

AGREEMENT FOR TRANSFER OF CONSERVED WATER

by and between
IMPERIAL IRRIGATION DISTRICT,
a California irrigation district

("IID"), and

SAN DIEGO COUNTY WATER AUTHORITY,
a California county water authority

("Authority")

Dated: April 29, 1998

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APPENDICES

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**AGREEMENT BETWEEN IMPERIAL IRRIGATION DISTRICT
AND SAN DIEGO COUNTY WATER AUTHORITY
FOR TRANSFER OF CONSERVED WATER**

THIS AGREEMENT FOR TRANSFER OF CONSERVED WATER ("**Agreement**") is made and entered into by IMPERIAL IRRIGATION DISTRICT, a California irrigation district ("**IID**"), and SAN DIEGO COUNTY WATER AUTHORITY, a California county water authority ("**Authority**"), as of April 29, 1998. The IID and the Authority are sometimes referred to individually as a "**Party**" and collectively as the "**Parties**."

R E C I T A L S:

A. The IID is an irrigation district organized under the California Irrigation District Law, codified at § 20500 et seq. of the California Water Code, and delivers Colorado River water in Imperial County, California for irrigation and domestic purposes.

B. The IID's senior water rights (the "**IID Senior Water Rights**") arise under California law from appropriations of Colorado River water and are recognized as part of California's apportionment of Colorado River water pursuant to a 1932 water delivery contract for permanent service with the Secretary of the Interior under the Boulder Canyon Project Act, Act of December 21, 1928, 45 Stat. 1057, as amended, 43 U.S.C. § 617 et seq. ("**Boulder Canyon Project Act**"). The IID Senior Water Rights include a third, sixth, and seventh priority among California right-holders to use Colorado River water and also include present perfected rights, with a priority date of 1901, as defined by the United States Supreme Court in its decree and supplemental decree, entered March 9, 1964, and January 9, 1979, respectively, in the case of Arizona v. California, 376 U.S. 340 and 439 U.S. 419.

C. The Authority is a county water authority incorporated under the California County Water Authority Act, Stats. 1943, c.545 as amended, codified at § 45-1 et seq. of the Appendix to the California Water Code, for the purpose of augmenting San Diego County's minimal local water resources with a safe, reliable, and sufficient supply of imported water.

D. The Authority, through its 23 member-public agencies, supplies water to approximately 2,700,000 San Diego County residents, government agencies, businesses and agricultural users.

E. The Authority seeks to acquire an independent, reliable, alternate long-term water supply to provide drought protection and to accommodate anticipated growth in municipal, domestic, and agricultural uses.

F. The IID may undertake "Water Conservation" (defined below) efforts and will contract with the IID Landowners to undertake Water Conservation efforts in exchange for payment by the Authority.

G. The Authority is willing to make payments to the IID in order to obtain the right to use "Conserved Water" (defined below) created by the Water Conservation efforts of the IID, if any, and the IID Landowners.

H. The purpose of this Agreement is to set forth the terms and conditions under which the Authority will make payments to the IID for the transfer of a specified quantity of Conserved Water to the Authority pursuant to California law, including without limitation §§ 1011, 1012 and 1013 of the California Water Code, as in effect on the Execution Date.¹ The Conserved Water transferred by the IID to the Authority shall arise under and retain the priority of the IID Senior Water Rights.

I. This Agreement provides for the voluntary transfer of Conserved Water from the IID to the Authority in furtherance of California's declared public policy in support of voluntary water transfers.

J. The Parties do not intend to and under the Agreement do not in any way transfer, assign, encumber, or grant the Authority any ownership interest in or control over any of the IID Senior Water Rights.

K. The Effective Date (defined below) of this Agreement and the activities described herein are contingent upon compliance with the California Environmental Quality Act, California Public Resources Code §§ 21000 et seq.; 14 California Code of Regulations §§ 15000 et seq. ("**CEQA**"), and the National Environmental Policy Act, Title 4, United States Code §§ 4321 et seq.; 40 Code of Federal Regulations §§ 1500.1 et seq. ("**NEPA**").

A G R E E M E N T :

NOW THEREFORE, in consideration of the covenants and agreements contained in this Agreement and for other good and valuable consideration, the receipt and sufficiency of which the Parties hereby acknowledge, the IID and the Authority agree that the terms and conditions of this Agreement are as follows:

¹ Copies of statutes referenced in this Agreement as "in effect on the Execution Date" are attached as Appendix 1.

ARTICLE 1

DEFINITIONS AND RULES OF CONSTRUCTION

1.1 **Definitions.** As used in this Agreement, the following terms have the following meanings.

(a) **Actual Wheeling Rate.** The rate per AF paid to MWD by the Authority for wheeling water from Lake Havasu to the Conveyance Path Terminus, calculated by dividing the Agreement Year annual total of all required payments (inclusive of any Supplemental Wheeling Charges, exclusive of any fixed costs, and net of any benefit credits) by the difference between the total Agreement Year annual volume of Conserved Water transferred by the IID to the Authority less any Conveyance Losses from Lake Havasu to the Conveyance Path Terminus.

(b) **Additional Available Water.** As defined in § 3.2(a).

(c) **Adjunct Contract.** As defined in § 3.2(d).

(d) **Administrative Committee.** As defined in § 17.1.

(e) **Advisor.** As defined in § 17.2.

(f) **AF.** Acre-foot, a measure of volume.

(g) **AFY.** Acre-feet per year.

(h) **Agreement Year.** Other than with respect to Agreement Year 1, an Agreement Year comprises one Calendar Year, commencing on January 1 and terminating on December 31. Agreement Year X is also sometimes referred to more briefly as "Year X." Except where otherwise stated or where the context obviously requires otherwise, Year X refers to Year X of the Initial Term.

(i) **Agreement Year 1.** The period commencing on the Initial Transfer Date and terminating on December 31 of that same Calendar Year, or the following Calendar Year, as determined by the following sentences. If the Initial Transfer Date is on or before June 30, Agreement Year 1 terminates on December 31 of that same Calendar Year. If the Initial Transfer Date is on or after July 1, Agreement Year 1 terminates on December 31 of the following Calendar Year. Thus, the length of Agreement Year 1 may vary from approximately six (6) to eighteen (18) months, but in all events Agreement Year 1 terminates at the end of a Calendar Year.

(j) **All-American Canal.** The canal and appurtenant works from Imperial Dam to the Imperial and Coachella Valleys authorized as a component of the Boulder Canyon Project Act.

(k) **Annexation Charges.** As defined in § 5.1(a).

- (l) **Applicable Discount Rate**. As defined in § 5.1(b).
- (m) **Assignment**. Any sale, gift, pledge, hypothecation, encumbrance, or other transfer of all or any portion of the rights in or arising from this Agreement to any person or entity (excluding such a transfer by operation of law), regardless of the legal form of the transaction in which the attempted transfer occurs.
- (n) **Authority Environmental Cost Ceiling**. A cost that does not exceed in amount one million dollars (\$1,000,000) (Effective-Date Dollars).
- (o) **Authority Shortage**. As defined in § 5.1(c).
- (p) **Base Contract Price**. As defined in § 5.1(d).
- (q) **Base Wheeling Rate**. The calculated rate per AF for costs incurred by MWD from the Authority's wheeling Conserved Water from Lake Havasu to the Conveyance Path Terminus, calculated by the Agreement Year annual total of all Reach Wheeling Charges divided by the difference between the Agreement Year annual volume of Conserved Water transferred by the IID to the Authority and any Conveyance Losses from Lake Havasu to the Conveyance Path Terminus. An example of the method and calculation of the Base Wheeling Rate is included in Exhibit A.
- (r) **Benchmark Date**. January 1 of the same Calendar Year as the last day of Agreement Year 1.
- (s) **Best Available MWD Information**. To the extent a term or condition under this Agreement requires the utilization of information or data, the source for which is MWD, such information or data must be equally available to or verifiable by both Parties. If such required information or data is not available from MWD in the form, for the time period, for the specific Conveyance Path Reach, or in the detail required by the Agreement or desired by the Parties, then the Parties agree that the best available information from MWD or otherwise that fairly discloses a reasonable estimate of the required information or data shall be utilized.
- (t) **BOR**. Bureau of Reclamation.
- (u) **Business Day**. A day that is not a Saturday, Sunday, or federal or California state legal holiday.
- (v) **Calendar Year**. The year running from January 1 through December 31.
- (w) **CEQA**. As defined in Recital K.
- (x) **Coachella Canal**. The branch of the All-American Canal leading from the All-American Canal to the CVWD service area authorized as a component of the Boulder Canyon Project Act.

(y) **Colorado River Aqueduct**. The canal and appurtenant facilities used to divert Colorado River water from Lake Havasu to Lake Mathews in the MWD service area.

(z) **Competing Proposed Transaction**. As defined in § 4.4(b).

(aa) **Conserved Water**. Water, or the right to the use of water, that may be sold, leased, exchanged, or otherwise transferred under § 1011(b) of the California Water Code, as in effect on the Execution Date.

(ab) **Consumer Price Index or CPI**. The Consumer Price Index for all Urban Consumers (Los Angeles-Anaheim-Riverside, California, All Items, Base 1982-84 = 100), as published by the United States Department of Labor, Bureau of Labor Statistics. If the publication of the Consumer Price Index is discontinued, or if the Consumer Price Index is altered in some material manner, including changing the name of the index, the geographic area covered, the consumers or workers so included, or the base year, the Parties must use their reasonable best efforts to agree on a substitute index or procedure that reasonably reflects and monitors consumer prices.

(ac) **Contracting Landowner**. A Landowner that has contracted with the IID to undertake Water Conservation efforts and reduce its use of Colorado River water.

(ad) **Contributed Power**. As defined in § 1.1(ai).

(ae) **Conveyance Loss**. The actual loss of water to evaporation, seepage, or other similar cause resulting from transportation of the Conserved Water from Lake Havasu to the Conveyance Path Terminus.

(af) **Conveyance Path**. The water conveyance facilities belonging to the MWD and necessary to be utilized to convey Colorado River water from Lake Havasu to the Conveyance Path Terminus.

(ag) **Conveyance Path Capital Costs**. The amortized amount of the net book value for the Agreement Year of the MWD facility(ies) for a specific Conveyance Path Reach for its remaining useful life, based on the most recent estimate of MWD's historical weighted average cost of capital, divided by the Conveyance Path Reach Capacity multiplied by the Reach Quantity.

(ah) **Conveyance Path Operation and Maintenance Costs**. The actual operation and maintenance costs incurred by MWD for the Agreement Year for the facility(ies) for a specific Conveyance Path Reach divided by the Conveyance Path Reach Capacity multiplied by the Reach Quantity.

(ai) **Conveyance Path Power Costs**. The actual incremental power costs incurred by MWD for the Agreement Year to wheel the Reach Quantity along the

Conveyance Path Reach, including a reasonable credit for any offsetting benefits, such as the value of power generated by the conveyance of the Reach Quantity, unless

(i) either Party arranges to make available to MWD the quantity of power needed to wheel the Reach Quantity at terms cheaper than MWD's incremental power costs ("**Contributed Power**") ; and

(ii) the provision of any such Contributed Power is an in-lieu payment of MWD's incremental power costs;

The calculation of any reasonable credit for the power generated by the wheeling of the Reach Quantity shall not be affected by the provision of any Contributed Power.

(aj) **Conveyance Path Reach**. Each segment of the Conveyance Path identified in the Wheeling condition provision of §§ 7.1(e)(iii) and 8.1(e)(iii).

(ak) **Conveyance Path Reach Capacity**. The total aggregate rated capacity for a Conveyance Path Reach.

(al) **Conveyance Path Replacement Costs**. Replacement costs as defined in Water Code § 1811(d), as in effect on the Execution Date, and calculated as the amortized costs of MWD for the Agreement Year for actual purchases and expenditures for the useful life of replacement investments for a specific Conveyance Path Reach, based on the most recent estimate of MWD's historical weighted average cost of capital, divided by the Conveyance Path Reach Capacity multiplied by the Reach Quantity.

(am) **Conveyance Path Terminus**. The point in northern San Diego County near the San Luis Rey River at which water being delivered by MWD to the Authority leaves pipelines or facilities operated or controlled by MWD and enters pipelines or facilities operated or controlled by the Authority.

(an) **Cover Contract**. As defined in § 11.4.

(ao) **Cover Water**. As defined in § 11.4.

(ap) **Critical Year**. A Critical Year is the lowest hydrological availability condition of the Sacramento Valley Water Index as determined on an annual basis by a report prepared by the California Department of Water Resources. The hydrological condition from most plentiful to least plentiful are Wet, Above Normal, Normal, Below Normal, Dry and Critical.

(aq) **CVWD**. Coachella Valley Water District, a county water district organized under the California County Water District Law, codified at § 30000 *et seq.* of the California Water Code.

(ar) **Delegation**. Any sale, gift, pledge, hypothecation, encumbrance, or other transfer of all or any portion of the obligations or liabilities in or arising from this

Agreement to any person or entity (excluding such a transfer by operation of law), regardless of the legal form of the transaction in which the attempted transfer occurs.

(as) **Disputes**. As defined in Article 17.

(at) **Dispute Panel**. As defined in § 17.6.

(au) **Drought Transaction**. As defined in § 3.2(e).

(av) **Due Date**. As defined in § 6.1(a).

(aw) **Effective Date**. The date on which (i) compliance with CEQA and NEPA has been accomplished, and (ii) all conditions to the Parties' obligations hereunder as set forth in Articles 7 and 8 below have been satisfied or waived, at which time the IID shall be obligated to transfer Conserved Water and the Authority shall be obligated to pay for the transfer of Conserved Water, as set forth in the Agreement.

(ax) **Effective-Date Dollars**. That nominal dollar amount which, when adjusted based on the Consumer Price Index, is equivalent to the specified dollar amount in the Agreement measured as of the Effective Date. The adjustment is calculated according to the following formula:

$$\text{Nominal-Dollar Amount} = \text{\$nnn(Effective-Date Dollars)} \times \frac{CPI_n}{CPI_e}$$

Where:

CPI_e is the Consumer Price Index published during the thirty days (30) before the Effective Date, and

CPI_n is the Consumer Price Index published during the thirty days (30) before the applicable adjustment date, and

$\text{\$nnn(Effective-Date Dollars)}$ is the amount stated in the Agreement.

Suppose, for example, that the applicable provision requires payment of one million dollars (\$1,000,000) (Effective-Date Dollars). Assume further that CPI_e is 161.5, and that CPI_n is 172. The actual amount that must be paid is:

$$\$1,065,015.48 = \$1,000,000 \times \frac{172.0}{161.5}$$

(ay) **Eligibility Criteria**. As defined in § 5.1(f).

(az) **Eligible Transaction**. As defined in § 5.1(g).

(ba) **Environmental Decision Date**. The date when all notices of exemption, notices of determination and records of decision pursuant to CEQA or NEPA, to the extent required in order to implement activities under this Agreement in compliance

with CEQA and NEPA, have been properly issued and filed, and all legal challenges thereto (if any) have been finally resolved.

(bb) **Event of Default**. As defined in §§ 15.1 and 15.2.

(bc) **Event Constituting An Emergency**. An event which, if not promptly resolved, may result in imminent danger to the public health, safety or welfare.

(bd) **Excluded Connection Maintenance Charges**. As defined in § 5.1(h).

(be) **Excluded Property Taxes**. As defined in § 5.1(i).

(bf) **Execution Date**. The date on which the Parties have signed this Agreement. If the Parties sign on different dates, the Execution Date is the date on which the later-to-sign Party has signed the Agreement.

(bg) **Final Order of Approval**. The order, decision, or other action (collectively "order") issued by the SWRCB or the BOR satisfying the Approval Conditions of §§ 7.1(d)(i) and (ii) and 8.1(d)(i) and (ii) below, if judicial review of such order is not timely sought; and if judicial review is timely sought, then the final nonappealable order entered by any reviewing court.

(bh) **Flood Control Release**. The release of water from Lake Mead and the operation of Hoover Dam for flood control purposes pursuant to the reservoir operating criteria specified in the February 8, 1984 Field Working Agreement between the U.S. Army Corps of Engineers and the BOR, and the U.S. Army Corps of Engineers regulations contained in 33 Code of Federal Regulations 208.11, as in effect on the Execution Date.

(bi) **Fundamental Change**. As defined in § 5.1(j).

(bj) **Fundamental Change Date**. As defined in § 5.1(k).

(bk) **IID Environmental Cost Ceiling**. A cost that is not of a magnitude that might exceed fifteen million dollars (\$15,000,000) (Effective-Date Dollars), as determined solely by the IID through the exercise of its complete discretion.

(bl) **IID/MWD 1988 Agreement**. The 1988 agreement between the IID and the MWD, as amended by the 1989 Approval Agreement between the IID, MWD, CVWD and the Palo Verde Irrigation District, for the transfer of water from the IID to the MWD.

(bm) **IID Safe Harbor Quantity**. As defined in § 4.4(a)(ii).

(bn) **IID Senior Water Rights**. As defined in Recital "B."

- (bo) **Initial Term**. As defined in § 4.1(a).
- (bp) **Initial Transfer Date**. The date that is one hundred eighty (180) days after the Effective Date, even if that one hundred eightieth (180th) day is not a Business Day.
- (bq) **Interim Agricultural Water Service Charges**. As defined in § 5.1(l).
- (br) **Landowner**. A legal owner of real property located within the jurisdictional boundary of the IID.
- (bs) **Last Best Offer**. As defined in § 4.4(d)(i).
- (bt) **Late Payment Charge**. As defined in § 6.3.
- (bu) **Lower Colorado River Basin**. Those parts of the states of Arizona, California, Nevada, New Mexico, and Utah within and from which waters naturally drain into the Colorado River System below Lee Ferry, Arizona; and parts of said states located without the drainage area of the Colorado River System which are now or shall hereafter be beneficially served by water diverted from the System below Lee Ferry; and the California counties of Imperial, San Diego, Riverside, Orange, San Bernardino, Los Angeles and Ventura.
- (bv) **Material Change**. As defined in § 4.2(c).
- (bw) **Minimum Qualifying Transaction Threshold**. As defined in § 5.1(m).
- (bx) **Mutual Aid**. Action(s) undertaken by the Authority to supply water to any public water supplier in need of water as the result of an Event Constituting An Emergency, natural disaster or system or facility failure.
- (by) **MWD**. Metropolitan Water District of Southern California, organized under the Metropolitan Water District Act, as amended, codified at § 109-1 et seq. of the Appendix to the California Water Code.
- (bz) **MWD Billing Period**. As defined in § 5.1(n).
- (ca) **MWD Full Water Rate**. As defined in § 5.1(o).
- (cb) **"N" Year Rolling Average**. As defined in § 5.1(p).
- (cc) **NEPA**. As defined in Recital K.
- (cd) **Neutral County**. As defined in § 16.3.

- (ce) **New Agreement Price.** As defined in § 5.3(b)(vii).
- (cf) **New Direct Property Charges.** As defined in § 5.1(r).
- (cg) **Non-Volume-Sensitive Charges.** As defined in § 5.1(s).
- (ch) **Notice of Dispute.** As defined in § 17.4.
- § 11.3(b). (ci) **Notice of Exercise of Right of First Refusal.** As defined in
- (cj) **Notice of Impending Shortage.** As defined in § 11.2.
- (ck) **Notice of Material Change.** As defined in § 4.2(c).
- (cl) **Notice of Reduction Amount.** As defined in § 4.3(b).
- (cm) **Notice of Renewal.** As defined in § 4.2(b).
- § 11.3(a). (cn) **Notice of Right to Exercise Right of First Refusal.** As defined in
- (co) **Notice of Waiver.** As defined in § 3.2(c)(vii)
- (cp) **Notice to Acquire.** As defined in § 3.2(c)(i).
- (cq) **Notice to Transfer.** As defined in § 3.2(c)(i).
- (cr) **Offering Party.** As defined in § 4.4(b).
- (cs) **PCC.** The Program Coordinating Committee established pursuant to the IID/MWD 1988 Agreement.
- (ct) **Price Redetermination Value.** As defined in § 5.3(b)(vi).
- (cu) **Primary Transfer Water.** The amount of Conserved Water transferred, starting with Agreement Year 1 and increasing by twenty thousand (20,000) AFY to and including the Stabilized Primary Quantity.
- (cv) **Projected Average Annual Transfers from Qualifying Transactions.** As defined in § 5.1(u).
- (cw) **Property Tax Rate Limit.** As defined in § 5.1(v).
- (cx) **Qualifying Criteria.** As defined in § 5.1(w).
- (cy) **Qualifying Transaction.** As defined in § 5.1(x).

(cz) **Reach Quantity**. The volume of Conserved Water wheeled through a specific Conveyance Path Reach taking into account actual Conveyance Losses for that Conveyance Path Reach.

(da) **Reach Wheeling Charge**. The charge for each specific Conveyance Path Reach determined by the sum of the Conveyance Path Capital Costs, Conveyance Path Replacement Costs, Conveyance Path Operation and Maintenance Costs and Conveyance Path Power Costs for that Reach.

(db) **Recycled Water Service Charges**. As defined in § 5.1(y).

(dc) **Reduction Amount**. As defined in § 4.3(a).

(dd) **Renewal Term**. As defined in § 4.1(b).

(de) **Replacement Water Rate**. As defined in § 5.1(z).

(df) **Request For A Price Redetermination**. As defined in § 5.3(c).

(dg) **Responding Party**. As defined in § 4.4(b).

(dh) **Right of First Refusal Cap**. As defined in § 4.4(a)(i).

(di) **Seasonal Storage Service Charges**. As defined in § 5.1(aa).

(dj) **Secretary**. The Secretary of the Department of the Interior of the United States, and duly appointed successors, representatives and others with delegated authority.

(dk) **Settling-Up Date**. As defined in § 6.1(c).

(dl) **Settling-Up Payment**. As defined in § 6.1(c).

(dm) **Shadow Period**. As defined in § 4.4(c).

(dn) **Shortage Contract**. As defined in § 11.3.

(do) **Shortage Premium**. As defined in § 5.1(ab).

(dp) **Shortage Premium Period**. As defined in § 5.1(ac).

(dq) **Shortage Premium Table**. As defined in § 5.1(ad).

(dr) **Stabilized Primary Quantity**. As defined in § 3.1.

(ds) **State Water Project**. The water rights and facilities acquired or constructed pursuant to the Central Valley Project Act, Water Code § 11100 *et seq.* and the State Water Resources Development Bond Act (Burns Porter Act), Water Code

§ 12930 et seq. The facilities include the Oroville and upstream reservoirs, an aqueduct system from the Sacramento-San Joaquin Delta to termini in the North and South San Francisco Bay area, the San Joaquin Valley, the Central Coast and Southern California; miscellaneous water conservation, flood control and drainage facilities; power generation, transmission and Davis-Grunsky act water development projects (Water Code § 12880 et seq.).

(dt) **Subsequent Environmental Mitigation Date.** The date after the Environmental Decision Date on which additional environmental mitigation is required as a result of post-Effective Date unanticipated environmental consequences.

(du) **Supplemental Agreement.** As defined in § 11.2(b).

(dv) **Supplemental Wheeling Charge.** The payment by the Authority to MWD as a joint IID/Authority contribution to any MWD off-stream storage program for Colorado River water. The amount of the Supplemental Wheeling Charge shall equal the Supplemental Wheeling Rate, multiplied by the quantity of any Flood Control Releases available for diversion by MWD that were not diverted by MWD into the Colorado River Aqueduct in that month because the Authority wheeled Conserved Water through the Colorado River Aqueduct in that month.

(dw) **Supplemental Wheeling Rate.** The component of the Actual Wheeling Rate for charges imposed by the MWD on the Authority for wheeling Conserved Water from Lake Havasu to the Conveyance Path Terminus when the monthly capacity of the Colorado River Aqueduct is less than the sum of:

(i) The quantity of Conserved Water, if any, the Authority wheels through the Colorado River Aqueduct in that month; plus

(ii) The quantity of water diverted by MWD from the Colorado River in that month under (A) its 4th priority entitlement and (B) pursuant to the IID/MWD 1988 Agreement; plus

(iii) The quantity of any Flood Control Releases available for diversion by MWD in that month.

(dx) **SWRCB.** California State Water Resources Control Board.

(dy) **Transaction.** As defined in § 5.1(ae).

(dz) **Treasury Rate.** The interest rate on six (6) month constant maturity U.S. Treasury securities, as announced in Federal Reserve Statistical Release H.15 (Selected Interest Rates). If the publication of Federal Reserve Statistical Release H.15 is discontinued, or if the Treasury Rate is altered in some material manner, including changing the name of the rate or the securities measured in the rate, the Parties must use their reasonable best efforts to agree on a substitute rate that reasonably captures the same factors, such as risk, duration, and maturity.

- (ea) **Treated Water Charges**. As defined in § 5.1(ag).
- (eb) **Undiverted Conserved Water**. The difference between one-twelfth (1/12) the Agreement Year quantity of Conserved Water to be transferred by the IID and the quantity actually diverted in any month by the Authority.
- (ec) **Untreated Full Service Water Rate**. As defined in § 5.1(ah).
- (ed) **Vintage**. As defined in § 5.1(ai).
- (ee) **Volume-Sensitive Charges**. As defined in § 5.1(aj).
- (ef) **Water Conservation**. As defined in § 1011(a) of the California Water Code, as in effect on the Execution Date.
- (eg) **Water Quality Terminus**. The location at Lake Skinner where the quality of water inflow to Lake Skinner is measured.
- (eh) **Water Quality Transaction**. As defined in § 3.2(e).

1.2 **Rules of Construction and Word Usage**. Unless the context clearly requires otherwise:

- (a) The Recitals to this Agreement are a part of this Agreement to the same extent as the Articles;
- (b) The Exhibits attached to this Agreement are incorporated by reference and are to be considered part of the terms of this Agreement;
- (c) The plural and singular numbers include the other;
- (d) The masculine, feminine, and neuter genders include the others;
- (e) "Shall," "will," "must," and "agrees" are each mandatory;
- (f) "May" is permissive;
- (g) "May not" is prohibitory;
- (h) "Or" is not exclusive;
- (i) "Includes" and "including" are not limiting; and
- (j) "Between" includes the ends of the identified range.

ARTICLE 2

BASIC PROVISION

Subject in all events to the terms and conditions of this Agreement:

- (a) The IID may undertake and agrees to contract with Landowners to undertake Water Conservation efforts in order to reduce the diversion (less return flows) of Colorado River water by the IID.
- (b) The IID agrees to transfer Conserved Water to the Authority.
- (c) The Authority agrees to pay the IID for the Conserved Water so transferred.
- (d) The IID and the Authority agree that at the termination of the Agreement neither the terms of the Agreement nor the conduct of the Parties in performance of the Agreement confers upon the Authority any legal or equitable right to the Conserved Water, other than by right of first refusal provided in Article 4 below.

