE 1: EXPECTED PROJECT DISTRIBUTION SYSTEM EFFICIENCY