ARTICLE 3

QUANTITY

3.1 **Primary Transfer.** The quantity of Conserved Water transferred during Agreement Year 1 shall be twenty thousand (20,000) AFY. The quantity transferred will increase by twenty thousand (20,000) AFY each year thereafter until the "Stabilized Primary Quantity" is reached. The "**Stabilized Primary Quantity**" is that quantity between one hundred thirty thousand (130,000) AFY and two hundred thousand (200,000) AFY, that the IID determines to make available, in its complete discretion. The IID must give notice to the Authority of the Stabilized Primary Quantity no later than the end of the sixth (6th) month following the satisfaction of the Contracting Landowner conditions of §§ 7.1(c)(ii) and 8.1(c)(ii). If the IID fails to give timely notice, the Stabilized Primary Quantity will be two hundred thousand (200,000) AFY. The IID may not change the quantity of the Stabilized Primary Quantity once the amount has been established.

3.2 **Discretionary Additional Transfers.** Subject to the provisions of this section, (i) if IID wishes to transfer "Additional Available Water," it must offer that Conserved Water first to the Authority, and (ii) if the Authority wishes to acquire additional water from a third party other than MWD, it must offer to purchase Conserved Water first from the IID, up to the "Additional Available Water" quantity.

- (a) **Additional Available Water.** "Additional Available Water" means that quantity of Conserved Water, if any, up to a maximum of one hundred thousand (100,000) AFY, that the IID determines, in its complete discretion, except as limited in this § 3.2, to make available under this Agreement. Once the IID has identified a quantity of Additional Available Water available to the Authority under this Agreement,

such quantity may not be reduced. The quantity of Additional Available Water, if any, is independent of the Stabilized Primary Quantity transferred under § 3.1. Additional Available Water does not include:

(i) Water, in the quantity specified in the following sentences, that the IID transfers to MWD or CVWD under the IID/MWD 1988 Agreement. The quantity of water excluded from Additional Available Water in the preceding sentence is that quantity of water being transferred to MWD or CVWD as of the Execution Date plus any increases resulting from PCC determinations (both terms on an annualized Calendar-Year basis); or

(ii) Water conserved from the All-American Canal or Coachella Canal.

(b) **Price.** The price for Additional Available Water will be the same price as for the Primary Transfer Water transferred under § 3.1 concurrently.

(c) **Procedure.** The transfer of Additional Available Water shall proceed as follows:

(i) Notice to Acquire; Notice to Transfer. On or after January 1 of Agreement Year 4, the Authority may give a notice of its desire to obtain Additional Available Water ("**Notice to Acquire**"), and the IID may give a notice of its desire to transfer Additional Available Water ("**Notice to Transfer**"). The Notice to Acquire and Notice to Transfer must contain the terms of the desired quantity, transfer start date, period over which the transfer would increase from the minimum to the maximum and any environmental, transportation, SWRCB approval, BOR approval or Landowner participation conditions.

(ii) Response to Notice; Meet and Confer. The Party not giving the Notice to Acquire or Notice to Transfer must either accept the terms and conditions contained in such Notice, respond with a counter-Notice containing alternative acceptable terms and conditions, or meet and confer with the Party giving the Notice in order to determine whether mutually acceptable terms and conditions can be negotiated. The Parties have six (6) months from the giving of the earliest Notice to Acquire or Notice to Transfer to reach an agreement on the terms and conditions for the transfer of Additional Available Water or the Notice will be deemed rejected.

(iii) Condition Removal. Should the Parties agree that the transfer of Additional Available Water may be conditioned on the satisfaction of environmental, transportation, SWRCB approval, BOR approval or Landowner participation conditions, the period for satisfaction of such conditions may not be longer than twenty-four (24) months from the date that the Parties reach agreement on the terms for transfer of the Additional Available Water. The Parties

agree to proceed with reasonable diligence and use reasonable best efforts to satisfy any conditions for which a Party has accepted responsibility.

(iv) **Start Date.** The first day that Additional Available Water may be transferred to the Authority is the later of:

(A) January 1 of Agreement Year 11; or

(B) Six (6) months after the satisfaction of the last remaining condition referenced in § 3.2(c)(iii) above.

(v) **Transfer Quantity Schedule.** The period over which the quantity of Additional Available Water increases from its minimum to its maximum quantity may be no shorter than two (2) years and no longer than ten (10) years.

(vi) **Term.** The term of transfer of Additional Available Water must end concurrently with the Initial Term and any Renewal Term.

(vii) **Waiver of Right to Acquire or Transfer.** The failure of the Parties to negotiate acceptable terms and conditions for the transfer of Additional Available Water shall entitle the Party sending a Notice to Acquire or Notice to Transfer to give a "**Notice of Waiver**" which results in both Parties relinquishing any further rights or obligations under § 3.2 with respect to Additional Available Water. If all of the agreed upon conditions for the transfer of Additional Available Water are not satisfied or waived, either Party shall be entitled to give a Notice of Waiver which results in both Parties relinquishing any further rights or obligations under § 3.2 with respect to Additional Available Water, provided the Party sending the Notice of Waiver proceeded with reasonable diligence and used reasonable best efforts to satisfy any condition for which it had accepted responsibility. Unless a Party sends a Notice of Waiver, the rights to Additional Available Water are unaffected and shall continue until the end of the Initial Term.

(d) **IID Carve-Out.** The IID has the right to carve-out from Additional Available Water water that it transfers to MWD or CVWD in connection with the execution of a contract with either of those entities ("**Adjunct Contract**"). Therefore, the amount of Additional Available Water potentially available to the Authority is up to one hundred thousand (100,000) AFY less the amount transferred to MWD or CVWD pursuant to an Adjunct Contract. This right to carve-out for MWD or CVWD additional Conserved Water is subject to the following restrictions:

(i) The right to execute an Adjunct Contract terminates at the end of Agreement Year 7.

(ii) The transfer of water under an Adjunct Contract may not reduce the quantity to which the Authority is already entitled, as either the Stabilized Primary Quantity or as Additional Available Water. That is, once the IID has specified a Stabilized Primary Quantity or quantity of Additional Available

Water available to the Authority, neither quantity may be reduced. Furthermore, a carve-out for MWD or CVWD may not in any way impact the wheeling of IID transferred Conserved Water by the Authority from Lake Havasu to the Conveyance Path Terminus.

(iii) The IID may not transfer any water to MWD under an Adjunct Contract until the wheeling conditions, §§ 7.1(e) and 8.1(e), have been satisfied or waived.

(iv) Any Adjunct Contract with MWD must either:

(A) Contain, or provide for the concurrent delivery of, a permanent waiver of all existing legal disputes related to the approval conditions under the Agreement, §§ 7.1(d) and 8.1(d), including disputes regarding waste, unreasonable use, forfeiture, equitable apportionment, legality of transfer and legality and sufficiency of verification method, or

(B) Require that the price per AF that MWD pays during any Agreement Year is greater than or equal to the price that the Authority pays during that same Agreement Year.

(v) Any Adjunct Contract with CVWD must contain CVWD's covenant that it may not transfer the water received, directly or indirectly (for example, by exchange), for use outside CVWD's jurisdictional boundaries.

(vi) Within five (5) days of the IID Board approval of an Adjunct Contract, the IID shall deliver to the Authority a copy of the Adjunct Contract and any other information necessary to demonstrate satisfaction of the Adjunct Contract restrictions of § 3.2(d)(i)-(v). The Authority shall have thirty (30) days from such notice to approve or file an objection with the Administrative Committee. Failure to timely file an objection shall be deemed approval. If a timely objection is filed, the Adjunct Contract shall not commence until the objection is finally resolved pursuant to the provisions in Article 17.

(e) **Authority Exclusions**. The Authority's obligation to first offer to purchase Conserved Water as Additional Available Water from the IID before acquiring water from a third party other than MWD does not apply to the following transactions ("**Water Quality Transactions**" and "**Drought Transactions**"):

(i) **Water Quality Transactions**. A Water Quality Transaction must satisfy all the following criteria:

(A) The Authority must take delivery of the Water Quality-transferred water at Lake Skinner;

(B) The Authority must not exchange the Water Quality-transferred water for receipt of any other water between Lake Skinner and the Conveyance Path Terminus;

(C) The total dissolved solids ("TDS") of the Water Quality-transferred water as measured at the Water Quality Terminus at the end of every Calendar Year quarter must be less than or equal to four hundred (400) parts per million ("ppm");

(D) The TDS of the Water Quality-transferred water at the Conveyance Path Terminus at the end of every Calendar Year quarter must be less than or equal to the TDS of the Conserved Water transferred by the IID to the Authority under this Agreement, as measured at Lake Havasu;

(E) The annual quantity of Water Quality-transferred water received by the Authority as measured at the Conveyance Path Terminus, when aggregated with all other Water Quality-transferred water from Water Quality Transactions, does not exceed the following schedule:

(1) Execution Date to Agreement Year 2
- twenty thousand (20,000) AFY

(2) Agreement Year 2 - forty thousand
(40,000) AFY

(3) Agreement Year 3 - sixty thousand
(60,000) AFY

(4) Agreement Year 4 - eighty thousand
(80,000) AFY

(5) Agreement Year 5 - one hundred thousand
(100,000) AFY

(6) Agreement Year 6 to end of Initial Term -
one hundred thousand (100,000) AFY; and

(F) The wheeling rate to be paid by the Authority must be no more than would be calculated utilizing the methodology of the Base Wheeling Rate until either the satisfaction of the wheeling conditions contained in §§ 7.1(e) and 8.1(e) of the Agreement or two (2) years from the Execution Date, whichever is earlier; and thereafter no more than would be calculated utilizing any lawful wheeling rate methodology.

(ii) **Drought Transactions.** Water acquired in a Drought Transaction must be under a contract that is:

(A) Executed after (1) a declaration by the Secretary of a shortage condition for the Lower Colorado River or (2) a monthly projection by the California Department of Water Resources of a Critical Year and which contract requires delivery of all contracted for water within two (2) years from execution; or

(B) Executed before (1) a declaration by the Secretary of a shortage condition for the Lower Colorado River or (2) a monthly projection by the California Department of Water Resources of a Critical Year but which contract provides for delivery of water only after and during a shortage condition on the Lower Colorado River or during a Critical Year; and

(C) Under either (A) or (B) above, the wheeling rate to be paid by the Authority must be no more than would be calculated utilizing the methodology of the Base Wheeling Rate until either the satisfaction of the wheeling conditions contained in §§ 7.1(e) and 8.1(e) of the Agreement or two (2) years from the Execution Date, whichever is earlier; and thereafter no more than would be calculated utilizing any lawful wheeling rate methodology.

(iii) Within five (5) days of the Authority Board approval of a contract for a Water Quality Transaction or a Drought Transaction, the Authority shall deliver to the IID a copy of the contract and any other information necessary to demonstrate satisfaction of the applicable restrictions of § 3.2(e)(i) or (ii). The IID shall have thirty (30) days from such notice to approve or file an objection, and unless the Water Quality or Drought Transaction is in response to an Event Constituting An Emergency, such objection shall be filed with the Administrative Committee. Failure to timely file an objection shall be deemed approval. If a timely objection is filed, the Water Quality Transaction or Drought Transaction shall not commence until the objection is finally resolved pursuant to the provisions of Article 17, if such Transaction is not in response to an Event Constituting An Emergency, or if such Transaction is enjoined from commencing under Article 16.

3.3 **Temporary Re-Transfer.** The Authority has a limited right to re-transfer Conserved Water transferred by the IID. This right is subject to the following terms and conditions:

(a) **No Effect on IID.** The re-transfer may take place only if the re-transfer will not injure the IID.

(b) **Mutual Aid.** The re-transfer may be done only to lend Mutual Aid.

(c) **Duration**. The term of the re-transfer may not exceed twelve (12) months, and there may be no consecutive or regularly recurring re-transfers. If, however, the Mutual Aid condition that justified the temporary re-transfer under § 3.3(b) above has a continuation duration of more than twelve (12) months, then the IID may not unreasonably withhold its consent to a re-transfer with a duration of up to twenty-four (24) months.

(d) **Short-Term Exchange**. If the Authority exchanges IID-transferred Conserved Water for MWD-delivered water with MWD or an MWD member-agency, and if the exchange obligation of each party must be and actually is fulfilled within a single Calendar Year, then that exchange is not a temporary re-transfer and is not subject to the limitations set forth above. The term of any exchange agreement is in the complete discretion of the Authority.

3.4 **Calendar-Year Limitation**. The Authority's right to transferred Conserved Water under this Agreement is not cumulative, and the Authority has no right to any such Conserved Water that it does not divert within the Agreement Year that it is transferred. Thus, if the Authority fails to divert all the Conserved Water to which it is entitled under this Agreement in any one Agreement Year, the amount to which the Authority is entitled (and the amount that the IID is obligated to transfer under this Agreement) in any other Agreement Year is unaffected.

ARTICLE 4

TERM AND RENEWAL

4.1 **Term**.

(a) **Initial Term**. The period from the Initial Transfer Date to forty-five (45) years after the Benchmark Date. If the Agreement is not renewed on the terms and conditions set forth in this Article, the Agreement terminates at the end of the Initial Term. If the Agreement is renewed, the terms and conditions of the Agreement other than § 4.2 remain in full force and effect.

(b) **Renewal Term**. The period from the expiration of the Initial Term until thirty (30) years after such expiration.

4.2 **Renewal**.

(a) **Option to Renew**. Subject to the Material Change provision in § 4.2(c) below, each Party has a unilateral option to renew the Agreement for the Renewal Term.

(b) **Timing of Option Exercise**. If the Authority wishes to renew the Agreement for the Renewal Term, the Authority must give the IID notice of its exercise of renewal option ("**Notice of Renewal**") during Agreement Year 33, 34, or 35. If the IID

wishes to renew the Agreement for the Renewal Term, the IID must give the Authority Notice of Renewal during Agreement Year 36, 37, or 38.

(c) **Notice of Material Change.** Irrespective of whether a Party has given, or still has the right to give, a Notice of Renewal, either Party may give notice to the other that the Agreement will not be renewed beyond the Initial Term as the result of a Material Change ("**Notice of Material Change**"). For the purposes of this § 4.2(c), "**Material Change**" means that the access to available conveyance facilities and the costs for transportation of the Conserved Water to the Conveyance Path Terminus during the Renewal Term are expected to be materially worse to the Party providing the Notice than those terms were during the Initial Term. A Party may give a Notice of Material Change even if it is the Party that has given, or still has the right to give, a Notice of Renewal. A Notice of Material Change is effective only if given between Agreement Years 35 and 40. The IID or the Authority may respond to a Notice of Material Change and preserve the Notice of Renewal by promptly notifying the other of its exercise of its rights to contribute the additional costs as provided in §§ 7.3 and 8.3 respectively.

4.3 **Reduction in Quantity During Renewal Term.**

(a) **Reduction Amount.** The IID may reduce the quantity of Conserved Water that it must transfer to the Authority, and for which the Authority must pay, by up to thirty four thousand (34,000) AFY ("**Reduction Amount**") less than the Stabilized Primary Quantity plus any Additional Available water being transferred. Subject to the terms of this § 4.3, this Reduction Amount goes into effect when the Renewal Term commences.

(b) **Notice.** In order to reduce its transfers to the Authority by the Reduction Amount, the IID must, during or before Agreement Year 40, give "**Notice of the Reduction Amount**" which Notice shall include the amount of the Reduction Amount and the IID's projection that existing or future municipal or industrial demands warrant the Reduction Amount.

(c) **Conditions.** The IID may reduce its transfers by the Reduction Amount only if:

(i) The IID/MWD 1988 Agreement has expired or terminated, or will expire or terminate by the date on which the Renewal Term commences;

(ii) The IID has not, as of the date on which the Renewal Term commences, transferred Conserved Water created under the IID/MWD 1988 Agreement for use outside of Imperial County; and

(iii) The Reduction Amount will not be used or transferred for use outside of Imperial County.

4.4 **Right of First Refusal.**

(a) **Analysis of Transfers During Agreement Year 63, Year 18 of the Renewal Term.** No later than January 31 following the conclusion of Agreement Year 63, Year 18 of the Renewal Term, the Parties must determine the quantities of water that, during Agreement Year 63:

(i) The IID is transferring to the Authority under the Agreement (the "**Right of First Refusal Cap**");

(ii) The IID is transferring to third parties, other than the Authority (the "**IID Safe-Harbor Quantity**"); and

(iii) The Authority is acquiring from MWD, projects and third parties, other than the IID under this Agreement (the "**Authority Safe-Harbor Quantity**").

(b) **Competing Proposed Transaction.** A proposed Transaction in which a Party makes a firm offer to, or enters into an agreement with, a third party to acquire (in the case of the Authority) or transfer (in the case of the IID) water, is referred to as a "**Competing Proposed Transaction.**" In order to be considered a Competing Proposed Transaction, the transaction contemplated by the firm offer or agreement must satisfy the Eligibility Criteria as defined in § 5.1(f), other than the satisfaction of § 5.1(f)(iv) regarding being a Noncontingent Transaction and § 5.1(f)(v) regarding the Reference Date. The Party contemplating the Competing Proposed Transaction is the "**Offering Party;**" the other Party is the "**Responding Party.**"

(c) **Right of First Refusal.** If, at any time after the commencement of Agreement Year 63 and before the end of the period from the expiration of the Renewal Term until ten (10) years thereafter (the "**Shadow Period**"), an Offering Party contemplates a Competing Proposed Transaction which would cause the IID to have total transfers or the Authority to have total acquisitions in excess of the applicable Safe-Harbor Quantity, then with respect to that Competing Proposed Transaction, the Responding Party has a right of first refusal. The Responding Party may compel the Offering Party to consummate the transfer of water with the Responding Party on the same terms and conditions set forth in the Competing Proposed Transaction.

(d) **Exercise of Right of First Refusal.**

(i) **Meet-and-Confer and Last Best Offer.** During the period from the commencement of Agreement Year 63 and the conclusion of Agreement Year 65, the IID and the Authority must meet and confer to see if they can agree to terms for a continuation of the Agreement beyond the expiration of the Renewal Term or agree to terms for a new, superseding agreement. Either Party may make an unlimited number of proposals for the continued transfer of some or all or more Conserved Water, and such proposals may be on terms identical to or wholly or

partly different from those set forth in this Agreement. The last proposal that a Party makes is that Party's "**Last Best Offer.**" Either Party may freely reject any such proposals. If the Parties agree to terms for the transfer of Conserved Water beyond the expiration of the Renewal Term, then the right of first refusal will be automatically canceled and voided. If the Parties do not agree to terms for the transfer of Conserved Water beyond the expiration of the Renewal Term, then for the duration of the Shadow Period, each Party will have a right of first refusal as to the other, in a quantity up to the Right of First Refusal Cap.

(ii) Notice of Competing Proposed Transaction. The Offering Party must give written notice of the Competing Proposed Transaction to the Responding Party immediately after the earlier of (A) the execution of the contract or term sheet for the Competing Proposed Transaction, and (B) the approval of the Competing Proposed Transaction by the Offering Party's Board. The notice must include a copy of the contract or firm offer, such other additional information as is necessary to confirm that the Competing Proposed Transaction satisfies the Eligibility Criteria, other than as to contractual contingencies, and a per AF valuation of the Competing Proposed Transaction and the Responding Party's Last Best Offer.

(iii) Response to Notice. The Responding Party may exercise its right of first refusal by giving notice of such exercise within ninety (90) days after the Offering Party gives notice of the Competing Proposed Transaction. Exercise of the right of first refusal results in a reduction in the Right of First Refusal Cap by the quantity of Conserved Water covered by the Competing Proposed Transaction, even if the Parties do not close the new Transaction because of the failure to satisfy a specified contractual contingency. If the Responding Party does not exercise its right within that ninety (90) day period, then the right of first refusal expires, but only as to that quantity of Conserved Water covered by the Competing Proposed Transaction. (For examples, see Exhibit G.) Thus, the exercise of a right of first refusal or the failure to exercise a right of first refusal results in a reduction to the Right of First Refusal Cap.

(iv) Premium/Discount If Competing Proposed Transaction is Inferior To Last Best Offer. If an Offering Party contemplating a Competing Proposed Transaction has given a notice of the Competing Proposed Transaction, and the terms of that Competing Proposed Transaction are inferior to the Offering Party compared to the terms contained in the Responding Party's Last Best Offer, then the Responding Party may compel the Offering Party to consummate a transfer of water on the same terms and conditions set forth in the Competing Proposed Transaction, other than as to the price for the transferred water. As to price, if the Authority is the Responding Party, then the price that the Authority must pay will be ten percent (10%) less than the price specified in the Competing Proposed Transaction. If the IID is the Responding Party, then the price that the Authority must pay will be ten percent (10%) more than the price specified in the Competing Proposed Transaction.

(v) Comparison of Last Best Offer and Competing Proposed Transaction. In order to compare the terms of the Last Best Offer and a Competing Proposed Transaction, and thus to determine whether a Competing Proposed Transaction is inferior to a Last Best Offer, the Parties must employ the methodology set forth in § 5.3(b) for determining the per AF value of Eligible Transactions and for adjusting for the value of certain Transaction characteristics like supply reliability, water quality and other factors used in the immediately preceding Price Redetermination process. If no Price Redetermination has yet occurred because of the absence of any of the conditions for commencing a Price Redetermination process identified in § 5.3(a), other than the absence of a request by either of the Parties, then no premium or discount under § 4.4(d)(iv) will be applicable.

ARTICLE 5

PRICING

5.1 Pricing Definitions.

(a) Annexation Charges. The levy by the MWD of a special tax upon taxable property or other charges imposed solely as a condition of an agency or territory being annexed into the MWD as authorized under §§ 351 and 372 of the MWD Act and § 33000 of the MWD Administrative Code, as in existence on the Execution Date or thereafter amended or superseded.

(b) **Applicable Discount Rate.**

Agreement Year	Discount Rate
1	.2500
2	.2389
3	.2278
4	.2167
5	.2056
6	.1944
7	.1833
8	.1722
9	.1611
10	.1500
11	.1350
12	.1200
13	.1050
14	.0900
15	.0750
16	.0625
17 and thereafter	.0500

(c) **Authority Shortage.** An Authority Shortage exists, other than one caused by an emergency as defined in California Water Code § 1811(b) as in effect on the Execution Date, for any period following the adoption of a resolution by the Authority Board containing a declaration of a Water Shortage Emergency (pursuant to Water Code § 350 as in effect on the Execution Date) and imposing mandatory water conservation measures or rationing of water deliveries on its member agencies, excluding such impositions on interruptible agricultural water.

(d) **Base Contract Price.** The Base Contract Price shall be determined by the following formula:

$$[\text{MWD Full Water Rate} - \text{Base Wheeling Rate}] \times [1 - \text{Applicable Discount Rate}] + 50\% \times [\text{Base Wheeling Rate} - \text{Actual Wheeling Rate}]$$

The formula is expressed as the "Base Contract Price equals [the MWD Full Water Rate minus the Base Wheeling Rate] multiplied by the difference between [one (1) minus the Applicable Discount Rate] plus fifty percent (50%) of the difference between [the Base Wheeling Rate minus the Actual Wheeling Rate]." Whether the Base Wheeling Rate is more than the Actual Wheeling Rate or the Actual Wheeling Rate is more than the Base Wheeling Rate will determine whether the difference is a positive or negative number and thus whether the Base Contract Price will increase or decrease.

(e) **California Water Market Scale Table.**

CALIFORNIA WATER MARKET SCALE

<i>Projected Average Annual Transfers from Qualifying Transactions</i>	<i>Weight of Price Redetermination Value</i>
0.24-0.35 MAF	50%
0.36-0.47 MAF	53%
0.48-0.59 MAF	60%
0.60-0.71 MAF	67%
0.72-0.83 MAF	73%
0.84-0.95 MAF	80%
0.96-1.07 MAF	87%
1.08-1.20 MAF	93%
> 1.20 MAF	100%

(f) **Eligibility Criteria.** Collectively, the following are all necessary Eligibility Criteria:

(i) **Information Availability.** In order for a Transaction to be an Eligible Transaction, the Parties must be able to obtain a complete copy of the underlying contract and other information about the Transaction, transferor and transferee sufficient to evaluate the satisfaction of other Eligibility Criteria.

(ii) **Voluntary Negotiated Transactions.** The Transaction must be the result of voluntary negotiations between a willing transferor and a willing transferee where neither party was compelled or coerced into agreeing to the Transaction or to any of the terms or conditions of the Transaction. If a voluntary Transaction has uniform terms and conditions with other Transactions not the result of independent, arms-length bargaining, then that Transaction and all other identical Transactions with a Reference Date in the same Calendar Year are to be

aggregated and counted as a single Transaction. See, for example, the illustration involving the 1991 Drought Water Bank contained within Exhibit E.

(iii) Geography. The water or water rights that are transferred by the Transaction must be capable of being used for domestic, municipal, industrial or agricultural use within the geographic territory defined as the Lower Colorado River Basin.

(iv) Noncontingent Transaction. All contingencies to the performance by both parties to the Transaction must have been removed before the start of the Price Redetermination.

(v) Reference Date. The date that the Transaction became a binding contract between the parties to the Transaction, which date shall be no more than ten (10) years prior to the Agreement Year of the start date of the Price Redetermination, unless the conditions identified in Exhibit E concerning lengthening the Reference Date Eligibility Criterion are satisfied, but in no event longer than fifteen (15) years, or with a Reference Date before the year 2000.

(vi) Transaction Term. A Transaction must have a minimum term for annual water transfers of five (5) years.

(vii) Minimum Quantity. A Transaction must involve: (A) an average annual transfer quantity of no less than five thousand (5,000) AFY for the term of the Transaction; (B) a cumulative transfer quantity over the term of the Transaction of no less than fifty thousand (50,000) AF, and (C), a frequency of annual water transfers over the term of the Transaction equal to or greater than seventy-five percent (75%) of the years of the term (the number of years water is transferred divided by the contract term, rounded to the nearest percent).

(viii) Feasibility. The IID must face no legal, technical or other barrier that would preclude it from participating in the Transaction as a transferor and realizing the full benefit to the transferor of the terms and conditions of the Transaction; or the Authority must face no legal, technical or other barrier that would preclude it from participating in the Transaction as a transferee and realizing the full benefit to the transferee of the terms and conditions of the Transaction.

(ix) Water Quality. Transactions involving water, the quality of which, when subjected to ordinary and customary treatment in the MWD or the Authority service areas, would fall within the controlling federal and state maximum contaminant levels for potable water.

(x) Excluded Transactions. Any Transaction involving a transfer under an Adjunct Contract with MWD or CVWD; any transfer under the IID/MWD 1988 Agreement; or any transfer of water conserved from the All-American Canal or the Coachella Canal.

- (g) **Eligible Transaction.** A Transaction that satisfies each of the Eligibility Criteria.
- (h) **Excluded Connection Maintenance Charges.** Any connection maintenance charge established by the MWD pursuant to MWD Administrative Code §§ 4401(b) and 4402, as in existence on the Execution Date or thereafter amended or superseded, that does not exceed two hundred dollars (\$200) per cubic feet per second ("cfs").
- (i) **Excluded Property Taxes.** MWD property or *ad valorem* taxes that fall below the Property Tax Rate Limit.
- (j) **Fundamental Change.** A substantial, fundamental and precipitous change in the nature of MWD's purpose or the extent of MWD's powers, territory, operations, functions, services or the like such that the MWD Full Water Rate is no longer reasonably relevant to the Base Contract Price formula.
- (k) **Fundamental Change Date.** The date on which a Fundamental Change is reported to the Administrative Committee, provided such report is either uncontested by the nonreporting Party or, if it becomes a Dispute, is finally resolved pursuant to Article 17; and if the Fundamental Change is confirmed pursuant to Article 17 as reported, then the Fundamental Change Date is the date of reporting.
- (l) **Interim Agricultural Water Service Charges.** Any rate or charge established by MWD pursuant to MWD Administrative Code §§ 4117 and 4401(a)(4), as in existence on the Execution Date or thereafter amended or superseded.
- (m) **Minimum Qualifying Transaction Threshold.** The minimum Projected Average Annual Transfers from Qualifying Transactions necessary to initiate a Price Redetermination, which quantity must be no less than two hundred forty thousand (240,000) AFY.
- (n) **MWD Billing Period.** The time period for an MWD charge as determined by reference to the MWD bill for such charge.
- (o) **MWD Full Water Rate.** The Untreated Full Service Water Rate plus the per AF valuation of any other Volume-Sensitive Charges plus any [Non-Volume Sensitive Charges divided by (the Four-Year Rolling Average of the volume of Authority purchases from the MWD plus the quantity of IID Conserved Water transferred to the Authority).] The per AF valuation of a Volume-Sensitive Charge is equal to the dollar amount that the Authority is billed divided by the volume of MWD water delivered to the Authority during the MWD Billing Period.
- (p) **"N" Year Rolling Average.** The average calculated by using the information available from the specified "N" number of most the recently completed Calendar Years.

(q) **New Agreement Price.** As defined in §5.3(b)(vii).

(r) **New Direct Property Charges.** Any MWD rate or charge that is not an Excluded Property Tax and is collected directly by MWD from a property owner or developer within the jurisdictional boundary of the Authority, provided however, that:

(i) These rates and charges are excluded from the calculation of the MWD Full Water Rate until the impact of the rates and charges would increase the MWD Full Water Rate by five percent (5%);

(ii) These rates and charges are included in the calculation of the MWD Full Water Rate to the extent that such rates and charges would increase the MWD Full Water Rate by more than five percent (5%) and up to fifteen percent (15%), but the increase up to five percent (5%) must first be deducted; and

(iii) If inclusion of these rates and charges increases the MWD Full Water Rate by more than fifteen percent (15%), then one-half (½) the increase above the fifteen percent (15%) level shall be included in the calculation of the MWD Full Water Rate, plus all of the increase provided for under (ii) above. Furthermore, if inclusion would increase the MWD Full Water Rate by twenty-five percent (25%) or more, then in such circumstance, during the Price Redetermination phase, the IID may elect to shift the weighting to one hundred percent (100%) reliance on Eligible Transactions and to recalculate the result of the immediately preceding Price Redetermination and any future Price Redeterminations.

(iv) One-time charges shall be amortized over a thirty (30) year period at the Authority's then existing cost of capital to determine the amount to be utilized in determining the impact on the MWD Full Water Rate.

(s) **Non-Volume-Sensitive Charges.** All MWD rates and charges billed to or through the Authority that do not vary by the volume of water delivered during the MWD Billing Period, except that Non-Volume-Sensitive Charges do not include any of the (i) Excluded Connection Maintenance Charges, (ii) Excluded Property Taxes and (iii) Annexation Charges or (iv) all of the New Direct Property Charges. The portion of the New Direct Property Charges includable in the Non-Volume-Sensitive Charges is specified in the definition of the New Direct Property Charges above.

(t) **Price Redetermination Value.** As defined in § 5.3(b)(vi).

(u) **Projected Average Annual Transfers from Qualifying Transactions.** The average annual volume of water projected to be transferred in Qualifying Transactions over the ten (10) years immediately subsequent to the initiation of the Price Redetermination to be calculated as the sum of all quantities scheduled to be delivered for that ten (10) year period divided by ten (10).

(v) **Property Tax Rate Limit.** That portion of an MWD property or *ad valorem* tax that falls below the following maximum levy:

(i) Voter-authorized general obligation bond debt incurred by MWD before the effective date of the California Constitution article XIII A, § 1, plus

(ii) Voter-authorized general obligation bond debt incurred by MWD pursuant to the voter-override provisions of the California Constitution, article XIII A, § 3; plus

(iii) That portion of MWD's payment obligation under its State Water Project contract for the payment by California of principal and interest on bonds issued pursuant to the California Water Resources Development Bond Act as of 1984 and used to finance the construction of facilities for the benefit of MWD.

(w) **Qualifying Criteria.** Collectively, the following are all necessary Qualifying Criteria:

(i) **Information Availability.** In order for a Transaction to be a Qualifying Transaction, the Parties must be able to obtain a complete copy of the underlying written contract and other information about the Transaction, transferor and transferee sufficient to evaluate the satisfaction of other Qualifying Criteria.

(ii) **Voluntary Negotiated Transactions.** The Transaction must be the result of voluntary negotiations between a willing transferor and a willing transferee where neither party was compelled or coerced into agreeing to the Transaction or to any of the terms or conditions of the Transaction. If a voluntary Transaction has uniform terms and conditions with other Transactions not the result of independent, arms-length bargaining, then that Transaction and all other identical Transactions with a Reference Date in the same Calendar Year are to be aggregated and counted as a single Transaction. See, for example, the illustration involving the 1991 Drought Water Bank contained within Exhibit E.

(iii) **Geography.** The transferor, transferee and the water or water rights that are transferred by the Transaction must all be within California, and the water must be capable of being used for domestic, municipal, industrial or agricultural purposes.

(iv) **Noncontingent Transaction.** All contingencies to the performance by both parties to the Transaction must have been removed before the start of the Price Redetermination.

(v) **Minimum Quantity.** A Transaction must involve an average annual transfer quantity of no less than five thousand (5,000) AFY for the term of the Transaction.

(vi) **Water Quality.** Transactions transferring water the quality of which, when subjected to ordinary and customary treatment in the MWD or the Authority service areas, would fall within the controlling federal and state maximum contaminant levels for potable water.

(vii) **Excluded Transactions.** Any transfer under this Agreement; any transfer under the IID/MWD 1988 Agreement; any transfer of water conserved from the All-American Canal or the Coachella Canal; or any Transaction which became a binding contract between the parties to the Transaction before the Execution Date.

(x) **Qualifying Transaction.** A Transaction that satisfies each of the Qualifying Criteria.

(y) **Recycled Water Service Charges.** Any rate or charge established by MWD pursuant to MWD Administrative Code §§ 4113 and 4401(a)(3), as in existence on the Execution Date or thereafter amended or superseded.

(z) **Replacement Water Rate.** The MWD Full Water Rate in effect on the Fundamental Change Date. The Replacement Water Rate shall change after the Fundamental Change Date as changes occur in the CPI, based on a determination of the relationship between changes in the CPI and changes in the MWD Full Water Rate for the period of time that is the shorter of (i) the ten (10) years immediately prior to the Fundamental Change Date, or (ii) the number of years between the Fundamental Change Date and the Execution Date. An illustration of the determination of the relationship between changes in the CPI and changes in the MWD Full Water Rate and the use of the Replacement Water Rate in the Base Contract Price formula is contained in Exhibit A.

(aa) **Seasonal Storage Service Charges.** Any rate or charge established by MWD pursuant to MWD Administrative Code §§ 4114 and 4401(a)(2), as in existence on the Execution Date or thereafter amended or superseded.

(ab) **Shortage Premium.** The additional price per AF the Authority is required to pay to the IID for all Conserved Water transferred to the Authority during the Shortage Premium Period, as measured by the volume of Conserved Water diverted by the Authority. The Shortage Premium is calculated by using the greater of:

(i) The rate calculated by selecting the premium percentage corresponding to the shortage percentage magnitude from the Shortage Premium Table, determined by reference to the shortage percentage finding in the Authority Shortage resolution, and multiplying the selected percentage by the otherwise applicable Base Contract Price; or

(ii) The rate calculated by multiplying the Base Contract Price by (A) twenty-five percent (25%) when there exists a declaration by the Secretary

of a shortage condition for the Lower Colorado River, or (B) five percent (5%) when there exists a Critical Year; or

(iii) The rate calculated by multiplying the Base Contract Price by thirty percent (30%) when there exists both (A) a declaration by the Secretary of a shortage condition for the Lower Colorado River, and (B) a Critical Year.

(ac) **Shortage Premium Period.** The Shortage Premium Period duration is the period of consecutive days during which any of the following exist:

- (i) An Authority Shortage;
- (ii) A shortage condition for the Lower Colorado River as declared by the Secretary; or
- (iii) A Critical Year.

(ad) **Shortage Premium Table.**

<i>Authority Shortage Percentage Magnitude</i>	<i>Premium</i>
0% to <5%	0%
5% to <10%	10%
10% to <15%	15%
15% to <20%	30%
20% to <25%	40%
25% to <30%	50%
≥ 30%	100%

(ae) **Transaction.** An agreement, as reflected in a written contract, for the transfer of water or water rights where the transferee's use of the transferred water or water rights will be at a location different from that where the transferor used or last used the water or water rights or produces the water.

(af) **Treated Water Charges.** Any rate or charge established by MWD pursuant to MWD Administrative Code §§ 4103 and 4401, as in existence on the Execution Date or thereafter amended or superseded.

(ag) **Untreated Full Service Water Rate.** The MWD water rate established for untreated water pursuant to the MWD Administrative Code §§ 4104, 4111 and 4401(a)(1), as in existence on the Execution Date or thereafter amended or superseded.

(ah) **Vintage**. The difference in years between the year of the Price Redetermination and the year the Transaction became a binding contract between the Parties.

(ai) **Volume-Sensitive Charges**. An MWD rate or charge that is billed to the Authority and which billed amount for the MWD Billing Period is affected by the quantity of water MWD delivers to the Authority during the MWD Billing Period, other than an Interim Agricultural Water Service Charge, a Recycled Water Service Charge, a Seasonal Storage Service Charge, or a Treated Water Charge.

5.2 **Initial Pricing Phase**.

(a) **Formula**. The price per AF for Conserved Water transferred during the Initial Pricing Phase shall be determined by the following formula:

$$\text{Price} = \text{Base Contract Price} + \text{Shortage Premium}$$

The formula is expressed as the "Price equals the Base Contract Price plus the Shortage Premium."

(b) **Changes to Base Contract Price**. The Base Contract Price per AF is recalculated and adjusted whenever one of the addend components of the pricing formula changes. Any rate change is effective for the purpose of calculating the payment due from the Authority on the first day of the next whole month.

(c) **Duration of Initial Pricing Phase**. The Initial Pricing Phase commences on the Initial Transfer Date and remains in effect until the later of (i) the end of Agreement Year 10; or (ii) the satisfaction of the conditions to the commencement of a Price Redetermination.

(d) **Base Contract Price and Shortage Premium Information Sources**.

(i) **MWD Full Water Rate**. The most recent relevant MWD Board resolution(s) and supporting staff memorandum accompanying such resolution(s) containing the information necessary to calculate the MWD Full Water Rate, or the Best Available MWD Information.

(ii) **Base and Actual Wheeling Rate**. The most recent MWD cost accounting records as of June 30 each year as compiled by the Office of the Controller and the bills sent by MWD to the Authority for payment, or the Best Available MWD Information.

(iii) **Shortage Premium**. The most recent relevant Authority Board resolution(s) and supporting staff memorandum accompanying such resolution(s) containing the declaration of the Authority Shortage, percentage

shortage magnitude or cessation of the Authority Shortage; the declaration by the Secretary of shortage, normal or surplus condition for the Lower Colorado River; and the report of any Critical Year(s) and the report of any Dry, Below Normal, Normal, Above Normal or Wet Year(s).

5.3 **Price Redetermination Phase.**

(a) **Conditions to Commencement of a Price Redetermination.** A Price Redetermination may be undertaken only if all five (5) of the following conditions are satisfied:

- (i) The request of either Party for a Price Redetermination;
- (ii) The end of Agreement Year 10;
- (iii) The existence of the Minimum Qualifying Transaction Threshold;
- (iv) The existence of ten (10) Eligible Transactions; and
- (v) Any previous Price Redetermination is either
 - (A) At least ten (10) years prior; or
 - (B) Based on fifteen (15) or fewer Eligible Transactions and thereafter, twenty (20) or more Eligible Transactions become available.

(b) **Price Redetermination.** The formulaic process by which the price per AF for Conserved Water under the Agreement may be changed as a result of the consideration of Eligible Transactions and the volume of the Projected Average Annual Transfers from Qualifying Transactions. The methodology, explanation and illustration for a Price Redetermination is set forth on Exhibit E. A Price Redetermination proceeds through the following steps:

- (i) Gather and analyze information and data necessary to determine whether the conditions to commencement of a Price Redetermination are all satisfied.
- (ii) Calculate the net contract value based on the per AF present value of the payments for the quantity of transferred water for each Eligible Transaction as of the Reference Date for each Eligible Transaction, less the location adjustment.
- (iii) Evaluate the Eligible Transactions for the purpose of determining whether there is a statistically valid relationship between the per AF value of the Eligible Transaction and the following Transaction characteristics:

- (A) The Reference Date of the Eligible Transaction;
- (B) The supply reliability of the transferred water to the transferee under the Eligible Transaction;
- (C) The water quality of the transferred water as received by the transferee, including TDS and other quality parameters requested by a Party at the time of the Price Redetermination; and
- (D) Other Transaction or transferred water characteristics requested by a Party at the time of the Price Redetermination.

(iv) If a statistically valid relation is confirmed, determine the market value adjustment for the Transaction characteristics.

(v) Evaluate the Agreement characteristics for market value adjustments utilizing the same methodology as used for the Eligible Transactions, and determine an Agreement valuation band to be utilized in Price Redetermination.

(vi) Calculate the "**Price Redetermination Value**" by (A) utilization of the Agreement valuation band; and (B) the per AF value for the water to be transferred over the remaining term of the Agreement as determined by the same methodology used to determine the per AF value of each Eligible Transaction. If the per AF Agreement value falls within the calculated Agreement valuation band, then no price adjustment to the Agreement is warranted. If the per AF Agreement value falls below the Agreement valuation band, the Price Redetermination Value becomes the lower limit of the Agreement valuation band. If the per AF Agreement value falls above the Agreement valuation band, the Price Redetermination Value becomes the upper limit of the Agreement valuation band.

(vii) After the determination of the per AF Price Redetermination Value, the Agreement price per AF for Conserved Water is adjusted to reflect the California Water Market Scale. The resulting price becomes the New Agreement Price ("**New Agreement Price**") per AF to be paid by the Authority until the next Price Redetermination, subject to changes in the Base Contract Price and escalations of the Price Redetermination Values included in the New Agreement Price based on changes in the CPI. The adjustment formula is as follows:

$\text{New Agreement Price} = \omega \times \text{price based on Price Redetermination Value} + (1-\omega) \times \text{Agreement price per AF before Price Redetermination}$

where " ω " equals weight of Price Redetermination based on the California Water Market Scale Table. The formula is expressed as: "the New

Agreement Price equals [the Weight of Price Redetermination from the California Water Market Scale Table multiplied by the Price Redetermination Value] plus [one minus the Weight of Price Redetermination multiplied by the Agreement price per AF before Price Redetermination.]"

An example of the calculation of the resulting New Agreement Price per AF using an assumed per AF Price Redetermination Value and an adjustment based on the California Water Market Scale Table is included in Exhibit E.

(c) **Request For A Price Redetermination.** A Party may request a Price Redetermination by sending a "**Request For A Price Redetermination.**" The Request For A Price Redetermination must be accompanied by information the Party reasonably believes satisfies the conditions to commencement identified in § 5.3(a) above, and any other information the requesting Party wishes to have considered. The non-requesting Party shall have ninety (90) days to furnish information it wishes to have considered. The Price Redetermination will be deemed to have commenced as of the date of the Request For A Price Redetermination.

(d) **Price Redetermination Information Sources.** Information sources include copies of the Eligible and Qualifying Transaction contracts, trustworthy information about historical performance and contract implementation, the water use needs of the transferor, the characteristics of the water sources, the circumstances of the Eligible and Qualifying Transaction negotiations, and the legal, technical and other feasibility parameters.

(e) **Registration of Transactions.** By the end of each Calendar Year following the year of the Effective Date, each Party shall submit in writing to the Administrative Committee a list of Transactions that the Party believes would satisfy the requirements for being considered either a Qualifying Transaction or an Eligible Transaction. The Advisor to the Administrative Committee shall gather the information available on each of the listed Transactions, report quarterly to the Administrative Committee the status of the information gathering process, and as soon as reasonably practicable calculate and report the per AF valuation for each Transaction that may reasonably be considered an Eligible Transaction. In addition, the Advisor shall report on the status of the Eligibility Criteria for each of the Transactions that may reasonably be considered an Eligible Transaction. Furthermore, the Advisor shall, as soon as reasonably practicable, calculate and report on the status of the Qualifying Criteria for each Transaction that may reasonably be considered a Qualifying Transaction.

5.4 **Effect of Fundamental Change.** Should a Fundamental Change occur, then as of the Fundamental Change Date, the Replacement Water Rate shall be substituted for all purposes for the MWD Full Water Rate within the Base Contract Price formula.

ARTICLE 6

PAYMENT AND TRANSFER

6.1 Schedule for Payments.

(a) **Payment Schedule.** Invoices will be sent monthly and shall not be mailed later than the tenth (10th) Business Day of the month. Each such invoice shall indicate the date of mailing and date on which the payment thereunder becomes due, the per AF charges, and the total amount due and owing. Payment of the amount shown on any such invoice shall be due on the tenth (10th) Business Day of the month following the mailing of such invoice ("**Due Date**").

(b) **Amount of Monthly Payments.**

(i) The amount for each monthly payment during an Agreement Year is the quantity of Conserved Water to be transferred during that Agreement Year times the applicable price as of the commencement of that Agreement Year divided by twelve (12).

(ii) The Authority may at its discretion defer payment if it diverts Conserved Water transferred by the IID in the following monthly quantities. If eighty percent (80%) or more of one-twelfth (1/12) of the Agreement Year quantity of the Conserved Water is diverted in a month, then the Due Date for full payment will be the regularly scheduled payment date and no deferral is permitted; if forty percent (40%) or more but less than eighty percent (80%) of one-twelfth (1/12th) of the Agreement Year quantity of the Conserved Water is diverted in a month, then the Due Date for payment on the Undiverted Conserved Water shall be on the tenth (10th) Business Day of the second (2nd) month following the month of invoice mailing; and if less than forty percent (40%) of one-twelfth (1/12th) of the annual transfer quantity of the Conserved Water is diverted in a month, then the Due Date for payment on the Undiverted Conserved Water shall be on the tenth (10th) Business Day of the third month following the month of invoice mailing.

(c) **Initial Semi-Annual and Final Annual Settling-Up.** Although the payment schedule set forth in § 6.1(a) and (b) above is based on a fixed price and assumes that Conserved Water is transferred in twelve (12) equal quantities, the actual amount due under this Agreement, as specified in Article 5, must take into account price changes throughout an Agreement Year. As a result, the sum of the twelve (12) monthly payments actually made may be more, or less, than the actual amount due. Therefore, on a semi-annual and year end basis, as of the tenth (10th) Business Day of August and February respectively (the "**Settling-Up Dates**"), after the conclusion of the January to June and January to December invoicing periods, the Parties must calculate the amount of any under- or overpayment by the Authority. This under- or overpayment is referred to as the "**Settling-Up Payment.**" If the Authority has paid more than is required under the

Agreement, the Authority is entitled to a refund from the IID; the Settling-Up Payment represents the amount that the IID must pay the Authority. If the Authority has paid less than is required, the Settling-Up Payment represents the additional amount that the Authority must pay the IID. No deferral of the Settling-Up Payment is permitted.

(d) **Adjustment Amounts.** The adjusted amount due during a calendar month (or, during the first month of Agreement Year 1, a fractional month ending on the end of a calendar month) is the product of the applicable price during that month and the quantity of Conserved Water which the Authority diverts during that month. To the extent that the quantity of Conserved Water with respect to which the Authority diverts is less than the quantity for which it must pay during an Agreement Year under this Agreement (see § 6.5 below), the paid-for-but-undiverted Conserved Water is deemed to have been transferred to the Authority during the last calendar month of an Agreement Year. The adjusted semi-annual amount for the initial semi-annual period is the sum of the adjusted amounts for the months of January to June. The adjusted annual amount of the full annual period is the sum of the adjusted amounts for the months of January to December, less the adjusted semi-annual amount for the initial semi-annual period.

(e) **"As-If" Payments.** The goal of the Settling-Up Payment is to provide the same economic costs and benefits to the Parties "as if" each monthly payment had been made in the amount actually due under the Agreement, based on the prices that actually apply during the month and the quantities of Conserved Water transferred (or deemed to be transferred) during the month. For the initial semi-annual period (January to June) and the full annual period (January to December), the difference between the adjusted semi-annual amount, the adjusted annual amount and the amount actually paid must be determined. This difference (whether under- or overpayment) is then increased by the simple interest that accrues from the monthly Due Date to the Settling-Up Date, with a daily interest rate based on the Treasury Rate (taking the sum of the daily closing rates during the period interest is being paid and dividing it by the sum of Business Days that interest is being paid). Exhibit I to this Agreement contains an example of how the Settling-Up Payment is calculated.

(f) **Mechanics.** Within ten (10) Business Days after the end of the semi-annual periods, or as soon as possible thereafter, the IID will give to the Authority notice of the IID's calculation of the Settling-Up Payment. Within ten (10) Business Days after the Authority receives that notice, or as soon as possible thereafter, the Authority will advise the IID whether it agrees with that calculation. If the Parties agree, then the Settling-Up Payment must be made on the Settling-Up Date.

(g) **Disagreement over the Settling-Up Payment.**

(i) **Agreement as to Over- or Underpayment.** If the Parties agree that there has been an overpayment, or that there has been an underpayment (that is, agree which Party must pay the other), but disagree as to the amount, then the amount that must be paid initially on the Settling-Up Date is the average of the

two numbers offered by the Parties. After the disagreement over the Settling-Up Payment has been resolved, a final reconciling payment may be required.

(ii) Disagreement as to Over- or Underpayment. If the parties disagree as to whether there has been an over- or underpayment (that is, do not agree as to which Party must pay the other), then no Settling-Up Payment will be required until the disagreement has been resolved.

(iii) Reconciling Payment After the Settling-Up Date. After the disagreement has been resolved, any reconciling payment must include interest on the reconciling amount from the Settling-Up Date through the date the reconciling payment is made, with simple interest calculated at the Treasury Rate, taking the sum of the daily closing rate during the period interest is being paid and dividing it by the sum of Business Days that interest is being paid.

6.2 **Method of Payment.** Every payment to the IID or to the Authority required under this Agreement must be made in lawful money of the United States of America, to the order of the IID or the Authority, and paid by wire transfer. The initial wire transfer instructions are as follows:

Imperial Irrigation District
01883-80154
Reference, if any
Bank of America
San Francisco
121000358

San Diego County Water Authority
415 9417138
Reference, if any
Wells Fargo Bank
San Diego
121000248

The IID and the Authority may change these wire transfer instructions by giving a notice in accordance with § 18.6 below.

6.3 **Late Payments.** Payment of the amount required shall be delinquent if not received by the IID before the close of crediting activity on the Due Date. In the event that the Authority is delinquent in the payment of any amount required, the Authority shall pay an additional charge ("**Late Payment Charge**") equal to two percent (2%) of the delinquent payment for each month or portion thereof that such payment remains delinquent, provided however, that if the total period of delinquency does not exceed five (5) Business Days, the additional charge shall be equal to one percent (1%) of the delinquent payment.

6.4 **Transfer Commencement.** The transfer of Conserved Water shall commence on the Initial Transfer Date.

6.5 **Transfer Mechanism and Location.** The IID effects a transfer of Conserved Water under this Agreement by reducing its annual diversion (less return flows) from the Colorado River at Imperial Dam by an amount equal to the Conserved Water to be transferred. When the IID effects a transfer in that manner, the IID has satisfied its obligation to transfer such Conserved Water. The Authority accepts responsibility for the transferred Conserved Water at Imperial Dam. The Authority has no duty to divert any or all of the Conserved Water. The payments by the Authority to the IID under this Agreement are for the transfer of the Conserved Water, whether or not the Authority actually diverts that Conserved Water. The Authority bears the sole risk and responsibility of transporting the Conserved Water to the Conveyance Path Terminus, including any disruption or cost resulting from MWD conduct contrary to the provision of the contract or other arrangement which satisfied the Wheeling conditions of §§ 7.1(e) and 8.1(e).

6.6 **Authority's Scheduling Discretion.** The Authority accepts the transfer of Conserved Water beginning on January 1 of each Agreement Year. The Authority has the complete discretion within an Agreement Year on the scheduling of its diversions from the point of diversion to the Conveyance Path Terminus.

ARTICLE 7

CONDITIONS TO AUTHORITY'S OBLIGATIONS

7.1 **Satisfaction of Conditions to the Authority's Obligations.** The Authority's obligations to pay for the transfer of Conserved Water as contemplated by this Agreement is subject to the satisfaction of the following conditions for the Authority's benefit on or before the dates specified below. The Authority agrees to proceed with reasonable diligence and use its reasonable best efforts to satisfy those conditions for which it has responsibility.

(a) **Performance, Representations, and Warranties by the IID.**
The IID has duly performed in all material respects each and every applicable covenant and agreement that the IID is to perform under this Agreement, and the IID's representations and warranties set out in § 10.2 below remain true and correct in all material respects as of the date on which all other conditions in this § 7.1 have been satisfied or waived.

(b) **Environmental Obligations.**

(i) **Completion of Review.** Within five (5) years after the Execution Date, the Authority (A) has completed all environmental review and assessment required pursuant to CEQA and NEPA, as described in Article 9, and has certified the completion of the CEQA review process, (B) has determined to proceed with implementation of the activities described in this Agreement, as it may be amended to include project alternatives and/or mitigation measures which

the Authority considers appropriate or which are legally required by any other state or federal agency with discretionary authority over the project, and (C) the cost, as reasonably estimated by the Authority, of all environmental mitigation measures for which the Authority is responsible as described in § 7.1(b)(ii), as determined during the environmental review process and as of the Environmental Decision Date, does not exceed the Authority Environmental Cost Ceiling.

(ii) Responsibility for Mitigation Measures. The Authority shall be responsible for implementing, at its cost, all environmental mitigation measures adopted as part of the environmental review process in order to mitigate the impacts of the "project" (A) on resources within San Diego County, (B) on the Colorado River between Lake Havasu and Imperial Dam, and (C) caused by the transportation of Conserved Water to the Authority.

(iii) After the Effective Date. If, after the Effective Date, unanticipated environmental consequences result in additional mitigation costs, and those costs exceed, as of the Subsequent Environmental Mitigation Date, the difference between two million dollars (\$2,000,000) (Effective-Date Dollars) and the Authority's mitigation costs for mitigation identified as of the Effective Date pursuant to § 7.1(b)(i) above, then the Authority may at that time terminate this Agreement. (See, for example, Exhibit H.)

(c) Contracting Landowners. The IID has (i) within eighteen (18) months of the Execution Date, entered into subscriptions with Landowners, expressly conditioned upon the IID's compliance with environmental laws pursuant to Article 9 of this Agreement, expressing Landowners' interest in undertaking Water Conservation efforts, and (ii) no later than one hundred twenty (120) days after satisfaction of the conditions described in §§ 7.1(b)(i)(A) and (B) and 8.1(b)(i)(A) and (B), the IID has entered into contracts with the Landowners that call for, or are expected to yield when the Water Conservation efforts have been fully implemented, at least one hundred thirty thousand (130,000) AFY of Conserved Water, which contracts may remain subject to satisfaction of all conditions set forth in Articles 7 and 8.

(d) Approvals.

(i) SWRCB. Within five (5) years of the Execution Date, the SWRCB has entered a Final Order that approves the IID's transfer of Conserved Water to the Authority under this Agreement and which is based on the following findings:

(A) California law, including §§ 1011, 1012 and 1013 of the California Water Code as in effect on the Execution Date, applies to and governs the IID's transfer of Conserved Water to the Authority and IID's Senior Water Rights are unaffected by IID's transfer of Conserved Water to the Authority;

(B) The Conserved Water transferred by the IID to the Authority under the Agreement retains the same priority as if the water had been diverted by and used within the IID; and

(C) The quantity of Conserved Water transferred in each Agreement Year will be verified by the SWRCB confirming that: (1) the IID is enforcing the contractual duties and obligations of the Contracting Landowners to undertake Water Conservation efforts; (2) the IID has undertaken Water Conservation efforts, if applicable; and (3) the IID's diversions at Imperial Dam (less return flows) have been reduced in an amount equal to the quantity of Conserved Water transferred for each Agreement Year.

To the extent that the SWRCB imposes costs on the Parties for its review and approval of the IID's transfer of Conserved Water to the Authority under this Agreement, the IID and the Authority agree to share such costs equally, except that: SWRCB-imposed costs relating to the SWRCB's role in environmental review with respect to environmental mitigation shall be allocated based on the division of environmental mitigation responsibility identified in §§ 7.1(b)(ii) and 8.1(b)(ii); and any SWRCB-imposed costs relating to the SWRCB's role in reviewing IID's reasonable and beneficial use of water shall be borne solely by the IID.

(ii) BOR. Within six (6) years of the Execution Date, the Secretary has approved the IID's transfer of Conserved Water to the Authority under this Agreement by executing a Review and Approval Agreement substantially in the form set forth as Exhibit K.

To the extent that the BOR imposes costs on the Parties for its review and approval of the IID's transfer of Conserved Water to the Authority under this Agreement, the IID and the Authority agree to share such costs equally, except that: BOR-imposed costs relating to the BOR's role in environmental review with respect to environmental mitigation shall be allocated based on the division of environmental mitigation responsibility identified in §§ 7.1(b)(ii) and 8.1(b)(ii); and any BOR-imposed costs relating to any BOR role in reviewing IID's reasonable and beneficial uses of water shall be borne solely by the IID.

(iii) Litigation. Within six (6) years of the Execution Date, any litigation challenge that would result in a prohibition for either Party to perform under the Agreement or that would result in a judgment or finding relating to any of the specific findings sought from the SWRCB or the BOR has been finally resolved with a judgment or findings consistent with all of the terms and conditions of this Agreement.

(e) Wheeling. Within two (2) years of the Execution Date, the Authority has obtained from MWD or otherwise by contract or other arrangements,

satisfactory to the Authority in its complete discretion, the ability to wheel the Conserved Water to the Conveyance Path Terminus on the following terms and conditions:

(i) Actual Wheeling Rate Methodology. The Actual Wheeling Rate will be determined by a methodology consistent with the definition of the Base Wheeling Rate under this Agreement.

(ii) Payments. The Authority is only required to pay to the MWD an Actual Wheeling Rate, exclusive of any Supplemental Wheeling Charge, that does not exceed the Base Wheeling Rate, and the Supplemental Wheeling Rate does not exceed sixty dollars (\$60) per AF.

(iii) Conveyance Path Requirements. The Conveyance Path must encompass and be limited to the following Conveyance Path Reaches:

(A) From Whitsett Intake to San Jacinto Tunnel;

(B) Through Casa Loma Siphon Barrel No. 2;

(C) Casa Loma Canal from Siphon Barrel No. 2 to headworks of San Diego Canal;

(D) San Diego Canal to Lake Skinner;

(E) Outlet works of Lake Skinner to the Conveyance Path Terminus.

(iv) Quantity Requirements. MWD makes available to the Authority at the Conveyance Path Terminus the same quantity of Colorado River water that the Authority makes available to MWD at Lake Havasu, less Conveyance Losses.

(v) Maximum Conveyance Loss. The Conveyance Losses deducted by MWD for wheeling from Lake Havasu to the Conveyance Path Terminus shall be equal to or less than one and one-half percent (1½%) of the Conserved Water volume diverted at Lake Havasu.

(vi) Term of Wheeling Access. The initial term for access begins no later than the Initial Transfer Date and ends no earlier than the expiration of the Initial Term.

7.2 **Costs of Satisfying Conditions**. Other than with respect to the Authority's obligations for environmental mitigation, spelled out in § 7.1(b), payment of SWRCB or BOR expenses spelled out in § 7.1(d)(i) and (ii), and without regard to the Authority's reasonable-best-efforts obligation set forth in § 7.1, the amount that the Authority should spend in an effort to satisfy these conditions is committed wholly to the Authority's complete discretion.

7.3 **Contribution to Satisfaction of Conditions.** With respect to the environmental mitigation and wheeling conditions above and in § 4.2(c), the IID may (but is not in any way compelled to) contribute the additional costs, in excess of the specified caps, such that the net economic effect to the Authority is the same as if the condition had been satisfied directly. (See examples and methodology description in Exhibit J.) In that event, the condition is deemed satisfied, and the Authority may not terminate the Agreement on the basis that the condition has not been satisfied. The IID's right applies both before and after the Effective Date.

7.4 **Written Waiver of Conditions.** The Parties agree that the Authority may waive in writing any one or more of the foregoing conditions, provided however, that neither Party shall waive compliance with CEQA or NEPA or other requirements under applicable laws. A written waiver of a condition must be delivered in accordance with the notice provision of § 18.6 below. As to any condition to the obligation of both Parties (i.e., as set forth in both Article 7 and Article 8), a waiver of that condition is effective only if made by both Parties.

7.5 **Extension by Agreement.** The Parties may agree to extend the date by which any condition must be satisfied or waived.

7.6 **Consequence of Failure of Conditions.** If the conditions in this Article are not timely satisfied or waived, then this Agreement will be void, and all rights granted by this Agreement will be terminated and forfeited.

ARTICLE 8

CONDITIONS TO IID'S OBLIGATIONS

8.1 **Satisfaction of Conditions to the IID's Obligations.** The IID's obligations to undertake Water Conservation efforts and transfer Conserved Water as contemplated by this Agreement is subject to the satisfaction of the following conditions for the IID's benefit on or before the dates specified below. The IID agrees to proceed with reasonable diligence and use its reasonable best efforts to satisfy those conditions for which it has responsibility.

(a) **Performance, Representations, and Warranties by the Authority.** The Authority has duly performed in all material respects each and every applicable covenant and agreement that the Authority is to perform under this Agreement, and the Authority's representation and warranties set out in § 10.1 below remain true and correct in all material respects as of the date on which all other conditions in this § 8.1 have been satisfied or waived.

(b) **Environmental Obligations.**

(i) **Completion of Review.** Within five (5) years after the Execution Date, the IID (A) has completed all environmental review and assessment required pursuant to CEQA and NEPA, as described in Article 9, and has certified the completion of the CEQA review process, (B) has determined

to proceed with implementation of the activities described in this Agreement, as it may be amended to include project alternatives and/or mitigation measures which the IID considers appropriate or which are legally required by any other state or federal agency with discretionary authority over the project, and (C) the cost, as reasonably estimated by the IID of all environmental mitigation measures for which the IID is responsible as described in § 8.1(b)(ii), including any financing costs the IID incurs in borrowing money to fund mitigation programs, as determined during the environmental review process and as of the Environmental Decision Date, will not exceed the IID Environmental Cost Ceiling.

(ii) Responsibility for Mitigation Measures. The IID shall be responsible for implementing, at its cost, all environmental mitigation measures adopted as part of the environmental review process in order to mitigate the impacts of the "project" (A) on resources within Imperial County, exclusive of the Colorado River between Imperial Dam and the northern county border, and (B) on the Salton Sea.

(iii) After the Effective Date. If, after the Effective Date, initial mitigation costs or, as of a Subsequent Environmental Mitigation Date, unanticipated environmental consequences result in additional mitigation costs, and those costs exceed the difference between thirty million dollars (\$30,000,000) (in Effective-Date Dollars) and the IID's mitigation costs for mitigation identified as of the Effective Date pursuant to § 8.1(b)(i) above, then the IID may at that time terminate the Agreement. (See, for example, Exhibit H.)

(c) Contracting Landowners. The IID has (i) within eighteen (18) months of the Execution Date, entered into subscriptions with Landowners, expressly conditioned upon the IID's compliance with environmental laws pursuant to Article 9 of this Agreement, expressing Landowners' interest in undertaking Water Conservation efforts, and (ii) no later than one hundred twenty (120) days after satisfaction of the conditions described in §§ 7.1(b)(i)(A) and (B) and 8.1(b)(i)(A) and (B), the IID has entered into contracts with the Landowners that call for, or are expected to yield when the Water Conservation efforts have been fully implemented, at least one hundred thirty thousand (130,000) AFY of Conserved Water, which contracts may remain subject to satisfaction of all conditions set forth in Articles 7 and 8.

(d) Approvals.

(i) SWRCB. Within five (5) years of the Execution Date, the SWRCB has entered a Final Order that approves the IID's transfer of Conserved Water to the Authority under this Agreement and which is based on the following findings:

(A) California law, including §§ 1011, 1012 and 1013 of the California Water Code as in effect on the Execution Date, applies to and governs the IID's transfer of Conserved Water to the Authority and

IID's Senior Water Rights are unaffected by IID's transfer of Conserved Water to the Authority.

(B) The Conserved Water transferred by the IID to the Authority under the Agreement retains the same priority as if the water had been diverted by and used within the IID.

(C) The transfer of Conserved Water by the IID to the Authority under the Agreement is in furtherance of SWRCB Decision 1600, SWRCB Water Rights Order 88-20, article X, § 2 of the California Constitution, and §§ 100 and 109 of the California Water Code as in effect on the Execution Date.

(D) The transfer of Conserved Water by the IID to the Authority under the Agreement establishes the reasonable and beneficial use of water by the IID;

(E) The quantity of Conserved Water transferred in each Agreement Year will be verified by the SWRCB confirming that: (1) the IID is enforcing the contractual duties and obligations of the Contracting Landowners to undertake Water Conservation efforts; (2) the IID has undertaken Water Conservation efforts, if applicable; and (3) the IID's diversions at Imperial Dam (less return flows) have been reduced in an amount equal to the quantity of Conserved Water transferred for each Agreement Year;

(F) The IID's reduced diversions at Imperial Dam (less return flows) during an Agreement Year will be measured by subtracting from three million one hundred thousand (3,100,000) AFY the sum of [actual diversions (less return flows) of the IID during the Agreement Year under its priority 3 water right plus the amount of water transferred to the MWD under the IID/MWD 1988 Agreement] and disregarding the actual diversions (less return flows) of the IID during the Agreement Year, if any, under its priority 6 or 7 priority water right; and

(G) To assist the administration of diversions on the Colorado River and insulate junior right holders from any possible impact during the term of the Agreement, the IID will forbear under its priority 3 water right from diverting (less return flows) in excess of three million one hundred thousand (3,100,000) AFY and from diverting (less return flows) in excess of ninety percent (90%) of the water available under its priority 6 and 7 water right.

To the extent that the SWRCB imposes costs on the Parties for its review and approval of the IID's transfer of Conserved Water to the Authority under this Agreement, the IID and the Authority agree to share such costs equally,

except that: SWRCB-imposed costs relating the SWRCB's role in environmental review with respect to environmental mitigation shall be allocated based on the division of environmental mitigation responsibility identified in §§ 7.1(b)(ii) and 8.1(b)(ii); and any SWRCB-imposed costs relating to the SWRCB role in reviewing IID's reasonable and beneficial use of water shall be borne solely by the IID.

(ii) BOR. Within six (6) years of the Execution Date, the Secretary has approved the IID's transfer of Conserved Water to the Authority under this Agreement by executing a Review and Approval Agreement substantially in the form set forth as Exhibit K.

To the extent that the BOR imposes costs on the Parties for its review and approval of the IID's transfer of Conserved Water to the Authority under this Agreement, the IID and the Authority agree to share such costs equally; except that: BOR-imposed costs relating to the BOR's role in environmental review with respect to environmental mitigation shall be allocated based on the division of environmental mitigation responsibility identified in §§ 7.1(b)(ii) and 8.1(b)(ii); and any BOR-imposed costs relating to any BOR role in reviewing IID's reasonable and beneficial uses of water shall be borne solely by the IID.

(iii) Litigation. Within six (6) years of the Execution Date, any litigation challenge that would result in a prohibition for either Party to perform under the Agreement or that would result in a judgment or finding relating to any of the specific findings sought from the SWRCB or the BOR has been finally resolved with a judgment or findings consistent with all of the terms of this Agreement.

(e) Wheeling. Within two (2) years of the Execution Date, the Authority has obtained from MWD or otherwise by contract or other arrangements, satisfactory to the IID in its complete discretion, the ability to wheel the Conserved Water to the Conveyance Path Terminus on the following terms and conditions:

(i) Actual Wheeling Rate Methodology. The Actual Wheeling Rate will be determined by a methodology consistent with the definition of the Base Wheeling Rate under this Agreement.

(ii) Payments. The Authority is only required to pay to the MWD an Actual Wheeling Rate, exclusive of any Supplemental Wheeling Charge, that does not exceed the Base Wheeling Rate, and the Supplemental Wheeling Rate does not exceed sixty dollars (\$60) per AF.

(iii) Conveyance Path Requirements. The Conveyance Path must encompass and be limited to the following Conveyance Path Reaches:

(A) From Whitsett Intake to San Jacinto Tunnel;

- (B) Through Casa Loma Siphon Barrel No. 2;
- (C) Casa Loma Canal from Siphon Barrel No. 2 to headworks of San Diego Canal;
- (D) San Diego Canal to Lake Skinner;
- (E) Outlet works of Lake Skinner to the Conveyance Path Terminus.

(iv) Quantity Requirements. MWD makes available to the Authority at the Conveyance Path Terminus the same quantity of Colorado River water that the Authority makes available to MWD at Lake Havasu, less Conveyance Losses.

(v) Maximum Conveyance Loss. The Conveyance Losses deducted by MWD for wheeling from Lake Havasu to the Conveyance Path Terminus shall be equal to or less than one and one-half percent (1½ %) of the Conserved Water volume diverted at Lake Havasu.

(vi) Term of Wheeling Access. The initial term for access begins no later than the Initial Transfer Date and ends no earlier than the expiration of the Initial Term.

8.2 **Costs of Satisfying Conditions**. Other than with respect to the IID's obligations for environmental mitigation, spelled out in § 8.1(b) above, payment of SWRCB or BOR expenses spelled out in § 8.1(d)(i) and (ii), and without regard to the IID's reasonable-best-efforts obligation set forth in § 8.1, the amount that the IID should spend in an effort to satisfy these conditions is committed wholly to the IID's complete discretion.

8.3 **Contribution to Satisfaction of Conditions**. With respect to the environmental mitigation and the wheeling condition above and in § 4.2(c), the Authority may (but is not in any way compelled to) contribute the additional costs, in excess of the specified caps, such that the net economic effect to the IID is the same as if the condition had been satisfied directly. (See examples and methodology description in Exhibit J.) In that event, the condition is deemed satisfied, and the IID may not terminate the Agreement on the basis that the condition has not been satisfied. The Authority's right applies both before and after the Effective Date.

8.4 **Waiver of Conditions**. The Parties agree that the IID may waive in writing any one or more of such conditions; provided however, that neither Party shall waive compliance with CEQA or NEPA or other requirements under applicable law. A written waiver of a condition must be delivered in accordance with the notice provision of § 18.6 below. As to any condition to the obligation of both Parties (i.e., is set forth in both Article 7 and Article 8), a waiver of that condition is effective only if made by both Parties.

8.5 **Extension by Agreement**. The Parties may agree to extend the date by which any condition must be satisfied or waived.

8.6 **Consequence of Failure of Conditions.** If the conditions in this Article are not timely satisfied or waived, then this Agreement will be void, and all rights granted by this Agreement will be terminated and forfeited.

ARTICLE 9

COMPLIANCE WITH ENVIRONMENTAL LAWS

9.1 **Compliance With CEQA and NEPA.**

(a) **Environmental Assessment.** In executing this Agreement, the Parties recognize and acknowledge that no commitment can be made to carry out any "project" within the meaning of CEQA or NEPA unless and until the environmental review and assessment required by CEQA and NEPA has been completed. To the extent the activities contemplated by this Agreement, or any portion thereof, constitute a "project" within the meaning of CEQA or NEPA, approval and implementation of such activities are expressly contingent upon completion of the environmental review and assessment required by CEQA or NEPA.

(b) **Definition of "Project."** This Agreement shall serve as an initial definition of the "project" which the Parties will submit to review pursuant to CEQA. Execution of this Agreement, therefore, constitutes only a preliminary decision which is necessary to produce a legally adequate environmental assessment. Execution of this Agreement is not intended to commit either the IID or the Authority to undertake the project without compliance with CEQA and NEPA or to commit the Parties to a course of action which would result in approval of the project. Only after completion of the environmental review process, and the Parties' full review and consideration of the environmental information, will the Parties decide what action, if any, should be taken. For purposes of CEQA review, the project shall include the Water Conservation efforts to be carried out by the IID, if any, and the Contracting Landowners, and the transfer of Conserved Water from the IID to the Authority, as contemplated and described by this Agreement. In addition, for purposes of NEPA review, the project shall include (i) any discretionary action to approve or execute any contract or other document which involves major federal action within the meaning of NEPA, or (ii) any activities covered by the issuance of any permit or entitlement by a federal agency or which involves major federal action within the meaning of NEPA.

(c) **Responsibilities of Agencies.** The Parties shall cooperate with each other, in good faith, and provide staff and other resources, as needed, to conduct a thorough and legally sufficient environmental assessment of the project. The Parties hereby designate the IID as the lead agency for purposes of compliance with CEQA, recognizing that under NEPA the federal agency with principal approval authority will be the federal lead agency. The Authority shall act as a responsible agency for purposes of compliance with CEQA with respect to those aspects of the project over which the Authority has review and approval authority. The IID shall consult with the Authority and the Authority shall cooperate with the IID in connection with the preparation and review

of the environmental documentation in order to ensure compliance with CEQA and NEPA. Unless the IID as lead agency determines that the project is exempt under the provisions of CEQA, the IID shall conduct the initial study required by CEQA to determine whether the project may have a significant effect on the environment. If the IID determines that an environmental impact report ("EIR") under CEQA and an environmental impact statement ("EIS") under NEPA are required, it is the intent of the Parties that, to the extent authorized by the federal lead agency, a joint EIR/EIS shall be prepared. Nothing in this § 9.1 is intended to preclude issuance of a Negative Declaration (including a Mitigated Negative Declaration) under CEQA, a finding of no significant impact ("FONSI") under NEPA, or application of an exemption according to the provisions of CEQA or NEPA if the IID, as lead agency, determines after consultation with the Authority, as responsible agency, that any of these actions are appropriate based upon its review of the project.

(d) **Alternatives and Mitigation Measures.** As required by CEQA and NEPA, any EIR, EIS or joint EIR/EIS prepared for the project shall include those analyses required by law, including identification and meaningful evaluation of a range of reasonable alternatives to the project which could feasibly attain the basic objectives of the project and mitigation measures which would lessen any significant adverse effects of the project, and shall also include evaluation of a no project alternative.

(e) **Discretion of the IID.** Prior to final approval or implementation of the project, the IID and the Authority shall consider the environmental documentation prepared pursuant to CEQA and NEPA. As to any identified significant adverse impacts that can be reduced to a level less than significant through the adoption of feasible alternatives and/or mitigation measures, or in the case of significant adverse impacts that cannot be reduced to a level less than significant, the IID shall have complete discretion, subject to the requirements of CEQA and NEPA, whether to adopt such alternatives and/or mitigation measures, or to approve the project notwithstanding one or more significant environmental impacts together with a statement of overriding considerations, as the case may be. If the IID determines not to adopt such alternatives or mitigation measures, or decides not to issue a statement of overriding considerations, the IID may terminate this Agreement and shall not be obligated to undertake Water Conservation efforts, contract with Contracting Landowners to undertake Water Conservation efforts or transfer Conserved Water as contemplated by this Agreement. An alternative or mitigation measure shall not be deemed by the IID to be infeasible for economic reasons if the cost of the alternative or mitigation measure, when considered cumulatively with the cost of other alternatives or mitigation measures and which are the responsibility of the IID under this Agreement, does not exceed the IID Environmental Cost Ceiling.

(f) **Discretion of the Authority.** As to any identified significant adverse impacts attributable to those aspects of the project which are components of the transportation of the Conserved Water, the Authority shall have the discretion to make the final determination as to what alternatives or mitigation measures will be adopted, notwithstanding the Authority's general position as a responsible agency, and notwithstanding that the IID will retain its designation as lead agency. It is the intent of

the Parties that, subject to the requirements of CEQA, the Authority shall have the same discretion as may be exercised by the IID under § 9.1(e) with respect to incorporation of alternatives and mitigation measures into the project that are within the scope of the duties and obligations of the Authority under this Agreement. If the Authority determines not to adopt alternatives or mitigation measures to reduce impacts to levels less than significant, or decides not to issue a statement of overriding considerations, the Authority may terminate this Agreement and shall not be obligated to pay for the transfer of Conserved Water as contemplated by this Agreement. An alternative or mitigation measure shall not be deemed by the Authority to be infeasible for economic reasons if the cost of the alternative or mitigation measure, when considered cumulatively with the cost of other alternatives or mitigation measures and which are the responsibility of the Authority under this Agreement, does not exceed the Authority Environmental Cost Ceiling.

(g) **Additional Procedures.** Consistent with the provisions of this Agreement and with CEQA/NEPA requirements, the Parties shall, in good faith, establish additional and further procedures for implementing and conducting an environmental review of the project contemplated by this Agreement.

9.2 **Compliance With Endangered Species Act and Other Applicable Laws.** The Parties shall take all steps necessary to assess whether the activities described in this Agreement may adversely impact threatened or endangered species, critical habitat or other environmental resources regulated pursuant to the federal Endangered Species Act, the California Endangered Species Act and other applicable state and federal laws relating to the protection of environmental resources (collectively, "Resource Laws"). To the extent required to implement the activities described in this Agreement in compliance with all Resource Laws, and as a condition to implementing such activities, the Parties shall jointly undertake consultation with the U.S. Fish & Wildlife Service ("USFWS") and process all permits, approvals and authorizations from USFWS, the California Department of Fish & Game and other resource agencies.

ARTICLE 10

REPRESENTATIONS AND WARRANTIES

10.1 **The Authority's Representations and Warranties.**

(a) **Due Authority/Approval.** Subject only to any approvals required under Article 7 of this Agreement and compliance with environmental laws pursuant to Article 9 of this Agreement: (i) the Authority has all legal power and authority to enter into this Agreement and to accept the transfer of the Conserved Water on the terms set forth in this Agreement; and (ii) the execution and delivery of this Agreement and the Authority's performance of its obligations under the Agreement have been duly authorized by all necessary actions of the Authority, and no other act or proceeding by the Authority is necessary to authorize such execution, delivery, or performance.

(b) **Signatories.** The persons executing this Agreement on behalf of the Authority have full power and authority to bind the Authority to the terms of this Agreement. In addition, the persons signing this Agreement on the Authority's behalf personally warrant and represent that they have such power and authority. Furthermore, the persons signing this Agreement on the Authority's behalf personally warrant and represent they have reviewed the Agreement, understand its terms and conditions and have been advised by counsel regarding the same.

(c) **Enforceability.** Subject only to any approvals required under Article 7 of this Agreement and compliance with environmental laws pursuant to Article 9 of this Agreement, this Agreement constitutes the valid and binding agreement of the Authority, enforceable against the Authority in accordance with the terms of the Agreement.

(d) **No Conflict.** The execution and implementation of the Agreement do not violate or trigger default under any law or other agreement to which the Authority is subject.

(e) **No Pending or Threatened Disputes.** Except as disclosed on Schedule 10.1(e) attached to this Agreement, there are no actions, suits, legal or administrative proceedings, or governmental investigations pending or, to the Authority's knowledge, threatened against or affecting the Authority relating to the performance contemplated by this Agreement, including the IID's Water Conservation efforts, the IID's transfer of Conserved Water to the Authority, and the Authority's payment for such Conserved Water.

(f) **Notice of Developments.** The Authority agrees to give prompt notice to the IID if the Authority discovers that any of its own representations and warranties were untrue when made or determines that any of its own representations and warranties will be untrue as of the Effective Date. No such notice will be deemed to amend any schedule delivered.

10.2 **The IID's Representation and Warranties.**

(a) **Due Authority and Approval.** Subject only to any approvals required under Article 8 of this Agreement and compliance with environmental laws pursuant to Article 9 of this Agreement: (i) the IID has all legal power and authority to enter into this Agreement and to transfer the Conserved Water on the terms set forth in this Agreement, and (ii) the execution and delivery of this Agreement and the IID's performance of its obligations under the Agreement have been duly authorized by all necessary actions of the IID, and no other act or proceeding by the IID is necessary to authorize such execution, delivery, or performance.

(b) **Signatories.** The persons executing this Agreement on behalf of the IID have full power and authority to bind the IID to the terms of this Agreement. In addition, the persons signing this Agreement on the IID's behalf personally warrant and

represent that they have such power and authority. Furthermore, the persons signing this Agreement on the IID's behalf personally warrant and represent that they have reviewed this Agreement, understand its terms and conditions, and have been advised by counsel regarding the same.

(c) **Enforceability.** Subject only to any approvals required under Article 8 of this Agreement and compliance with environmental laws pursuant to Article 9 of this Agreement, this Agreement constitutes the valid and binding agreement of the IID, enforceable against the IID in accordance with the terms of the Agreement.

(d) **No Conflicts.** The execution and implementation of the Agreement do not violate or trigger default under any law or other agreement to which the IID is subject.

(e) **No Pending or Threatened Disputes.** Except as disclosed on Schedule 10.2(e) attached to this Agreement, there are no actions, suits, legal or administrative proceedings, or governmental investigations pending or, to the IID's knowledge, threatened against or affecting the IID relating to the performance contemplated by this Agreement, including the IID's Water Conservation efforts, the IID's transfer of Conserved Water to the Authority, and the Authority's payment for such Conserved Water.

(f) **Notice of Developments.** The IID agrees to give prompt notice to the Authority if the IID discovers that any of its own representations and warranties were untrue when made or determines that any of its own representations and warranties will be untrue as of the Effective Date. No such notice will be deemed to amend any schedule delivered.

ARTICLE 11

REDUCTIONS IN THE TRANSFER OF CONSERVED WATER AS A RESULT OF SHORTAGE CONDITIONS ON THE COLORADO RIVER

In the event that the Secretary declares a shortage condition on the Lower Colorado River, and such shortage condition is of sufficient magnitude that the Secretary requires a reduction in diversions (less return flows) by the IID under its priority 3 right, then the IID shall be entitled to reduce its transfer of Conserved Water to the Authority without liability in the manner set forth below, and the Authority shall be entitled to reduce its payment to the IID in a corresponding amount.

11.1 **Pro Rata Reduction.** The IID and the Authority will share pro rata in the reduction in the IID's allowed diversions (less return flows) under priority 3 from the Colorado River. The IID's delivery to the Authority will be reduced by the Authority's pro rata share, calculated as: "[the IID delivery obligation to the Authority under the Agreement in Colorado River normal flow year] divided by [the IID's priority 3 right] multiplied by [the reduction in

water available to the IID under its priority 3 right]." For example, if the IID were obligated to transfer to the Authority two hundred thousand (200,000) AFY in a normal flow year, the IID's priority 3 right is at three million one hundred thousand (3,100,000) AFY; and Colorado River shortage causes IID's priority 3 right to be cut back by three hundred thousand (300,000) AFY; then the formula for the Authority's pro rata share and the amount the Authority will be reduced is equal to $(200,000 \div 3,100,000) \times 300,000 = 19,355$ AFY.

11.2 **Impending Shortage and Supplemental Agreement.** Within forty-five (45) days of delivery by the other Party of a "**Notice of Impending Shortage,**" the Parties shall conduct a meet-and-confer session for the purpose of negotiating a mutually acceptable "Supplemental Agreement" (as defined below) for the transfer by the IID of supplemental Conserved Water to the Authority.

(a) The Notice of Impending Shortage may be sent when:

(i) The unregulated inflow into Lake Powell is forecasted by the BOR to be less than eight million eight hundred thousand (8,800,000) AF for the next twelve (12) months for the period April to March. Unregulated flow and Lake Mead storage shall be determined each year between April 1 and April 15 based on April 1 seasonal runoff forecasts by the BOR in cooperation with the National Weather Service; and

(ii) The usable storage in Lake Mead is less than fifteen million (15,000,000) AF as of the date of the forecast of the unregulated inflow into Lake Powell.

(b) The "**Supplemental Agreement**" shall contain the terms and provisions under which the IID will produce and transfer Conserved Water to the Authority for the period between the date on which the Secretary declares a Colorado River shortage condition and the date on which the Secretary next declares a normal or surplus condition.

(c) If a Supplemental Agreement is negotiated and executed by the IID and the Authority, but (a) the Secretary declares a normal or surplus condition without a shortage condition having been declared, or (b) the Secretary declares a normal or surplus condition after a shortage condition had been declared but the shortage magnitude never caused a reduction in the IID's right to make priority 3 diversions (less return flows), then the Supplemental Agreement shall be void and of no force or effect.

11.3 **Right of First Refusal.** If a Supplemental Agreement has not been reached within sixty (60) days of delivery of the Notice of Impending Shortage, then the Authority shall have a right of first refusal for any contract for transfer of Conserved Water by the IID and a third party that is entered into after the delivery of the Notice of Impending Shortage and which contract provides for the delivery of Conserved Water to commence within eighteen (18) months (a "**Shortage Contract**"). The Authority's right of first refusal shall continue until the Secretary declares that the Colorado River is in a normal or surplus flow condition, even if the

Authority does not exercise its right of first refusal each time such right is exercisable with respect to successive Shortage Contracts.

(a) Within five (5) days of the IID Board approval of a Shortage Contract, the IID shall deliver to the Authority a "**Notice of Right to Exercise Right of First Refusal**" along with a copy of the Shortage Contract.

(b) Within forty-five (45) days of the IID's delivery of a Notice of Right to Exercise Right of First Refusal, the Authority shall exercise its right of first refusal by delivering to the IID a "**Notice of Exercise of Right of First Refusal**," along with evidence of the Authority's Board approval, or shall expressly waive in writing its opportunity to accept that particular Shortage Contract. Failure by the Authority to respond in writing to the Notice of Right to Exercise of Right of First Refusal within forty-five (45) days shall be deemed a waiver of the Authority's right to accept the particular Shortage Contract, and thereafter the IID shall be free to go forward with the Shortage Contract with the third party.

(c) The Authority's exercise of its right of first refusal shall obligate the Authority to perform under any Shortage Contract for the entire contractual term of the Shortage Contract and according to all of its terms.

11.4 **Cover Water.**

(a) **Reimbursement Conditions.** The Authority may mitigate its pro rata reduction by contracting with a third party ("**Cover Contract**") to provide a replacement supply of water exclusive of any reduction of Additional Available Water ("**Cover Water**"). (Any reduction shall be pro rated between Primary Transfer Water and Additional Available Water based on the ratio of Primary Transfer Water to Additional Available Water being transferred.) The IID will reimburse the Authority an amount as set forth below for the cost of Cover Water provided that all of the following conditions are satisfied:

(i) Neither a Supplemental Agreement nor the exercise of a right of first refusal on a Shortage Contract has provided the Authority with a quantity of water equal to or greater than the pro rata reduction of the Primary Transfer Water;

(ii) A Notice of Waiver has been sent by either Party; and

(iii) The percentage magnitude of the Authority Shortage is greater than or equal to thirty percent (30%).

(b) **Notice.** Within five (5) days of the Authority's Board approval of a Cover Contract, the Authority shall deliver to the IID a copy of the Cover Contract.

(c) **Reimbursement Amount.** The IID shall reimburse the Authority for fifty percent (50%) of the difference between the cost per AF of the Cover Water and the

water being transferred to the Authority by the IID under the Agreement, with such obligation to extend only to the actual amount of water equal to the Authority's pro rata reduction in the Primary Transfer Water under this Agreement, and not to any pro rata reduction in the amount of Additional Available Water being transferred to the Authority. However, under no circumstances shall the IID's annual reimbursement obligation exceed one hundred dollars (\$100) per AF multiplied by fifteen percent (15%) of the Primary Transfer Water that would have been transferred but for the declared shortage condition of the Colorado River. The determination of the cost of the Cover Water shall be made in the same manner as the determination of the cost of water under an Eligible Transaction in a Price Redetermination .

(d) Reimbursement Termination. The IID's reimbursement obligation shall terminate upon the Secretary's declaration that the Colorado River is in a normal or surplus flow condition.

ARTICLE 12

OTHER RISKS

12.1 An adverse determination to the IID, if not pursued or supported by the Authority, restricting the IID from diverting and using more than 3,100,000 AFY under its priority 3 appropriative right after the Effective Date based on theories of equitable apportionment, forfeiture, abandonment or other theory related to the IID's use, shall not reduce the quantity of Conserved Water that the IID is obligated to transfer to the Authority under this Agreement.

12.2 The consent of the IID to a restriction on its right to divert and use more than 3,100,000 AFY under its priority 3 appropriative right after the Effective Date shall not reduce the quantity of Conserved Water that the IID is obligated to transfer to the Authority under this Agreement.

12.3 The consent of the IID to, or an adverse determination against the IID, if not pursued or supported by the Authority, after the Effective Date finding that the IID is no longer reasonably and beneficially using all of its water shall not reduce the quantity of Conserved Water that the IID is obligated to transfer to the Authority under this Agreement.

12.4 Except as a result of breach by Contracting Landowners, an adverse determination after the Effective Date that the amount of Conserved Water available for transfer by the IID to the Authority is less than the amount originally approved by the SWRCB and BOR shall modify the Agreement by reducing the IID's transfer of Conserved Water obligation to the newly-determined reduced amount and by reducing the Authority's payment to the IID to correspond to the newly-determined reduced amount.

12.5 The risk of an unexpected event disrupting the IID's ability to generate or transfer Conserved Water or an unexpected event disrupting the Authority's ability to receive Conserved Water such as a natural disaster, act of war or like emergency, shall be borne by the

Parties as follows. An extended drought, even of unexpected magnitude, is not an unexpected disrupting event.

(a) The IID shall be required, at its own expense, to take whatever steps are necessary to cure or solve the unexpected disruption to its ability to generate and transfer Conserved Water and shall provide the Authority as soon as reasonably possible with any makeup water necessary to replace any Conserved Water lost as a result of the unexpected disruption. The Authority may also withhold payments otherwise due until the makeup water is generated and transferred.

(b) The Authority shall be required, at its own expense, to take whatever steps are necessary to cure or solve the unexpected disruption in its ability to receive Conserved Water and during such disruption, shall not be relieved of its payment obligations to the IID.

(c) The Parties agree, to the extent practicable and without shifting the risks as set forth in this Article 12, to actively cooperate and use their reasonable best efforts to mitigate the effects of any such unexpected disruption event, including actively participating in a joint request to the BOR for an emergency storage right in Lake Mead or Lake Havasu for the Conserved Water.

(d) The Parties agree that during the period of the uncured, unexpected disruption event under § 12.5(b), the Authority shall be relieved of the Temporary Re-Transfer restrictions of § 3.3.

ARTICLE 13

EMINENT DOMAIN/TAKINGS

13.1 A lawful taking by an empowered governmental entity of some or all of the IID's priority 3 water rights shall entitle the IID to retain all compensation paid by the taking governmental entity; provided, however, that if the taking prevents the IID from transferring the full quantity of Conserved Water to the Authority under this Agreement, the Authority will share in any compensation paid to the extent the taking reduces the IID's transfer of Conserved Water. If the taking does not prevent the IID from transferring the full quantity of Conserved Water under this Agreement, then the taking shall not reduce the quantity of Conserved Water that the IID is obligated to transfer under this Agreement.

13.2 A lawful taking by an empowered governmental entity of some or all of the Authority's right to receive Conserved Water under this Agreement shall entitle the Authority to retain all compensation paid by the taking governmental entity.

ARTICLE 14

MISCELLANEOUS

14.1 **IID Retention of Water Rights; No "Property" Rights in Water Rights Created Hereunder.** The Parties agree that the Agreement does not in any way transfer, assign, encumber, or grant the Authority any ownership interest in or control over any of the IID Senior Water Rights. The Authority covenants and agrees not to assert any such interest in or control over any of the IID Senior Water Rights. Furthermore, upon the termination of the Agreement, neither the terms of the Agreement or the conduct of the Parties in performance of the Agreement shall be construed to enhance or diminish the rights of either Party as such rights existed at the Execution Date, including, without limitation rights arising from the application of principles of reliance, estoppel, intervening public use, domestic or municipal priority, domestic or municipal shortage or emergency, or equitable apportionment.

14.2 **Contracts with the Landowners.** The IID solely shall contract with the Contracting Landowners and shall be solely responsible for enforcing the terms of such contracts. The IID shall bear the sole responsibility and consequences of a breach by any Contracting Landowner. The Authority shall not be a third party beneficiary to any of the contracts between the Contracting Landowners and the IID, and the Authority shall not have or acquire any rights by virtue of those contracts. The IID covenants and agrees that following will not be a permitted Water Conservation effort under its contracts with its Contracting Landowners.

ARTICLE 15

DEFAULT

15.1 **Events of Default by the Authority.** Each of the following constitutes an "Event of Default" by the Authority under this Agreement:

(a) **Payment.** The Authority fails to pay any amount by the Due Date. If the Authority fails to pay any payment on the Due Date, that delinquent payment will bear a Late Payment Charge as set forth in § 6.3 until paid in full.

(b) **Other Promises.** The Authority fails to perform or observe any term, covenant, or undertaking in this Agreement that it is to perform or observe, and such default continues for forty-five (45) days from a Notice of Default being sent in the manner provided in § 18.6.

(c) **Warranties and Representations.** Any warranty, representation, or other statement made by or on behalf of the Authority and contained (i) in this Agreement or (ii) in any other document furnished in compliance with or in reference to this Agreement is on the date made, or later proves to be, false, misleading, or untrue in any material respect.

15.2 **Events of Default by the IID.** Each of the following constitutes an Event of Default by the IID under this Agreement.

(a) **Transfer.** The IID fails to transfer Conserved Water in the quantities and on the schedule specified in this Agreement.

(b) **Other Promises.** The IID fails to perform or observe any term, covenant, or undertaking in this Agreement that it is to perform or observe, and such default continues for forty-five (45) days from a Notice of Default being sent in the manner provided in § 18.6.

(c) **Warranties and Representations.** Any warranty, representation, or other statement made by or on behalf of the IID and contained (i) in this Agreement or (ii) in any other document furnished in compliance with or in reference to this Agreement is on the date made, or later proves to be, false, misleading, or untrue in any material respect.

ARTICLE 16

REMEDIES

16.1 **Specific Performance.** Each Party recognizes and agrees that the rights and obligations set forth in this Agreement are unique and of such a nature as to be inherently difficult or impossible to value monetarily. If one Party does not perform in accordance with the specific wording of any of the provisions in this Agreement applicable to that Party, or otherwise breaches, the other Party would likely suffer irreparable harm. Therefore, if either Party breaches this Agreement, an action at law for damages or other remedies at law would be wholly inadequate to protect the unique rights and interests of the other Party to the Agreement. Accordingly, in any court controversy concerning this Agreement, the Agreement's provisions will be enforceable in a court of equity by a decree of specific performance. This specific-performance remedy is not exclusive and is in addition to any other remedy available to the Parties.

16.2 **Cumulative Rights and Remedies.** The Parties do not intend that any right or remedy given to a Party on the breach of any provision under this Agreement be exclusive; each such right or remedy is cumulative and in addition to any other remedy provided in this Agreement or otherwise available at law or in equity. If the nonbreaching Party fails to exercise or delays in exercising any such right or remedy, the nonbreaching Party does not thereby waive that right or remedy. In addition, no single or partial exercise of any right, power, or privilege precludes any other or further exercise of a right, power, or privilege granted by this Agreement or otherwise.

16.3 **Action or Proceeding Between the Parties.** Each Party acknowledges that it is a "local agency" within the meaning of § 394(c) of the California Code of Civil Procedure ("CCP"). Each Party further acknowledges that any action or proceeding commenced by one Party against the other would, under § 394(a) of the CCP, as a matter of law be subject to

- (a) Being transferred to a "**Neutral County**," or
- (b) Instead, having a disinterested judge from a Neutral County assigned by the Chairman of the Judicial Council to hear the action or proceeding.

A "Neutral County" is one in which neither the Authority nor the IID is situated. Each Party hereby:

- (a) Stipulates to the action or proceeding being transferred to a Neutral County or to having a disinterested judge from a Neutral County assigned to hear the action or proceeding;
- (b) Waives the usual notice required under the law-and-motion provisions of Rule 317 of the California Rules of Court;
- (c) Consents to having any motion under § 394(c) heard with notice as an ex parte matter under Rule 379 of the California Rules of Court; and
- (d) Acknowledges that this Agreement, and in particular this section, may be submitted to the court as part of the moving papers.

Nothing in this section, however, impairs or limits the ability of a Party to contest the suitability of any particular county to serve as a Neutral County.

ARTICLE 17

RESOLUTION OF DISPUTES

All disputes ("**Disputes**") between the parties other than Events of Default or Events Constituting An Emergency shall be resolved pursuant to the provisions of this Article.

17.1 **Administrative Committee**. An "**Administrative Committee**" shall be established comprised of two representatives from each Party designated by each Party's General Manager. This Administrative Committee shall be formed for the general purpose of ensuring this Agreement is being administered and implemented in accordance with its terms. The Parties to this Agreement shall exercise their best efforts to resolve Disputes through the development of a consensus. The Parties shall alternate chairing the Administrative Committee. In each odd year, beginning in Agreement Year 1, a representative from IID shall be the Chair of the Administrative Committee. In each even year, beginning in Agreement Year 2, one of the Authority representatives shall be the Chair of the Administrative Committee. The Chair shall have the responsibility for scheduling all meetings required under this Article. A meeting of the Administrative Committee can be requested by either Party at any time. The Administrative Committee shall use best efforts to obtain consensus on the appropriate resolution of technical, administrative, financial, legal and operational issues that may arise from time to time. The Administrative Committee shall instruct, supervise and give direction to the Advisor.

17.2 **Employment of Advisor.** The Administrative Committee shall employ at the equal expense of both Parties an individual (the "**Advisor**") with the education and skills appropriate to assist the Administrative Committee acquire necessary information, evaluate information and reach consensus on issues that may arise concerning the Base Contract Price, Shortage Premium, Price Redetermination, Adjunct Contracts, Water Quality Transactions, Drought Transactions, Last Best Offer comparisons, and Shortage Sharing matters.

17.3 **Annual Meeting.** The Administrative Committee shall meet at least once annually, or as frequently as necessary, for the purpose of reviewing the administration and implementation of this Agreement.

17.4 **Dispute Resolution Procedure.** The Parties to this Agreement shall submit any Dispute related to or arising under this Agreement to the Administrative Committee for consideration. The Party raising the Dispute shall be required to submit a description of the Dispute in writing to the other Party ("**Notice of Dispute**"). Within fourteen (14) calendar days of the Party's receipt of the Notice of Dispute, the Chair shall schedule a meeting of the Administrative Committee to address the identified Dispute. The Administrative Committee shall convene a meeting within thirty (30) calendar days of the receipt of the Notice of Dispute and it shall use good faith and best efforts to resolve the Dispute.

17.5 **Content of Written Notice of Dispute.** The Notice of Dispute shall provide a brief description of the nature of the Dispute and any relevant background information that will assist the Administrative Committee in its attempt to fairly resolve the matter in conformance with the terms of this Agreement. The Notice shall identify the nature of the decision or relief requested.

17.6 **Failure of the Administrative Committee to Resolve the Dispute.** In the event that the Administrative Committee cannot resolve the Dispute, the resolution of the Dispute shall be referred to a panel comprised of two designated governing board representatives and one staff member or staff designee from each of the Parties ("**Dispute Panel**"). The six-member Dispute Panel shall meet at least once to discharge their good faith obligations to resolve the Dispute by consensus. The Parties may mutually agree to utilize the services of a professional mediator to facilitate dispute resolution. Any mediator shall be selected jointly by the Parties and his fees shall be paid equally by the Parties. Any individual who mediates a Dispute shall not be appointed by either Party as an arbitrator for resolution of that Dispute.

17.7 **Arbitration.** Any Dispute arising out of this Agreement which cannot be resolved by agreement shall be resolved through binding arbitration by a panel of arbitrators in an arbitration proceeding conducted in a Neutral County, or such other location as the Parties may agree. Arbitration proceedings may be initiated by either Party sending a demand for arbitration to the other Party in conformance with the Notice provisions of this Agreement. The Parties shall impanel a group of three arbitrators by each selecting an arbitrator of their choice who shall then select the third member of the panel. If the two arbitrators appointed by the Parties cannot agree on a third arbitrator within ten (10) Business Days from the initiation of the arbitration proceeding, the third neutral arbitrator shall be selected by the presiding judge of the Neutral County superior court. At least one of the arbitrators must be a person who has actively engaged

in the practice of law with expertise deciding disputes and interpreting contracts. Prior to the commencement of proceedings, the appointed arbitrators will take an oath of impartiality. The Parties shall use their reasonable best efforts to have the arbitration proceeding concluded within ninety (90) Business Days of the selection of the third panel member.

In rendering the award, the arbitrators shall determine the rights and obligations of the Parties according to the substantive and procedural laws of California. All discovery shall be governed by the CCP with all applicable time periods for notice and scheduling provided therein being reduced by one-half (½). The arbitrators may establish other discovery limitations or rules. The arbitration process will otherwise be governed by the Commercial Arbitration Rules of the American Arbitration Association. All issues regarding compliance with discovery requests shall be decided by the arbitrators. A decision by two of three arbitrators will be deemed the arbitration decision. The arbitration decision shall be in writing and shall specify the factual and legal bases for the decision. The decision of such arbitrators shall be final and binding upon the parties, and judgment upon the decision rendered by the arbitration may be entered in the Neutral County superior court.

The costs (including, but not limited to, reasonable fees and expenses of counsel and expert or consultant fees and costs), incurred in an arbitration (including the costs to enforce or preserve the decision) shall be borne by the Party whom the decision is against. If the decision is not clearly against one Party on one or more issues, each Party shall bear its own costs. The arbitration decision shall identify whether any Party shall be responsible for the other Party's costs.

17.8 **Event Constituting An Emergency.** An Event Constituting An Emergency shall not be subject to the provisions of this Article 17.

ARTICLE 18

GENERAL PROVISIONS

18.1 **No Third-Party Rights.** This Agreement is made solely for the benefit of the Parties and their respective permitted successors and assigns (if any). Except for such a permitted successor or assign, no other person or entity may have or acquire any right by virtue of this Agreement.

18.2 **Counting Days.** Days shall be counted by excluding the first day and including the last day, unless the last day is not a Business Day, and then it shall be excluded. Any act required by this Agreement to be performed by a certain day shall be timely performed if it is completed before 5:00 p.m. Pacific Time on that date, unless otherwise specified. If the day for performing any obligation under this Agreement is not a Business Day, then the time for performing that obligation shall be extended to 5:00 p.m. Pacific Time on the next Business Day.

18.3 **Ambiguities.** Each Party and its counsel have participated fully in the drafting, review and revision of this Agreement. A rule of construction to the effect that ambiguities are to be resolved against the drafting Party will not apply in interpreting this Agreement, including any amendments or modifications.

18.4 **Governing Law.** California law governs this Agreement and any dispute arising from the relationship between the Parties under the Agreement.

18.5 **Binding Effect; No Assignment.** This Agreement is and will be binding upon and will inure to the benefit of the Parties and, upon dissolution, the legal successors and assigns of their assets and liabilities. Except as permitted in § 3.3 regarding the limited Re-Transfers by the Authority, neither Party may assign any of its rights or delegate any of its duties under this Agreement. Any Assignment or Delegation made in violation of this Agreement is void and of no force or effect.

18.6 **Notices.** All notices, requests, demands, or other communications under this Agreement must be in writing, and sent to both addressees of each Party. Notice will be sufficiently given for all purposes as follows:

- *Personal Delivery.* When personally delivered to the recipient. Notice is effective on delivery.
- *First-Class Mail.* When mailed first-class to the last address of the recipient known to the Party giving notice. Notice is effective five mail delivery days after it is deposited in a United States Postal Service office or mailbox.
- *Certified Mail.* When mailed certified mail, return receipt requested. Notice is effective on receipt, if a return receipt confirms delivery.
- *Overnight Delivery.* When delivered by an overnight delivery service such as Federal Express, charged prepaid or charged to the sender's account. Notice is effective on delivery, if delivery is confirmed by the delivery service.

Addresses for purpose of giving notice are as follows:

To IID: Imperial Irrigation District
333 E. Barioni Boulevard
P.O. Box 937
Imperial, California 92251
Attn: General Manager
Telephone: 760-339-9477

With a copy to: Horton, Knox, Carter & Foote
895 Broadway
El Centro, California 92243
Attn: John P. Carter, Chief Counsel
Telephone: 760-352-2821

To Authority: San Diego County Water Authority
3211 Fifth Avenue
San Diego, California 92103
Attn: General Manager
Telephone: 619-682-4202

With a copy to: San Diego County Water Authority
3211 Fifth Avenue
San Diego, California 92103
Attn: General Counsel
Telephone: 619-682-4113

(a) A correctly addressed notice that is refused, unclaimed, or undeliverable because of an act or omission by the Party to be notified will be deemed effective as of the first date that that notice was refused, unclaimed, or deemed undeliverable by the postal authorities, messenger, or overnight delivery service.

(b) A Party may change its address by giving the other Party notice of the change in any manner permitted by this Agreement.

18.7 **Entire Agreement.** This Agreement (including the exhibits and schedules attached to this Agreement) constitutes the final, complete, and exclusive statement of the terms of the agreement between the Parties pertaining to the transfer of Conserved Water and supersedes all prior and contemporaneous understandings or agreements of the Parties. Neither Party has been induced to enter into this Agreement by, nor is either Party relying on, any representation or warranty outside those expressly set forth in this Agreement.

18.8 **Time of the Essence.** Time is of the essence of and under this Agreement and of every provision thereof.

18.9 **Modification.** This Agreement may be supplemented, amended, or modified only by the agreement of the Parties. No supplement, amendment, or modification will be binding unless it is in writing and signed by both Parties.

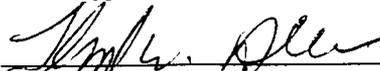
18.10 **Waiver.** No waiver of a breach, failure of condition, or any right or remedy contained in or granted by the provisions of this Agreement is effective unless it is in writing and signed by the Party waiving the breach, failure, right, or remedy. No waiver of a breach, failure of condition, or right or remedy is or may be deemed a waiver of any other breach, failure, right or remedy, whether similar or not. In addition, no waiver will constitute a continuing waiver unless the writing so specifies.

18.11 **Joint Defense.** The Parties agree to proceed with reasonable diligence and use reasonable best efforts to jointly defend any lawsuit or administrative proceeding challenging the legality, validity, or enforceability of any term of this Agreement, or any Party's right to act in accordance with any of the terms of this Agreement.

IN WITNESS WHEREOF, the IID and the Authority have executed this Agreement as of the day and year first written above.

“IID”

IMPERIAL IRRIGATION DISTRICT,
a California irrigation district

By: 
Lloyd W. Allen
Its: President

By: 
Bruce Kuhn
Its: Vice-President

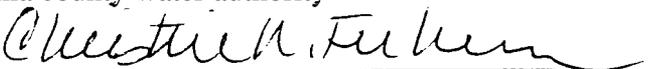
By: 
John Penn Carter
IL: secretary

Approved as to form:

By: 
John Penn Carter
Its Chief Counsel

“Authority”

SAN DIEGO COUNTY WATER AUTHORITY,
a California county water authority

By: 
Christine M. Frahm
Its: Chairman

By: 
Joseph Parker
Its: Vice-Chairman

By: 
Harold W. Ball
Its: Secretary

Approved as to form:

By: 
Daniel S. Hentschke
Its General Counsel

EXHIBITS TO AGREEMENT FOR TRANSFER OF CONSERVED WATER

Exhibit A: Base Contract Price

This exhibit illustrates the calculation of the “**Base Contract Price.**” The Base Contract Price is calculated by determining the **MWD Full Water Rate, Base Wheeling Rate, Applicable Discount Rate,** and **Actual Wheeling Rate** (§ 5.1). The Base Contract Price is subject to a Price Redetermination (§ 5.3). For an illustration of the impact of a Price Redetermination on the Base Contract Price, see Exhibit E: Price Redetermination.

Base Contract Price

The formula for the Base Contract Price is as follows (see § 5.1):

$$\text{Base Contract Price} = (\text{MWD Full Water Rate} - \text{Base Wheeling Rate}) \times (1 - \text{Applicable Discount Rate}) + 50\% (\text{Base Wheeling Rate} - \text{Actual Wheeling Rate})$$

The Applicable Discount Rate is governed by the following schedule:

Agreement Year	Discount Rate
1	.2500
2	.2389
3	.2278
4	.2167
5	.2056
6	.1944
7	.1833
8	.1722
9	.1611
10	.1500
11	.1350
12	.1200
13	.1050
14	.0900
15	.0750
16	.0625
17 and thereafter	.0500

The calculation of each component is as follows:

MWD Full Water Rate

The definition of the MWD Full Water Rate is as follows (§ 5.1):¹

¹ Terms in **bold** are defined in § 1.1 of the **Agreement.**

MWD Full Water Rate =	<p>Untreated Full Service Water Rate +</p> <p>Per AF valuation of other Volume-Sensitive Charges +</p> <p>Non-Volume Sensitive Charges ÷ the Four-Year Rolling Average of (the quantity of Authority purchases from MWD + the quantity of IID Conserved Water transferred to the Authority)</p>
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To find the per AF value for each addend, examine the most current MWD Board resolutions setting MWD's rates, charges, fees and property taxes in effect as of the date of the calculation of the MWD Full Water Rate.

(a) Untreated Full Service Water Rate and Volume-Sensitive Charges. Suppose an MWD Board resolution adopted water rates as follows:²

Class of Service	Rate or Charge
Full Service — Untreated	\$349/AF
Full Service — Treated	\$431/AF
Agricultural — Untreated	\$236/AF
Agricultural — Treated	\$294/AF
Seasonal Storage, Long-Term — Untreated	\$233/AF
Seasonal Storage, Long-Term — Treated	\$290/AF
Seasonal Storage, Shift — Untreated	\$244/AF
Seasonal Storage, Shift — Treated	\$301/AF
Recycled	\$113/AF

The definition of the MWD Full Water Rate includes only the rate for Untreated Full Service and other Volume-Sensitive Charges. Volume-Sensitive Charges specifically exclude charges for treated, agricultural, seasonal storage, and recycled water service (§ 5.1). Under this example, MWD is not levying a rate or charge within the definition of Volume-Sensitive Charges. Therefore, while other Volume-Sensitive Charges could be included in the MWD Full Water Rate, none would be under this example and the entry for Volume-Sensitive Charges is \$0 per

² This example is based on “Recommended Water Rates for Fiscal Year 1997-98 to Become Effective January 1, 1998 and Resolutions to Impose Charges,” memorandum dated February 25, 1997 from MWD General Manager to MWD Board of Directors.

AF. Therefore, only the \$349 per AF rate for Untreated Full Service would be included in the calculation of the MWD Full Water Rate for the first two addends

(b) Non-Volume Sensitive Charges. MWD in 1997 levied three types of rates and charges that must be analyzed for inclusion as Non-Volume Sensitive Charges for the calculation of the MWD Full Water Rate.

First, the Readiness-To-Serve (“RTS”) charge for 1997 did not vary by the quantity of water delivered by MWD to the Authority in 1997. Thus, the RTS charge does not meet the definition of Volume-Sensitive Charges (§ 5.1), and is not one of the charges or taxes specifically excluded from the definition of Non-Volume Sensitive Charges (§ 5.1). Therefore, the RTS charge is includable in the MWD Full Water Rate as part of the Non-Volume Sensitive Charges. If the MWD Board resolution adopting the RTS obligation of MWD member agencies stated that the Authority’s obligation for the 1997 year was \$24,782,000, regardless of the method MWD uses to collect this obligation,³ the full \$24,782,000 is included as part of the Non-Volume Sensitive Charges.

Second, MWD property taxes levied below the **Property Tax Rate Limit** are excluded from the calculation of Non-Volume Sensitive Charges (§ 5.1). Therefore, it is necessary to check whether the property taxes levied by MWD equals or exceeds the Property Tax Rate Limit. This requires examination of the MWD Board resolution adopted in August of each year and supporting staff memorandum authorizing the levy of MWD's property taxes, as well as confirmation that MWD calculates its property tax limit under MWD Act § 124.5 consistent with the definition of the Property Tax Rate Limit in the Agreement (§ 5.1). In fiscal year 1997-98, for example, suppose MWD levied net property taxes of \$84.3 million, while its net property tax limit was \$100.1 million. The calculation conforms with the definition of the Property Tax Rate Limit

³ As allowed under Section 4402 of the Metropolitan District Administrative Code, MWD allows its member agencies to pay their RTS obligation by having MWD levy a “standby charge” on parcels within the service area of the member agency. Other than for the specific exclusions stated in the definition of Non-Volume Sensitive Charges (§ 5.1), all Non-Volume Sensitive Charges are included, regardless of the method MWD uses to collect the charges (§ 5.1).

in the Agreement.' MWD's levied property taxes for the 1997-98 example fall below the defined Property Tax Rate Limit, therefore MWD's property taxes are excluded from the calculation of the Non-Volume Sensitive Charges and from the MWD Full Water Rate.⁵

Third, MWD connection maintenance charges paid in excess of the **Excluded Connection Maintenance Charges**, i.e., in excess of \$200 cubic feet per second ("cfs") of connected capacity per month are included in the calculation of the MWD Full Water Rate (see § 5.2). In 1997, for example, MWD levied a charge of \$50 per cfs of capacity per month. Therefore, the amount of connection maintenance charges in excess of the Excluded Connection Maintenance Charges is zero.⁶

Thus, under the 1997 example, Non-Volume Sensitive Charges total \$24,782,000. If the Authority's Four-Year Rolling Average of purchases from MWD plus transfers from IID totalled

⁴ See MWD Board Resolution of August 19, 1997, and supporting staff memorandum dated August 5, 1997. If the MWD limit does not conform with the definition of the Property Tax Rate Limit, then the MWD limit must be calculated according to the definition.

⁵ If MWD levied property taxes in excess of the Property Tax Rate Limit, then the amount of revenues included in the calculation of the MWD Full Water Rate would be as follows:

- **Step 1:** Calculate the amount by which MWD's levied property taxes exceed the Property Tax Rate Limit. The excess property tax rate (EPTR) equals (MWD property tax levies - Property Tax Limit) ÷ total taxable assessed valuation of MWD service area for the applicable fiscal year.
- **Step 2:** Calculate the amount of property taxes included as a Non-Volume Sensitive Charge. The amount of included property taxes equals the EPTR times the taxable assessed valuation of the Authority service area for the applicable fiscal year.

For example, suppose that MWD levies property taxes of \$120 million (a property tax rate of .0070 percent on a total taxable assessed valuation of \$15 billion), while the Property Tax Rate Limit is only \$100 million. MWD's property tax levies would exceed the Property Tax Rate Limit by \$20 million. The excess property tax rate would be .0013 (\$20 million divided by \$15 billion). If the taxable assessed valuation of the Authority equaled \$3.75 billion, then a total of \$5 million of property taxes (.0013 multiplied by \$3.75 billion) would be included in the calculation of Non-Volume Sensitive Charges.

⁶ If MWD levies a connection maintenance charge in excess of \$200 per cfs of capacity per month, then the amount of revenues included as connection maintenance charges in the calculation of Non-Volume Sensitive Charges would be the following: (MWD connection maintenance charges - Excluded Connection Maintenance Charges), multiplied by the Authority's capacity. If the MWD charge were \$300 per cfs of capacity per month and the Authority's capacity were 1,000 cfs, then a total of \$1.2 million of connection maintenance charges [12 x (\$300 per cfs - \$200 per cfs) x 1,000 cfs of capacity] would be included in the calculation of Non-Volume Sensitive Charges.

485,000 AF, then Non-Volume Sensitive Charges would total \$51 per AF calculated as [\$24,782,000 ÷ 485,000].

(c) MWD Full Water Rate. The example MWD Full Water Rate would total \$400 per AF, determined as the Untreated Full Service Water Rate of \$349 per AF plus \$0 per AF of Volume-Sensitive Charges plus \$51 per AF of Non-Volume Sensitive Charges.

Base Wheeling Rate

The calculation of the Base Wheeling Rate is dependent on the defined costs actually incurred by MWD for the facilities used along the defined **Conveyance Path**.

(a) Method to Calculate Amortized Amount of Net Book Value for Remaining Useful Life of Each Facility in the Conveyance Path Reach. The calculation starts with the computation of Net Book Value. The formula is:

$$NBV_t = [1 - (t - 1) \div L] \times I,$$

where,

NBV_t = the remaining undepreciated initial capital investment in year "t"

t = the number of years the facility has been in operation (t=1 for the first year of useful life)

L = useful life of the facility

I, = initial capital investment in the facility

For example, if the initial capital investment in a facility with a useful life of 80 years was \$100 million, then the Net Book Value in the tenth year of the facility's useful life would be \$88,750,000.⁷

The next step is to calculate the annual amortized amount of the Net Book Value over the remaining useful life of the facility. The formula is:

$$ANBV_t = NBV_t \div PV_{L-t}$$

where,

$ANBV_t$ = annual amortized amount of the Net Book Value for year t

⁷ \$88,750,000 = [1 - (10 - 1) ÷ 80] x \$100,000,000 = .8875 x \$100,000,000

PV_{L-t} = the present value of receiving an annual payment of \$1 starting in year t for the remaining useful life of the facility using an interest rate equal to the most recent estimate of MWD's historical weighted average cost of capital

For example, the amortized amount of the \$88,750,000 of Net Book Value as of the 10th year of a facility with useful life of 80 years, assuming an average cost of capital of 6.5%, is:⁸

$$ANBV_t = \$88,750,000 \div \$15.20 = \$5,838,816$$

If the rated annual capacity of the facility were 1,000,000 AF, then the capital cost component of the Base Wheeling Rate would be \$5.84 per AF calculated as [$\$5,838,816 \div 1,000,000$ AF].

(b) Method to Calculate Replacement Cost. The calculation starts with the amortization of any replacement costs caused by the wheeling of Conserved Water. The formula is:

$$ARC_t = RC_t \div PV_L$$

where,

ARC_t = amortized replacement costs incurred in year t

RC_t = replacement cost incurred in year t

PV_L = the present value of receiving an annual payment of \$1 starting in year t for the **useful** life of the replacement equipment using an interest rate equal to the most recent estimate of MWD's historical weighted average cost of capital

Suppose the wheeling of 100,000 AF in year t required the replacement of equipment costing \$10,000,000. If the wheeling of 100,000 AF used, for example, 1/10th of the equipment's capacity, then the replacement cost incurred in year t would be \$1,000,000. Assuming that the useful life of the equipment were 10 years, then the amortized replacement costs would be⁹:

$$ARC_t = \$1,000,000 \div \$7.19 = \$139,105$$

or \$1.39 per AF calculated as [$\$139,105 \div 100,000$ AF].

⁸ The present value of \$1 received over 70 years using an interest rate of 6.5% equals \$15.20.

⁹ The present value of \$1 received over 10 years using an interest rate of 6.5% equals \$7.19.

(c) Sample Calculation of Base Wheeling Rate. The calculation of the Base Wheeling Rate sums the annual total of **Reach Wheeling Charges** divided by the difference between the annual volume of Conserved Water transferred to the Authority and any **Conveyance Losses**. The Reach Wheeling Charge for each Conveyance Path Reach is the sum of the **Conveyance Path Capital Costs** (the undepreciated initial capital investment amortized over the remaining useful life of the facility), **Conveyance Path Operation and Maintenance Costs, Conveyance Path Replacement Costs, and Conveyance Path Power Costs**

Exemplar Base Contract Price

Assuming a MWD Full Water Rate of \$400 per AF, a Base Wheeling Rate of \$68.50 per AF, and an Actual Wheeling Rate equal to the Base Wheeling Rate, the Base Contract Price would be calculated as follows:

$$\text{Base Contract Price} = (\text{MWD Full Water Rate} - \text{Base Wheeling Rate}) \times (1 - \text{Applicable Discount Rate}) + 50\% \times (\text{Base Wheeling Rate} - \text{Actual Wheeling Rate}), \text{ or}$$

$$\text{Base Contract Price} = (\$400 \text{ per AF} - \$68.50 \text{ per AF}) \times (1 - \text{Applicable Discount Rate}) + 50\% \times (\$68.50 \text{ per AF} - \$68.50 \text{ per AF}), \text{ or}$$

$$\text{Base Contract Price} = (\$33 \text{ 1.50 per AF}) \times (1 - \text{Applicable Discount Rate})$$

In the first year water is transferred, the Applicable Discount Rate equals 25%. Therefore, the example Base Contract Price would equal \$248.63 per AF calculated as (\$33 1.50) x (75%).

Finally, suppose that a Supplemental Wheeling Charge of \$40 per AF was paid in the year for the entire amount of water the Authority diverted at the diversion point, then:

$$\text{Base Contract Price} = (\$400 \text{ per AF} - \$68.50 \text{ per AF}) \times (1 - \mathbf{25\%}) + \mathbf{50\% \times (\$68.50 \text{ per AF} - \$108.50 \text{ per AF}), \text{ or}$$

$$\text{Base Contract Price} = (\$331.50) \times (75\%) + 50\% \times (\mathbf{-\$40}), \text{ or}$$

$$\text{Base Contract Price} = \$248.63 - \$20, \text{ or}$$

$$\text{Base Contract Price} = \$228.63$$

Impact of New Direct Property Charge

Suppose that MWD subsequently collects a rate or charge from a landowner or developer within the jurisdictional boundary of the Authority. The revenues collected by a New **Direct Property Charge** would affect the calculation of the MWD Full Water Rate in the following way,

Step I: Amortize any one-time charge collected in a year over a 30-year period at the Authority's existing cost of capital. The formula is:

$$ANDPC_t = CNDPC_t \div PV_L$$

where,

$ANDPC_t$ = amortized amount of one-time New Direct Property Charge collected by MWD in year t

$CNDPC_t$ = collection of one-time New Direct Property Charge collected by MWD in year t

PV_L = the present value of receiving an annual payment of \$1 starting in year t for 30 years using an interest rate equal to the most recent estimate of Authority's cost of capital

For example, if MWD collected \$10 million in one-time charges in a year and the Authority's cost of capital were 6%, then"

$$ANDPC_t = \$1,000,000 \div \$13.76 = \$726,489$$

Step 2: Calculate the total of the amortized one-time New Direct Property Charges collected in each of the past 30 years. For example, if MWD started collection of New Direct Property Charges two years ago, this calculation must only consider the amortization of collections for the two prior years. If MWD collected \$5 million in the first year and \$7.5 million in the second year, then the total of the amortized one-time New Direct Property Charges in a year, assuming that the Authority's cost of capital were 6% in each year, would be:"

$$\$1,634,601 = \$363,245 + \$544,867 + \$726,489$$

Step 3: Calculate per AF total of amortized one-time New Direct Property Charge by dividing the total of the amortized one-time New Direct Property Charges by the Authority's

¹⁰ The present value of receiving \$1 for 30 years with an interest rate of 6% equals \$13.76.

¹¹ $\$363,245 = \$5 \text{ million} \div \$13.76$; $\$544,867 = \$7.5 \text{ million} \div \13.76

Four-Year Rolling Average of purchases from MWD and IID. In the above example, if this Four-Year Rolling Average were 485,000 AF, then the per AF total amortized one-time New Direct Property Charge would be \$3.37 per AF.¹²

Step 4: Adjust the calculated value of the MWD Full Water Rate by the per AF total amortized one-time New Direct Property Charge according to the following procedure:

- exclude from the calculation until the inclusion of the charge would increase the MWD Full Water Rate by 5%
- include in the calculation once the inclusion of the charge would increase the MWD Full Water Rate by more than 5% but less than 15%, but the increase up to 5% must first be deducted
- include in the calculation one-half the portion increase greater than 15%

If the MWD Full Water Rate were \$400 per AF without inclusion of any of the total amortized one-time New Direct Property Charge, then the MWD Full Water Rate used in the calculation of the Base Contract Price for various levels of the per AF total amortized New Direct Property Charge would be:¹³

¹² $\$3.37 \text{ per AF} = \$1,634,601 \div 485,000 \text{ AF}$

¹³ The total amortized New Direct Property Charge would not be included in the MWD Full Water Rate until the charge equaled 5% of the MWD Full Water Rate or, in this example, \$20 per AF (5% of \$400 per AF). Therefore, the MWD Full Water Rate remains at \$400 per AF until the charge reaches \$20 per AF. Until the charge equals 15% of the charge, or \$60 per AF (15% of \$400 per AF), the portion of the charge above \$20 per AF is included in the calculation of the MWD Full Water Rate. Therefore, the MWD Full Water Rate increases dollar-for-dollar with the increase in the charge until the charge reaches \$60 per AF. When the charge exceeds \$60 per AF, one-half of the portion of the charge above \$60 per AF is included in the calculation of the MWD Full Water Rate. Therefore, the MWD Full Water Rate increases fifty cents for each dollar increase in the charge above \$60 per AF.

Total Amortized New Direct Property Charge	MWD Full Water Rate
\$0	\$400
\$10	\$400
\$20	\$400
\$30	\$410
\$40	\$420
\$50	\$430
\$60	\$440
\$70	\$445
\$80	\$450
\$90	\$455
\$100	\$460

Once the total amortized one-time New Direct Property Charge equals 25% of the MWD Full Water Rate if the charge were fully excluded, the IID may elect to shift the weighting to 100% reliance on **Eligible Transactions** and to recalculate the result of the immediately preceding Price Redetermination and any future Price Redeterminations. In the above example, the IID election may occur once the total amortized one-time New Direct Property Charge exceeds \$100 per AF.

Impact of Provision of Contributed Power On Base Wheeling Rate

Either Party may arrange to make available to MWD the quantity of power needed to wheel the **Reach Quantity** at terms cheaper than MWD's power costs. The provision of any such **Contributed Power** is an in-lieu payment of MWD's power costs. See § 11(ai).

Suppose, for example, that MWD's power costs were \$30 per AF, but either IID or the Authority arranges for the provision of Contributed Power at a cost of \$20 per AF. The calculation of the Base Wheeling Rate shall include \$20 per AF in the calculation of Conveyance Path Power Costs, not MWD's power cost of \$30 per AF. Therefore, if the Base Wheeling Rate were \$68.50 per AF if MWD power were used to convey the Reach Quantity, then the Base Wheeling Rate would be \$58.50 per AF with the use of Contributed Power

Since the Authority is responsible for the transportation of the Conserved Water, the Authority shall incur the cost of Contributed Power if it arranges for the Contributed Power, or the Authority shall reimburse IID for the costs of Contributed Power if IID arranges for the provision of the Contributed Power.

Impact of Fundamental Change

The calculation of the **Replacement Water Rate** is as follows:

Step 1 - Calculate the escalation provision for the Replacement Water Rate. This escalation provision is defined as follows:

$$\text{Escalation Provision} = \text{annual percent change in the real MWD Full Water Rate in period prior to the **Fundamental Change Date** + annual change in **CPI** .}$$

The annual percent change in the real MWD Full Water Rate in the period prior to the Fundamental Change Date equals the annual rate of compound growth in the MWD Full Water Rate in that period, minus the annual rate of compound growth in the CPI in that period.”

For example, suppose that a Fundamental Change occurs in Agreement Year 20, and the MWD Full Water Rate and the CPI were as follows:

Agreement Year	MWD Full Water Rate	CPI
10	\$450/AF	250
20	\$600/AF	300

¹⁴ The formula for the calculation of the annual rate of compound growth is $(P_e/P_b)^{1/T} - 1$, where P_e = price at the end of the period, P_b = price at the beginning of the period, and T = the number of years in the period.

The annual percent change in the real MWD Full Water Rate in the period prior to the Fundamental Change Date would be:"

$$1.1\% = 2.9\% - 1.8\%$$

Therefore, the escalation provision for the MWD Replacement Water Rate would be 1.1% + annual change in the CPI.

Step 2 - Calculate the Replacement Water Rate.

The Replacement Water Rate equals the MWD Full Water Rate in effect at the Fundamental Change Date, escalated by the escalation provisions for the Replacement Water Rate. In the above example, if the CPI increased by 2% between Agreement Year 20 and Agreement Year 21, the Replacement Water Rate in Agreement Year 21 would equal \$618.50 per AF.¹⁶ In subsequent years, the Replacement Water Rate in an Agreement Year equals the Replacement Water Rate in the prior year escalated by 1.1% plus the annual change in the CPI during the prior year.

¹⁵ $2.9\% = (600/450)^{1/10} - 1$, equals 1.029 - 1, equals .029, equals 2.9%;
 $1.8\% = (300/250)^{1/10} - 1$, equals 1.018 - 1, equals 0.18, equals 1.8%.

¹⁶ \$618.50 per AF = \$600 per AF x (1+2% + 1.1%).

Exhibit B: Shortage Sharing Calculations

This exhibit illustrates the calculation of the Shortage Sharing provisions (Article 11) when the **Secretary*** declares a shortage of Colorado River water of sufficient magnitude to require a reduction in the quantity of water available under **IID**'s priority 3 right

Assumptions

IID's Priority 3 Forbearance Cap.....	3,100,000 AF
Quantity of Conserved Water	200,000 AF
Authority Pro Rata Share ²	6.452%
Total Annual Reduction.....	100,000 AF

Allocation of Required Annual Reduction

Authority ³	6,452 AF
IID	93,548 AF
Total	100,000 AF

Allocation of Allowed Annual Use of Water under IID's Priority 3 Right During Shortage

Annual amount transferred to Authority ⁴	193,548 AF
Annual amount of water available to IID ⁵	2,806,452 AF

¹ Terms in **bold are** defined in § 1.1 of the **Agreement**.

² Pro rata share = Quantity of Conserved Water ÷ **IID**'s Priority 3 Forbearance Cap.

³ Authority pro rata share multiplied by required reduction.

⁴ **Annual** quantity of Conserved Water (200,000 AF) less Allocation of Required Annual Reduction to Authority (6,452 AF).

⁵ **IID**'s Priority 3 Forbearance Cap (3,100,000 AF) less annual quantity of Conserved Water (200,000 AF), less Allocation of Required Annual Reduction to **IID** (93,548 AF).

Allocation of Allowed Use of Water if Shortage Declaration Becomes Effective During a Water Year

- *Amount remaining for transfer to Authority for remainder of water year:*
193,548 AF less the Authority's actual diversions during the water year before the shortage declaration became effective
- *Amount remaining for use by IID for remainder of water year:* 2,806,452 AF less IID's actual diversions (less return flows) during the water year before the shortage declaration became effective

Exhibit C: Shortage Sharing Procedures

This exhibit describes the procedures available to the **Authority**¹ and **IID** under Article 11 of the Agreement when normal contract deliveries from **IID** to the Authority would or might be reduced due to a reduction, or threatened reduction, in **IID**'s allowed diversions (less return flows) under its priority 3 right due to a Lower Colorado River shortage.

Notice of Impending Shortage and Supplemental Agreement

A **Notice of Impending Shortage** may be sent by either **Party** under the criteria described in §11.2. Following a Party's receipt of a Notice of Impending Shortage, the Parties will meet and confer within 45 days to discuss and negotiate a mutually acceptable **Supplemental Agreement** for the transfer of **Conserved Water** to the Authority. If the negotiations are successful the Parties will execute and implement a Supplemental Agreement. The Supplemental Agreement will remain in effect according to its terms, except that it shall be void and have no force and effect if a normal or surplus condition is declared without a shortage condition having been declared, or a normal or surplus condition having been declared after a shortage condition, but the declared shortage never caused a reduction in **IID**'s priority 3 diversions (less return flows). If a Supplemental Agreement has not been reached within 60 days after delivery of the Notice of Impending Shortage, the Authority shall have a right of first refusal for any **IID** contract for the delivery of Conserved Water with a third party that is executed **after** the Notice of Impending Shortage and that provides for water to be transferred sooner than 18 months **from** execution, so long as the **Secretary** has not yet declared that the Colorado River is in a normal or surplus flow condition.

¹ Terms in **bold** are defined in § 1.1 of the **Agreement**.

For example, assume that the seasonal runoff for the Colorado River forecast by the **BOR** in cooperation with the National Weather Service on April 2 of Year X indicates that during the next 12 months the unregulated inflow into Lake Powell will be less than 8,800,000 **AF**, and the usable storage in Lake Mead as of the date of the forecast is less than 15,000,000 **AF**. A Notice of Impending Shortage may then be sent by one of the Parties and the Parties would begin negotiations and attempt to reach a Supplemental Agreement within 60 days.

Authority Right of First Refusal on IID Shortage Contracts

Assume that the Colorado River forecast and hydrology do not change sufficiently to result in the Secretary's declaration of a normal or surplus flow condition and that the Parties have not entered into a Supplemental Agreement within 60 days of delivery of the Notice of Impending Shortage. In the event **IID** were to negotiate a contract with XYZ water district for the delivery of 20,000 **AF** of Conserved Water (**Shortage Contract**) over a 24-month period at the price of \$600 per **AFY**, it would then be submitted to **IID's** Board for approval and execution.

Within five days of the later of the **IID** Board's approval or execution of the Shortage Contract, **IID** would be required to send a copy of the Shortage Contract and a **Notice of Right to Exercise Right of First Refusal** to the Authority. Having received the Notice and a copy of the Shortage Contract, the Authority would then have the option to exercise its right of first refusal by stepping into the position of the XYZ water district. Therefore, the Authority would be obligated to pay \$600 per **AFY** for 20,000 **AFY** over the entire 24-month period.

If the Authority failed to exercise its right of first **refusal** within 45 days of its receipt of the Notice of Right to Exercise Right of First Refusal, then **IID** would be free to deliver the Conserved Water to XYZ under its Shortage Contract without regard to the Authority's projected or existing shortage under this Agreement.

However, the Authority's right of first refusal would not be extinguished with respect to newly negotiated contracts between IID and XYZ or other third parties. For example, assume that the Secretary fails to declare a normal or surplus year for the balance of the Agreement Year. If IID were to negotiate a second Shortage Contract with ABC water district for 40,000 AF to be delivered over a period of 12 months at a price of \$300 per AF, the Authority would have the option of stepping into the position of ABC under the terms agreed to by IID and ABC.

The Authority's right of first refusal would continue and be applicable to any of IID's Shortage Contracts until a normal or surplus condition is declared. Declaration of a normal or surplus condition would not affect any Shortage Contract for which the Authority has exercised a right of first refusal, unless such were the case according to the terms and conditions of the contract.

Cover Contracts

The Authority has one other option, execution of a **Cover Contract** with specified IID reimbursement obligations, if all of the following apply:

The Authority is experiencing a pro rata reduction of **Primary Transfer Water** under the terms of § 11.1;

The Authority and IID have not entered into a Supplemental Agreement which provides an amount of water equal to or greater than the amount of the Authority's pro rata reduction;

The Authority has not exercised a right of first refusal for one or more Shortage Contracts which provide in total an amount of water equal to or greater than the amount of the Authority's pro rata reduction;

A **Notice of Waiver** has been sent by either Party; and

The **Authority Shortage** declared by the Authority has a percentage magnitude greater than or equal to 30%.

If these conditions apply, the Authority may elect to acquire water (**Cover Water**) from a third party or parties through a Cover Contract(s) in order to make up partially or entirely the pro rata reduction in Primary Transfer Water only which would occur pursuant to § 11.1.

(This provision does not apply to making up any pro rata reduction in **Additional Available Water** for which the Authority and **IID** have contracted.) Within five days of Authority Board approval of a Cover Contract, the Authority shall deliver a copy of the contract to the **IID**.

Provided that a Notice of Waiver has been previously sent and that an Authority shortage condition with a percentage magnitude of 30% or greater has been declared by the Authority Board, the **IID** shall reimburse the Authority for 50% of the difference between the cost per acre foot of the Cover Water and the water being transferred to the Authority by the **IID** under the Agreement. However, the **IID's** obligation to pay extends only to the actual amount of water equal to the Authority's pro rata reduction in Primary Transfer Water, and under no circumstances shall exceed \$100 per AF multiplied by 15% of the Primary Transfer Water that would have been transferred to the Authority but for the shortage condition. If the **IID** incurs a reimbursement obligation, it shall terminate upon declaration of a normal or surplus condition.

For example, assume the following:

During a normal or surplus condition, the Authority receives 200,000 AFY in Primary Transfer Water under this Agreement

During a normal or surplus condition, the Authority also receives 50,000 AFY in Additional Available Water, for a total amount of water under this Agreement of 250,000 AFY.

- The cost of water to the Authority under this Agreement, using the methodology to determine cost of water under an **Eligible Transaction** in the Price Redetermination process (which includes cost of delivery to the Authority service area) is \$400 per AF.
- Due to the declaration of a shortage condition, IID's diversions (less return flows) under its priority 3 right has been reduced from 3.1 million AFY to 2.8 million AF. The Authority and IID have not entered into a Supplemental Agreement, the Authority has not exercised a right of first refusal on an IID Shortage Contract, a Party has previously sent a Notice of Waiver, and the Authority Shortage is greater than or equal to 30%.

The Authority has executed a contract with Alpha Water Company to provide 50,000 AFY of water at a net contract value of \$500 per AF based on the same methodology as used for an **Eligible Transaction** in a Price Redetermination. Within five days of Board approval, the Authority has delivered a copy of the contract to the IID as a Cover Contract.

Under these circumstances, the IID obligation to reimburse the Authority is computed as follows:

1. The Authority reduction in Primary Transfer Water is calculated as 200,000 AF (Primary Transfer Water amount) divided by 3,100,000 AF multiplied by 300,000 AF (the amount of the shortage), or $200,000 \div 3,100,000 \times 300,000$. This equals a total pro rata reduction of 19,355 AFY. Using a similar formula, the reduction in the amount of Additional Transfer water is $50,000 \div 3,100,000 \times 300,000$, which equals 4,839 AFY. The total Authority reduction, then, is 24,194 AFY.

2. IID's obligation to reimburse is limited. First, the annual reimbursement obligation applies only to the amount of the pro rata reduction in Primary Transfer Water, or 19,355 AFY. Second, the obligation applies to only a maximum of 15% of the normal amount of Primary Transfer Water, which would be 15% of 200,000, or 30,000 AFY. The 19,355 AF reduction does not reach this limit. Third, the IID reimbursement obligation per AF cannot exceed \$100. In our example, the per AF reimbursement obligation is the net contract value of the Cover Water, \$500 per AF, minus the then applicable price of Primary Transfer Water under the Agreement, \$400 per AF, or \$100, multiplied by 50%, which equals \$50 per AF. The \$50 per AF amount does not exceed the \$100 per AF limit.

3. The IID's reimbursement obligation, therefore, is $\$50 \times 19,355$ AFY, or \$960,775 per year. The reimbursement obligation would terminate upon a declaration of a normal or surplus condition.

Exhibit D: Shortage Premium

This exhibit describes the procedures to be followed in determining whether a **Shortage Premium**¹ is to be paid by the **Authority** to **IID**, the time during which the premium is to be paid, and the amount of the premium to be paid.

Example of Application of the Shortage Premium

Suppose the following occurred during the period that **IID** is transferring water to the Authority under the Agreement:

- The DWR reported **Critical Years** for the years 2001 and 2002.

- The **Secretary** declared a shortage condition on the Lower Colorado River beginning January 1, 2002, and terminated that declaration on May 15, 2002.

- **An Authority Shortage** was declared in the amount of **13%** on February 10, 2002. The Authority Shortage was increased to 28% on April 5, 2002. The Authority Shortage was reduced to 4% on June 20, 2002, and was terminated on August 1, 2002.

- For the entire period covered in this example, the **Base Contract Price** was **\$260** per AF, and no Price Redetermination had occurred.

Given the above conditions, the Authority would pay Shortage Premiums as follows:

1. For the year 2001, the only Shortage Premium circumstance was the existence of a Critical Year. Therefore, the Shortage Premium for that period would be 5% of \$260 (the Base Contract Price), or \$13 per AF. The total Agreement price would then be \$273 per AF.

¹ Terms in **bold** are defined in § 1.1 of the **Agreement**.

2. Beginning on January 1, 2002, there was a declaration of shortage on the Lower Colorado River. Although this circumstance by itself would yield a Shortage Premium of 25%, because a reported Critical Year was also in existence at the same time, the Shortage Premium would increase to 30%, or \$78 per AF, beginning on January 2, 2002.

3. The Authority had declared an Authority Shortage of 13% beginning on February 10, 2002, rising to 28% on April 5, decreasing to 4% on June 20, and terminating on August 1, 2002. During the time of the 13% shortage, a 15% percent premium would apply but for the fact that a 30% premium was already applicable pursuant to the other circumstances which then existed. Because the greater applicable premium applies, the 30% premium would continue during this period. However, for the period April 5 to June 20, the Authority Shortage is 28%, which, according to the **Shortage Premium Table**, would yield a Shortage Premium of 50%. Because the 50% premium is now the greater premium, it would apply from April 6 to June 20 and that 50% premium would equal \$130 per AF. When the Authority Shortage was reduced to 4% on June 20, the shortage declaration for the Lower Colorado River had by that time been terminated. Therefore, the conditions present on June 20 are the continuing reported Critical Year and the 4% Authority Shortage. Since a 4% Authority Shortage yields no premium as per the Shortage Premium Table, the Critical Year premium of 5% would again apply. The 5% premium would apply from June 21 through the end of the year 2002.

Exhibit E: Price Redetermination

This exhibit explains the methods and calculations necessary to implement the Price Redetermination provisions contained in Article 5 of the **Agreement**.¹ A Price Redetermination uses information from all **Transactions** that satisfy a defined set of **Eligibility Criteria** in order to judge the reasonableness of the price in effect under this Agreement at the date of the Price Redetermination. If there is sufficiently reliable information to conclude that an adjustment in the price is warranted, the Price Redetermination will adjust the price in a specific way. As explained below, the degree of reliance on Price Redetermination increases with the number of **Eligible Transactions**, the more similar the characteristics of the Eligible Transactions are to the characteristics of the **IID Conserved Water** (supply reliability, water quality, and other factors) and the larger the scale of the California water market.

This exhibit is organized as follows: (1) the purpose of Price Redetermination, (2) timing and frequency, (3) the Eligibility Criteria for Transactions, (4) the method used to judge the reasonableness of the price in effect at the date of the Price Redetermination, and (5) the adjustments, if any, to the price as a result of the Price Redetermination. For illustration purposes, sample calculations are provided for a hypothetical Price Redetermination.

1. Purpose of Price Redetermination

The IID and the **Authority** share two common goals for Price Redetermination:

1. Assure that the price in effect under the Agreement reflects a reliable estimate of the market value of the **IID Conserved Water**; and
2. Reduce as much as possible the opportunity for arbitrary decision-making in a Price Redetermination.

Both **Parties** understand, however, that it may be difficult to assess the actual market value of the **IID Conserved Water**.

¹ Terms in **bold** have the same definition as in §

Given the potentially unique attributes of the IID Conserved Water (such as the seniority of the IID's water rights) and the potentially unique terms of the Agreement (such as the large quantity of water being transferred and the long term of the Agreement), there may be few, if any, directly comparable Transactions. Therefore, Price Redetermination must include Transactions that involve water and contract terms that are not directly comparable to the IID Conserved Water and the non-financial terms of the Agreement. At the same time, given the lack of a developed water market in California, there may be too few available Transactions to generate a reliable estimate of the market value of the IID Conserved Water.

Given the common goals and challenges for Price Redetermination, the IID and the Authority recognize that a Price Redetermination will require the exercise of reasonable judgment in making the redetermination calculations. At the same time, and critical to the acceptability to both the IID and the Authority with a Price Redetermination, the IID and the Authority agree that there must be specific rules and guidelines to be followed in every Price Redetermination. To this end, a Price Redetermination involves a formulaic approach for the purpose of limiting the scope of discretion exercised by anyone undertaking the redetermination calculations.

2. Timing and Frequency

The first Price Redetermination may not occur sooner than 10 years **after** the Agreement **Benchmark Date**, provided that two conditions, among others, are also satisfied (see § 5.3(a):

1. There are at least 10 Eligible Transactions; and
2. The annual volume of water projected to be transferred in California over the next 10 years immediately following the Price Redetermination exceeds a defined threshold (see Section 5 below).

For example, if the Agreement Benchmark Date is the year 2000, the first Price Redetermination could not occur earlier than the year 2011, provided that there are at least 10 Eligible Transactions and the defined threshold for the California water market is exceeded. If there are not at least 10 Eligible Transactions until the year 2013 and the annual volume of water transferred from **Qualifying Transactions** in California does not exceed the defined threshold until the year 2015, the first Price Redetermination could not occur earlier than the year 2015 (the

last date at which all of the above conditions for the first Price Redetermination are satisfied, assuming that there are still at least 10 Eligible Transactions in the year 2015).

The timing of subsequent Price Redeterminations will depend on the number of Eligible Transactions used in the previous Price Redetermination. If the previous Price Redetermination was based on 16 or more Eligible Transactions, then the next Price Redetermination could be no sooner than 10 years. If the previous Price Redetermination were based on 15 or fewer Eligible Transactions, then the next Price Redetermination could occur when 20 or more Eligible Transactions become available or 10 years, whichever is earlier.

For example, suppose that the first Price Redetermination occurred in the year 2015. If this Price Redetermination was based on 16 or more Eligible Transactions, then the next Price Redetermination could not be earlier than the year 2026. Alternatively, if the first Price Redetermination was based on 15 or fewer Eligible Transactions, then the next Price Redetermination could be at the year 2026 or when 20 Eligible Transactions become available, whichever is earlier. If 20 Eligible Transactions became available by the year 2021, then the next Price Redetermination could occur that year.²

3. **Eligibility Criteria**

Transactions are eligible for inclusion in a Price Redetermination, provided that they satisfy all of the following criteria:

1. **Information Availability.** In order for a Transaction to be an Eligible Transaction, the Parties must be able to obtain a complete copy of the underlying contract and other information about the Transaction, transferor and transferee sufficient to evaluate the satisfaction of other Eligibility Criteria.
2. **Voluntary Negotiated Transactions.** The Transaction must be the result of voluntary negotiations between a willing transferor and a willing transferee where neither

² Since there are 20 Eligible Transactions in this example, the condition that there be at least 10 Eligible Transactions is automatically satisfied.

party was compelled or coerced into agreeing to the Transaction or to any of the terms or conditions of the Transaction. If a voluntary Transaction has uniform terms and conditions with other Transactions not the result of independent, arms-length bargaining, then that Transaction and all other identical Transactions with a Reference Date in the same **Calendar Year** are to be aggregated and counted as a single Transaction.

3. Geography. The water or water rights that are transferred by the Transaction must be capable of being used for domestic, municipal, industrial or agricultural use within the geographic territory defined as the **Lower Colorado River Basin**.

4. Noncontingent Transaction. All contingencies to the performance by both parties to the Transaction must have been removed before the start of the Price Redetermination.

5. Reference Date. The date that the Transaction became a binding contract between the parties to the Transaction which date shall be no more than 10 years prior to the Agreement Year of the start date of the Price Redetermination, unless the circumstances identified in Section 4 below exist, but in no event longer than 15 years.

6. Transaction Term. A Transaction must have a minimum term for annual water transfers of five years.

7. Minimum Quantity. A Transaction must involve: (A) an average annual transfer quantity of no less than 5,000 AF for the term of the Transaction; (B) a cumulative transfer quantity over the term of the Transaction of no less than 50,000 AF, and (C), a frequency of annual water transfers over the term of the Transaction equal to or greater than 75% of the years of the term (the number of years water is transferred divided by the contract term, rounded to the nearest percent).

8. Feasibility. The **IID** must face no legal, technical or other barrier that would preclude it from participating in the Transaction as a transferor and realizing the full benefit to the transferor of the terms and conditions of the Transaction; or the Authority

must face no legal, technical or other barrier that would preclude it from participating in the Transaction as a transferee and realizing the full benefit to the transferee of the terms and conditions of the Transaction.

9. Water Quality. Transactions involving water the quality of which, when subjected to ordinary and customary treatment in the **MWD** or the Authority service areas, would fall within the controlling federal and state maximum contaminant levels for potable water.

10. Excluded Transactions. Any Transaction involving a transfer under an Adjunct Contract with **MWD** or **CVWD**; any transfer under the **IID/MWD 1988 Agreement**; or any transfer of water conserved from the **All-American Canal** or the **Coachella Canal**.

A. Information Availability. A Price Redetermination involves extensive financial analysis of agreements and comparisons to other Eligible Transactions. Therefore, it is imperative that sufficient information be available about the contract, its implementation, and the water source to make the necessary calculations. At a minimum, a copy of the contract is required. If the terms and conditions are not sufficiently self-evident to assess the Eligibility Criteria of the Transaction, then information about the actual implementation of the agreement and/or the circumstances of the party may prove necessary.

Consider, for example, an agreement that specifies a delivery of 5,000 AF annually for a period of 15 years, but water delivery is conditioned on the water being “surplus” to the needs of the transferor. To meet the minimum quantity cumulative test of 50,000 AF, water must be delivered in at least 10 years. To meet the minimum quantity frequency test of delivering water at least 75% of the years, water must be delivered in at least 12 years.³ Whether or not this contract satisfies the minimum quantity Eligibility Criteria cannot be determined by an examination of the

³ If water were delivered in only 11 years, then the frequency of annual deliveries would be 73.3%, which when rounded to the nearest percent would be **only** 73% of the years. If water were delivered in 12 years, then the frequency of annual deliveries would be **80%**, which exceeds the required 75% minimum frequency of annual deliveries.

face of the contract. Instead, one must examine the actual history of deliveries under the contract to assess how, in fact, the contract has been implemented. Supplemental information about the water use needs of the transferor may also provide information that can be used to project deliveries under the agreement.

B. Voluntary Negotiated Transactions: Transactions fail the Eligibility Criterion for voluntary negotiated Transactions if they do not reflect independent, arms-length bargaining, but instead reflect restrictions originating from legislation, regulatory orders, or other legal actions

The test for voluntarily negotiated terms requires that a series of separate Transactions undertaken by a single entity involving uniform financial terms and other conditions be counted as a single Eligible Transaction. Consider, for example, the 1991 Emergency Drought Water Bank, in which more than 300 individuals and agricultural agencies sold water to the Water Bank. The price and other conditions were not individually negotiated between the sellers and the Bank. Instead, the Bank posted a take-it or leave-it offer to any and all potential participants. Assuming that the Water Bank satisfied the other Eligibility Criteria, its entire acquisition activity within a Calendar Year would be included as a single Eligible Transaction.

C. Geography: This Eligibility Criterion allows Transactions strictly outside the Lower Colorado River Basin to be included in a Price Redetermination, provided that the water transferred is capable of being used in the Lower Colorado River Basin. For example, if a Fresno County Central Valley Project contractor transferred water to a city in Santa Clara County, this Transaction would be Eligible if the water transfer is capable of being used in the Lower Colorado River Basin.

D. Noncontingent Transaction: All contingencies to the performance by both parties must have been removed before the date of the Price Redetermination. The purpose is to assure that a Price Redetermination only includes information from Transactions that are either actually moving water, or must not overcome any contingencies before water can be moved. Otherwise, incomplete Transactions which may ultimately fail to move any water could be included. Pricing

terms included in failed Transactions do not provide reliable information about the market value of IID Conserved Water.

E. Vintage: A Price Redetermination should be based on Transactions that provide useful information about the value of transferred water under market conditions prevailing at the time of the redetermination. Given the twin difficulties of establishing the market value of IID Conserved Water (the lack of strictly comparable Transactions and the lack of a developed water market), the IID and the Authority agree to include Transactions that would otherwise meet the Eligibility Criteria even if they were not negotiated as of the date of the Price Redetermination. By including otherwise Eligible Transactions negotiated at least up to 10 years before a Price Redetermination, the potential source of information is expanded. As described in Section 4(E) below, under certain circumstances Eligible Transactions up to 15 years before the Price Redetermination may be utilized.

An Eligible Transaction must involve financial terms that are the outcome of recent voluntary negotiations. Since the **Vintage** of an Eligible Transaction may also not exceed between 10 to 15 years, this means that the Price Redetermination will only include Transactions where all contingencies have been removed within the time frame of the allowed Vintages. Therefore, whether a renewal of an agreement would be included in a Price Redetermination will depend on whether the pricing and other financial terms were negotiated at the time of renewal, or within the time frame of the allowed Vintages.

For example, suppose that a transferee and a transferor negotiated a contract for initial and additional deliveries and an initial term and renewal term identical to those in the Agreement. Provided that the agreement satisfies the other Eligibility Criteria, it would be eligible for inclusion in a Price Redetermination held sufficiently close to the removal of contingencies that the Vintage of that agreement fell within the time frame of allowed Vintages. However, if additional deliveries were made at a later time, the additional deliveries are not eligible for inclusion because the financial terms were not independently negotiated at the time the additional deliveries became available. Similarly, the renewal of the agreement after the initial term would not be eligible

because the financial terms were not independently negotiated at the time of the renewal. In contrast, an extension of the agreement beyond the renewal term would be an Eligible Transaction, because the financial terms would be independently negotiated at that time.

F. Transaction Term: An Eligible Transaction must have a minimum term of at least *five* years. Shorter term Transactions are not deemed sufficiently comparable to provide useful information about the value of water available under a long-term agreement.

G. Minimum Quantity: Three separate Eligibility Criteria concerning delivery quantity must be satisfied: (i) annual deliveries must average no less than 5,000 AF over the full Transaction term, (ii) delivery must occur in no less than 75% of the years over the full Transaction term, and (iii) the cumulative deliveries over the full Transaction term must be no less than 50,000 AF. Transactions involving smaller quantities and/or with less frequent deliveries are not deemed sufficiently comparable to provide useful information about the value of IID Conserved Water available under the Agreement.

Just like the example concerning the criterion for information availability, an assessment of whether a Transaction satisfies the quantity criteria starts with an examination of the face of the contract. If the contract includes conditions on deliveries which do not clearly indicate that the Eligibility Criteria will be satisfied, then the analysis must turn to information extrinsic to the contract, such as the actual history of deliveries under the contract and supplemental materials.

H. Feasibility: For a Transaction to provide useful information about the market value of IID Conserved Water, it must be feasible for the IID as a transferor or the Authority as a transferee to have been a participant in the Transaction. Otherwise, the Transaction does not provide any useful information about the market value alternatives available to either the IID or the Authority. For example, until interstate marketing of water becomes a reality, Transactions in the Lower Colorado River Basin states other than California are not marketing alternatives for the IID or the Authority. If the BOR adopts regulations allowing interstate marketing, then Transactions in the other states could potentially be Eligible Transactions for inclusion in a Price Redetermination.

The feasibility test involves many factors: legal, technical, and operational. Even if the Authority could have legally entered into an agreement with a transferor in Northern California, for example, conveying the water to the **Conveyance Path Terminus** must face no technical, operational, or other barriers. Similarly, even if the IID could have legally entered into an agreement with a transferee in Arizona, conveying the water must also be feasible. Even if legally feasible, critical practical questions must also be answered. For example, is third party cooperation needed? What are the necessary wheeling and/or exchange agreements? Do the relevant entities have a history of entering into such agreements? Do they even have available capacity to permit such agreements?

4. **Judging the Reasonableness of the Existing Price**

A Price Redetermination addresses the **fundamental** question: how does the price in effect under the Agreement as of the date of the redetermination compare with a reasonable estimate of the market value of IID Conserved Water? As mentioned above, the potentially unique attributes of the IID Conserved Water and the Agreement may mean that there will be only a few somewhat comparable Transactions. While Transactions that are not at all comparable will not be considered, many, if not virtually all, Eligible Transactions will involve water and other terms that differ in a material way.

A Price Redetermination uses information about the value of water evidenced from the Eligible Transactions to provide an estimate of the market value of IID Conserved Water. If there is sufficiently reliable information to conclude that an adjustment in the Agreement price in effect is warranted, then the Price Redetermination will result in an adjustment to the price. There are two questions that must be answered in order to implement this method of Price Redetermination:

1. How to estimate the market value of IID Conserved Water from the valuation of Eligible Transactions; and
2. How to decide whether the estimate of the market value of IID Conserved Water based on the valuation of Eligible Transactions is sufficiently reliable to warrant an adjustment to the price.

These questions require inferences based on the data available from Eligible Transactions; thus, a Price Redetermination relies upon the following statistical analysis:

1. Estimate the market value of IID Conserved Water by determination of a statistically valid relation between the market value of water and Transaction characteristics, including supply reliability, water quality, Vintage, and other characteristics requested by a Party at the time of a Price Redetermination; and

2. Adjust the Price under the Agreement if, as of the date of the Price Redetermination, for the remaining term of the Agreement, the value of the Agreement based on the in-effect price is not consistent with the estimate of the market value of IID Conserved Water.

To assure that the scope for arbitrary decision-making in a Price Redetermination is limited as much as possible, the IID and the Authority agree that the following procedures must be used:

A. Step 1:

- Calculate the per AF present value of the payments for the quantity of transferred water for each Eligible Transaction, adjusted for (i) the differential transportation costs of the Authority conveying the water available under the Agreement versus the costs the Authority would incur from conveying the water available under the Eligible Transaction, or (ii) for the differential transportation costs of the transferee for conveying the water if acquired from the IID versus the costs of the transferee for conveying the water available under the Eligible Transaction; depending on the feasibility test for the Authority as a transferee or the IID as a transferor, respectively.

The calculation of the per AF present value of contract payments, adjusted for differential transportation costs proceeds as follows:

1. Calculate the present value of the contract payments; and then
2. Translate the present value of the contract payments into a contract value per AF; and then

3. Calculate the location adjustment per AF to account for differential transportation costs incurred if the water available under an Eligible Transaction would have been delivered under the Agreement.

With the above information, compute the Net Contract Value per AF as follows:

$$\text{Net Contract Value per AF} = \text{Contract Value per AF} - \text{Location Adjustment per AF}$$

Each step of the calculation is explained below.

Calculation of the Present Value of the Contract Payment: The present value calculation starts with projections of payments based on the terms of the contract and assumed costs other than transportation. If future payments are based on future prices, costs, or hydrologic conditions, the projections are based on an analyses of the relevant historical period most reasonably representative of the conditions expected to prevail in the future. In the calculation of present value, the Authority's average cost of capital as of the Reference Date is used as the discount rate.

The required calculations are illustrated by the following hypothetical example. Suppose an Eligible Transaction had a Reference Date seven years before the date of the Price Redetermination and the Transaction had the following terms:

- Term: 22 years
- Annual quantity: 10,000 AF
- Delivery Frequency: 8 out of 10 years
- Price: \$175/AF
- Payment Terms: An up front payment equal to 50% of the cumulative contract payments, payable in a lump sum two years before the start date of deliveries; an annual payment of the price per AF less \$87.50 per AF as credit for the up-front payment; and an annual adjustment to the annual payments equal to the percentage change in the **CPI**.
- Other Costs to Buyer: \$50 per AF, subject to an annual adjustment equal to the percentage change in the CPI.

The Vintage of this Transaction is seven years; thus actual data would be available for the payments and deliveries made through year 7 of the agreement. Projections would be made for the payments over the remaining term of the agreement.

Table E. 1 shows the actual and projected contract payments. The \$14 million up-front payment and payments for the initial five years of deliveries would be actual data available at the time of the Price Redetermination. Note that the first five years of deliveries conforms with the assumed contractual provision that 10,000 AF is delivered in 80% of the years. The example assumes that the CPI grew at an annual rate of 2.5%. Therefore, the delivery price started at \$87.50 per AF (the \$175 per AF contract price less the \$87.50 per AF credit for the up-front payment), subject to an annual escalation of 2.5%.

To complete the financial analysis, projections would be made of future deliveries and prices. Since the contract calls for the delivery of 10,000 AF in 80% of the years, the expected annual delivery for the remaining years of the contract would be 8,000 AF (see column 2 of Table E. 1). Assuming that the most recent five years of experience for inflation were representative of the conditions reasonably expected to prevail in the future, the delivery price is projected to continue its annual increase at a rate of 2.5%. Therefore, the delivery price is projected to be \$99 per AF in year 8, and steadily increase thereafter (see column 4 of Table E. 1). Total projected payments are expected to be \$791,000 in year 8, increasing steadily thereafter (see column 6 of Table E. 1).⁴ If the buyer's long-term cost of capital as of the Reference Date were 5.5%, the present value of contract payments for this Eligible Transaction is \$27,744,773 (see Table E. 1).

Translation of the Present Value of Contract Payments into Contract Value Per AF: The IID and the Authority anticipate a potentially diverse set of contractual arrangements

⁴ Expected delivery payments in year 8 (the first year of the projection) are less than actual delivery payments in year 7, despite the escalation in the contract price. The reason involves the fact that this Eligible Transaction does not deliver water every year, but only in 80% of the years. While the financial valuation can use data for historical deliveries, the projection of future deliveries must take into account the likelihood of non-delivery.

may emerge with the development of water markets in the Lower Colorado River Basin. Therefore, a benchmark valuation is needed to translate the valuation of contracts with diverse terms into a meaningful estimate of the annual per AF value of water. The Contract Value per AF yields a contract price that, when escalated at the rate of inflation and if paid at the time of water delivery, yields the same present value of contract payments as the present value of the financial payments made under the Eligible Transaction. The formula for the Contract Value per AF is:

$$\text{Contract Value per AF} = \frac{\text{Present Value of Projected Contract Payments of Eligible Transaction}}{\text{Present Value of Deliveries}}$$

For the calculation of the present value of deliveries; the Authority's average cost of capital, adjusted for inflation is used.⁵

As illustrated by the application of this formula to the hypothetical Eligible Transaction, the contract value per AF, as defined above, provides a financially meaningful benchmark for translating the contract payment. The Contract Value per AF equals \$244.74 per AF (\$27,744,773 ÷ 113,364 AF) -- see Table E. 1. The Contract Value per AF (\$244.74 per AF) exceeds the face price in the contract (\$175 per AF) plus the assumed costs (\$50 per AF), because the up-front payment of \$14 million accelerates payments two years before the start of water delivery. (In fact, the up-front payment accounts for about half the present value of contract payments and assumed costs.) Column 8 of Table E. 1 shows the contract payments if a price were paid, subject to CPI escalation, at the time water were delivered starting at the Contract Value per AF of \$244.74 per AF. Note that the present value of this payment stream equals \$27,744,773, the same present value of the stream of payments and assumed costs under the Eligible Transaction.

⁵ The formula of the adjustment is: $i = (ltcc - \pi) \div (1 + \pi)$, where i = the Authority's average cost of capital adjusted for inflation, $ltcc$ = the Authority's average cost of capital, and π = the inflation rate measured by the most recent 10-year average of the actual annual rate of inflation.

Calculation of Location Adjustment per AF. For an Eligible Transaction in which it is feasible for the Authority to participate as a transferee, the location adjustment per AF equals the difference between the transportation costs from conveying the IID Conserved Water under the Agreement to the Conveyance Path Terminus for the term of the Eligible Transaction and the transportation costs from conveying the water available from an Eligible Transaction to the Conveyance Path Terminus.

Location Adjustment per AF = Transportation Cost per AF for IID Conserved Water available under the Agreement - Transportation Cost per AF for water available under Eligible Transaction

The calculation of the transportation costs for water conveyed under either the Agreement or the Eligible Transaction follows the same methodology:

1. *Project Transportation Costs for the Term That Water Is Available Under the Eligible Transaction.*
2. *Calculate the Present Value of Transportation Costs.* Use the projection of future transportation costs and an interest rate equal to the Authority's average cost of capital as of the Reference Date of the Eligible Transaction
3. *Calculate the Transportation Costs per AF.* The present value of transportation costs divided by the present value of water delivered to the Conveyance Path Terminus. The discount rate equals the Authority's average cost of capital adjusted for inflation. The same method as used to translate the present value of contract payments for an Eligible Transaction into the Contract Value per AF is used to calculate the transportation costs per AF.

For the transportation of Conserved Water under the Agreement, the projections of future transportation costs should be based on the actual terms, conditions, and agreements governing the transportation of that water. For the transportation of water available under an Eligible Transaction, the analysis is more problematic because there may be no transportation arrangements in place to convey the water to the Conveyance Path Terminus. In such circumstance an analysis of the necessary steps to transfer the water both physical and contractual (i.e., by exchange) must be analyzed. The potential for acquisition of necessary capacity in transportation facilities must be determined, as well as the cost of such acquisition. Where the cooperation of third parties is required, but not susceptible to legal compulsion, the price of such

cooperation must also be determined. Historical conduct over the most relevant time period is often the best guide for such analysis, and investigation of all reasonable data must be pursued. Ultimately, judgment must be brought to bear on the question of transportation feasibility and the lawful cost of cooperation or forced wheeling; where there are multiple alternatives that fully satisfy the feasibility and related conditions, the least cost alternative should be utilized.

To illustrate the calculation of the location adjustment, assume that the transportation costs as of the Reference Date of the Eligible Transaction were calculated to be the following:

1. for IID Conserved Water available under the Agreement: \$80 per AF; and
2. for water available under the Eligible Transaction: \$120 per AF.

The location adjustment would be **-\$40** per AF calculated as \$80 per AF minus \$120 per AF.

For an Eligible Transaction in which it is feasible for the IID to participate as a transferor, the location adjustment per AF equals the difference between the cost of conveying the water if acquired from the IID to the transferee of the Eligible Transaction and the cost of the transferee for conveying the water available under the Eligible Transaction. The calculation of these transportation costs uses the methodology described above.

To illustrate the calculation of the location adjustment, assume that the transportation costs as of the Reference Date of the Eligible Transaction were calculated to be the following:

1. for IID Conserved Water available to the transferee: \$80 per AF; and
2. for water available under the Eligible Transaction: \$120 per AF.

The location adjustment would be **-\$40** per AF calculated as \$80 per AF minus \$120 per AF.

Calculation of Net Contract Value/AF. The Net Contract Value per AF for an Eligible Transaction is defined as follows:

$\text{Net Contract Value per AF} = \text{Contract Value per AF} - \text{Location Adjustment per AF}$

For either hypothetical Eligible Transaction, the Net Contract Value = \$284.74 per AF, where the Contract Value per AF = \$244.74 per AF and Location Adjustment = -\$40 per AF.

B. Step 2: Calculate the Transaction Characteristics for each Eligible Transaction

The IID and the Authority agree that the Net Contract Value per AF from a sample of Eligible Transactions must be adjusted to take into account differences between the Agreement and Eligible Transactions. Transaction characteristics are traits of water sources and contract terms that have a material impact on the market value of the water transferred under an Eligible Transaction. The Parties agree that, at a minimum, a Price Redetermination should take into account the following characteristics: supply reliability, **TDS** water quality and Vintage. If there is sufficient information available from the set of Eligible Transactions, adjustments for other Transactions characteristics can be requested by a Party and undertaken. Such other characteristics may include, but are not limited to, measures of water quality other than TDS, quantity, term, or the type of parties involved in an Eligible Transaction. See Step 3 in this section for a discussion of the protocol to assess whether any other characteristics should be included in a Price Redetermination.

Supply Reliability: For the purpose of a Price Redetermination, “Supply Reliability” is defined as follows: the expected yield per AF of contractual commitment based on (i) the priority of the underlying water right of the transaction, (ii) hydrologic conditions in any relevant river system or groundwater basin, and (iii) any non-hydrologic factors that affect the availability of water under the Eligible Transaction, including terms of the contract.

TDS Water Quality: As of the Reference Date of the Eligible Transaction, the five-year running average of the TDS of water available to the transferee.

Vintage: The difference in years between the year of the Price Redetermination and the year of the Reference Date of the Eligible Transaction, The Vintage is seven years for the hypothetical Eligible Transaction analyzed in Table E. 1.

C. Step 3: Identify statistical & valid relation between Net Contract Value Per AF; of an Eligible Transaction and the Transaction Characteristics

With the completion of Step 1 and Step 2, data has been collected and calculated for the Net Contract Value per AF and the Transaction characteristics for each Eligible Transaction. See Table E.2 for hypothetical sample data for Eligible Transactions. (The purpose of the example is to illustrate the steps of the Price Redetermination calculation. The example does not represent the expectations of either Party about the likely outcome of an actual Price Redetermination.)

To discover how the market value of water (as measured by the Net Contract Value per AF) varies with Transaction characteristics, a Price Redetermination would involve the following statistical study:

First, specify the basic regression model to estimate the relation between Net Contract Value per AF and the three basic Transaction characteristics: supply reliability, TDS water quality, and Vintage. The form of the equation to be estimated is the following:

$$\ln(\text{NCV}_i) = \alpha_0 + \alpha_1 \times \ln(\text{SR}_i) + \alpha_2 \times \ln(\text{TDS}_i) + \alpha_3 \times \text{Vintage}_i + \varepsilon_i$$

where,

$\ln(\text{NCV}_i)$ = natural logarithm of Net Contract Value per AF for Transaction "i"

$\ln(\text{SR}_i)$ = natural logarithm of calculated supply reliability for Transaction "i"

$\ln(\text{TDS}_i)$ = natural logarithm of TDS water quality for Transaction "i"

Vintage_i = Vintage of Transaction "i"

ε_i = difference between the actual value and the model's predicted value of the natural logarithm of Net Contract Value per AF for transaction "i" ("residual")

The values for the parameters ($\alpha_0, \alpha_1, \alpha_2, \alpha_3$) and the standard deviation of the residual (" σ ") are estimated by the regression method commonly known as "linear regression" or

“ordinary least squares. ” Linear regression analysis is one of the most widely used methods of statistical techniques in the sciences and social sciences.⁶

Second, estimate the basic regression model with the data from the Eligible Transactions. The estimates for the sample data in Table E.2 are:

Findings of Basic Regression Study				
<i>Parameter</i>	<i>Coefficient</i>	<i>Standard Deviation</i>	<i>T-statistic</i>	<i>P-Value</i>
Constant	9.52	1.66	5.73	4.9E-06
Supply Reliability	0.76	0.19	4.08	3.8E-04
TDS Water Quality	-0.55	0.27	-2.04	5.2E-02
Vintage	-0.06	.02	-3.81	7.6E-04
$R^2 = .62, \sigma = .19$				

- R^2 : measures the proportion of the variation in the Net Contract Value per AF of the sample Eligible Transactions that can be explained by the Transaction characteristics supply reliability, TDS water quality, and Vintage. In this example, 62% of the variation is explained by the variation in the Transaction characteristics and 38% of the variation is unexplained by the variation in the Transaction characteristics
- σ = estimated standard error of the residual
- *Coefficient*: the estimated value for the respective parameter
- *Standard Deviation*: a measure of the variability in the estimated value of a parameter

⁶ For discussion of the linear regression method , see the following references:
Mood, A.F. *Introduction to the Theory of Statistics* (McGraw-Mill, 1950)
Scheffé, Henry *The Analysis of Variance* (Wiley 1959, Chapter 10)
Draper and Smith *Applied Regression Analysis* (Wiley 1966, Chapter 6)
Rao, C Radhakrishna *Linear Statistical Inference and Its Applications* (Wiley 1973, Chapter 4)
Montgomery and Peck *Introduction to Linear Regression Analysis* (Wiley, 1982, Chapter 3).

- *T-statistic*: a test statistic to determine whether the estimated value is significantly different **from** zero
- *P-Value*: the probability that a coefficient would equal its estimated value if it were truly zero

In this example, the estimated impact of supply reliability, TDS water quality, and Vintage are all statistically and significantly different from zero. The interpretation of the findings are as follows:

- *Supply Reliability*: A 10% increase in supply reliability increases the expected Net Contract Value per AF by 7.6%. The probability that this impact would be estimated if supply reliability had no impact on Net Contract Value per AF is less than 0.04%.
- *TDS Water Quality*: A 10% increase in the TDS of water decreases the expected Net Contract Value per AF by 5.5%. The probability that this impact would be estimated if TDS water quality had no impact on Net Contract Value per AF is 52%.
- *Vintage*: Each additional year of contract Vintage reduces Net Contract Value per AF by 6%. The probability that this impact would be estimated if Net Contract Value per AF were the same for all vintages is about 0.08%.

Under the sample Eligible Transaction data, there is strong evidence that the Net Contract Value per AF of an Eligible Transaction increases with supply reliability, improved TDS water quality, and the closer the Reference Date is to the date of the Price Redetermination.

Third, consider an alternative regression model that expands the list of Transaction characteristics to include any other characteristic suggested by either Party, provided that the Party suggesting a characteristic supplies the necessary data to measure the Transaction characteristic. The Price Redetermination will include the additional Transaction characteristic if both of the following conditions are satisfied:

1. The number of Eligible Transactions exceed the total number of included Transaction characteristics in any statistical model by at least seven ; and
2. The additional Transaction characteristic (a) has the direction of impact stated by the Party at the time it suggested inclusion of the characteristic, and (b) the characteristic's estimated coefficient is statistically different from zero at a level of statistical significance of at least 10% according to a one-tailed test.

The Party not suggesting the characteristic has the right to challenge the validity of the data submitted, provided that it supply alternative data to measure the proposed Transaction characteristic.

Suppose that each Party suggests a different additional Transaction characteristic, each satisfies the two conditions for inclusion, but that the number of Eligible Transactions limits the inclusion to only one of the suggested additional characteristics. An Agreement Valuation Band⁷ is calculated in the alternative, first including one of the suggested additional Transaction characteristics and then the other. The one that produces the narrowest Agreement Valuation Band is accepted for inclusion.

Fourth, select the final regression model. The Transactions characteristics include supply reliability, TDS water quality, Vintage, and any other Transaction characteristics that satisfy the required inclusion conditions. The validity of the final regression model should be verified.⁸ This final regression model is deemed the statistically valid relation between Net Contract Value per AF of an Eligible Transaction and the Transaction characteristics

D. Step 4: Calculate Agreement Valuation Band based on the statistically valid relation between Net Contract Value per AF of an Eligible Transaction and Transaction Characteristics

The final regression model provides the basis for answering the two basic questions of a Price Redetermination:

1. How does one estimate the market value of IID Conserved Water from the valuations of Eligible Transactions; and
2. How does one decide whether the estimate of the market value of IID Conserved Water based on the valuations of Eligible Transactions is

⁷ The Agreement Valuation Band is discussed in D below.

⁸ For general discussion of issues and proposed solutions, see Scheffe (1959), Chapter 10 (“The Effects of Departures from the Underlying Assumptions”), Draper and Smith (1966), Chapter 6 (“Selecting the Best Regression Equation”), and Rao (1973), Chapter 4g (“The Theory and Applications of Statistic Regression”).

sufficiently reliable to warrant an adjustment to the price in effect under the Agreement?

The first question is answered by calculating the expected predicted Net Contract Value per AF of the Agreement. The second question is answered by calculating a “prediction value interval.” Each calculation is described below.

The calculation of the expected predicted Net Contract Value per AF for IID Conserved Water uses the estimated parameters from the final regression model and the value of the Transaction characteristics for the Agreement, evaluated as of the date of the Price Redetermination.⁹ The Agreement’s Transaction characteristics are measured by the same methods used to measure the Transaction characteristics of Eligible Transactions. For example, if the IID's Supply Reliability were .99 and the TDS water quality were 600, then the expected predicted Net Contract Value per AF of the IID's water is \$407 per AF,¹⁰ or \$121 per AF above the \$286 per AF average Net Control Value per AF of the sample of Eligible Transactions. In this example, the majority of this difference reflects the adjustment for the Vintage of Eligible Transactions (see below):¹¹

⁹ In terms of the parameters of the basic regression model, the formula for the expected predicted value for IID Conserved Water is:

$$EP(NCV_{\text{IID}}) = e^{[\alpha_0 + \alpha_1 \times \ln(SR_{\text{IID}}) + \alpha_2 \times \ln(TDS_{\text{IID}})]}$$

where $EP(NCV_{\text{IID}})$ = expected predicted Net Contract Value per AF for IID Conserved Water, SR_{IID} = the value of the reliability index for IID Conserved Water, and TDS_{IID} = the TDS of the water the Authority receives under the Agreement. Since the prediction is as of the date of the Price Redetermination, Vintage is set to zero. Using the estimated values for the parameters estimated with the sample of data for hypothetical transactions, the formula becomes:

$$EP(NCV_{\text{IID}}) = e^{[9.52 + 0.76 \times \ln(SR_{\text{IID}}) - 0.55 \times \ln(TDS_{\text{IID}})]}$$

¹⁰ Setting $SR_{\text{IID}} = .99$ and $TDS_{\text{IID}} = 600$ in the formula in the previous footnote, yields

$$EP(NCV_{\text{IID}}) = e^{[9.52 + 0.76 \times \ln(.99) - 0.55 \times \ln(600)]} = \$407 \text{ per AF}$$

¹¹ Recall that Net Contract Value per AF was estimated to increase by 6% annually. Since the average Vintage of Eligible Transactions was five years, Net Contract Value per AF, at the date of the Price Redetermination, would be 33.8% higher for the same supply reliability and TDS water quality. That is, Net Contract Value per AF for the Eligible Transaction, as of the market conditions prevailing at the time of the Price Redetermination, would be \$383 per AF. The remaining \$24 per AF difference between the expected predicted Net Contract Value per AF for the IID Conserved Water reflects

<i>Adjustment</i>	<i>\$ per AF</i>
Vintage	97
Reliability/Water Quality	24
Total	

IID and the Authority understand that no analysis of Eligible Transactions can predict the Net Contract Value per AF for IID Conserved Water with absolute certainty. There are two sources of prediction error. First, the Net Contract Value per AF of an Eligible Transaction is not fully explained by the Transaction characteristics.¹² The greater the number of Eligible Transactions, the smaller the potential magnitude of this prediction error. Second, reflecting the fact that Eligible Transactions are not strictly comparable to the Agreement, the IID's Transaction characteristics may differ from the Transaction characteristics of the sample of Eligible Transactions. The smaller the difference between the IID's Transaction characteristics and the Transaction characteristics of Eligible Transactions, the smaller the potential magnitude of this prediction error.

Figure E. 1 shows the frequency distribution of the predictions for the IID's Net Contract Value per AF, as of the Price Redetermination date, for the hypothetical data.¹³ The frequency distribution of predictions becomes more closely bunched around the expected predicted value, (a) the greater the proportion of the variation in the Net Contract Value per AF of Eligible Transactions is explained by the Transaction characteristics, and (b) the closer the IID's Transaction characteristics are to the Transaction characteristics of the Eligible Transactions

The IID and the Authority agree to use a "prediction interval" to decide whether the Agreement price, as of the time of a Price Redetermination, is consistent with the estimated

the offsetting adjustments for the IID's higher supply reliability (.99 for the IID versus an average of .757 for the Eligible Transactions) and the higher TDS of water quality available to the Authority (600 versus an average of 501 for the Eligible Transactions).

¹² In the hypothetical example, recall that about 38% of the differences in Net Contract Value per AF among Eligible Transactions were unrelated to the Transaction characteristics.

¹³ The frequency distribution measures the probability that the true IID Net Contract Value per AF lies within a specified interval. For example, the probability that the true IID Net Contract Value per AF lies +/- \$10 per AF of \$407 per AF is about 9%.

Net Contract Value per AF of the IID Conserved Water. A prediction interval is based on the final regression model and the IID's values for the Transaction characteristics.¹⁴ The Parties have agreed that an 80% prediction interval be utilized. That is, 80% of the frequency distribution should fall outside the prediction interval and 20% should fall inside. Figure E. 1 shows an "Agreement Valuation Band" defined by the 80% prediction interval.¹⁵ This Band includes 20% of the frequency distribution of the predicted IID Net Contract Value per AF. If the value of the agreement price falls within this Band, the existing price is deemed to be consistent with the market valuation of IID Conserved Water. If the value of the existing price falls outside this Band, the price is deemed inconsistent with the market valuation, and the Price Redetermination would adjust the price. For the hypothetical example, the lower and the upper limits of the Agreement Valuation Band, respectively, are \$384 per AF and \$430 per AF (see Figure E. 1). That is, if the value of the price falls within +/- \$23 per AF of the expected predicted IID Net

14 The formula for the prediction interval can be found in numerous statistics books. The formula for a 100(1 - α) percent prediction interval is:

$$UL = EP(\ln NCV_{IID}) + t_{\alpha/2, n-p} \times K \geq EP(\ln NCV_{IID}) \geq EP(\ln NCV_{IID}) - t_{\alpha/2, n-p} \times K = LL$$

where, $EP(\ln NCV_{IID})$ = expected predicted value of the natural logarithm of IID's Contract Net Value per AF

$t_{\alpha/2, n-p}$ is the value of the Student's T-statistic for significance level α (two-tailed test) with "n-p" degrees of freedom

α = significance level (defined as the proportion of the frequency distribution outside the prediction interval)

n = number of Eligible Transactions

p = number of Transaction characteristics + 1

$$K = \sqrt{\sigma^2 [1 + \mathbf{x}'_o (\mathbf{X}'\mathbf{X})^{-1} \mathbf{x}_o]}$$

\mathbf{x}_o = the values for IID's Transactions characteristics (including the constant term)

\mathbf{X} = the data matrix of Transaction characteristics used to calculate the regression (including the constant term)

The lower limit of the Agreement Valuation Band = e^{LL} The upper limit of the Agreement Valuation Band = e^{UL} .

15 The Agreement Valuation Band is calculated by substituting $\alpha = .8$ into the formula in the previous footnote, the value of the IID's Transaction characteristics, and the data matrix for the Eligible Transactions.

Contract Value per AF, the Price Redetermination would conclude that the existing price is consistent with the market valuation of IID Conserved Water.

E. Step 5: Entertain Inclusion of Transactions with Vintages Greater Than Ten Years

The IID and the Authority understand that the width of the Agreement Valuation Band reflects the reliability of information available from the study of the Eligible Transactions. Reflecting their common goal of basing a Price Redetermination on the most reliable information about the market value of IID water, the Parties agree that the Price Redetermination should use as much available information as possible to narrow the range of the Agreement Valuation Band. To this end, the Parties agree to expand the set of Eligible Transactions to include longer Vintages up to 15 years as of the date of the Price Redetermination, provided that:

1. The Transactions with longer Vintages satisfy all other Eligibility Criteria; and
2. No Transactions with a contract effective date before the year 2000 are included.

Using the data from the expanded set of Eligible Transactions, reestimate the final regression model and recalculate the Agreement Valuation Band. The Price Redetermination shall be based on this recalculated Agreement Valuation Band, provided that both of the following conditions are satisfied:

1. The expected predicted IID Net Contract Value per AF from the initial set of Eligible Transactions cannot differ by more than 5% from the expected predicted IID Net Contract Value per AF from the expanded set of Eligible Transactions; and
2. The width of the recalculated Agreement Valuation Band must be smaller than the width of the initial Agreement Valuation Band.

If one or both of the above conditions are not satisfied, then the Price Redetermination shall be based on the Agreement Valuation Band calculated with only the initial set of Eligible Transactions.

F. Step 6: Determine Whether Adjustment To Price Warranted

This determination starts with the calculation of the Net Contract Value per AF for the price in effect under the Agreement as of the date of the Price Redetermination for the remaining term of the Agreement. The same procedures and methods used to calculate the Net Contract Value per AF of the Eligible Transactions is used. The location adjustment shall be zero. Unless the conditions of renewal are satisfied as of the date of the Price Redetermination, the projections shall assume that transfer of IID Conserved Water cease at the end of the Initial Term.

The final step involves the calculation of a Price Redetermination Value. If the Net Contract Value per AF for the existing price in effect under the Agreement falls outside the Agreement Valuation Band, the Price Redetermination Value is set to:

1. The lower limit of the Band if the Net Contract Value per AF falls below the Band; or
2. The upper limit of the Band if the Net Contract Value per AF exceeds the Band.

If the Net Contract Value per AF falls within the Agreement Valuation Band, no adjustment in the price is made.

The calculation of the Price Redetermination Value is illustrated by the use of the Agreement Valuation Band estimated with the hypothetical data. The Band's lower and upper limits, respectively, are \$384 per AF and \$430 per AF, or about +/- \$23 per AF of the estimated predicted value of \$407 per AF. The Price Redetermination Value would be:

\$384 per AF: if the existing price produced a Net Contract Value per AF less than \$384 per AF; or \$430 per AF if the existing price produced a Net Contract Value per AF greater than \$430 per AF.

5. Adjustment to Agreement Price

If the Price Redetermination concludes that an adjustment is warranted to the existing price, the new price under the Agreement shall be calculated as follows:

$\begin{aligned} \text{New Price Schedule} &= \omega \times \text{Price Redetermination Value} \\ &+ (1-\omega) \times \text{Agreement Price before Price Redetermination} \end{aligned}$

where ω = the Weight of the Price Redetermination Value as set forth in the table below. Since the Price Redetermination Value is based on a contract valuation price subject to inflation escalation, the Price Redetermination Value would be subject to annual escalation based on the annual growth in the CPI

CALIFORNIA WATER MARKET SCALE

<i>Projected Average Annual Transfers from Qualifying Transactions¹⁶</i>	<i>Weight of Price Redetermination Value</i>
0.24-0.35 MAF	50%
0.36-0.47 MAF	53%
0.48-0.59 MAF	60%
0.60-0.71 MAF	67%
0.72-0.83 MAF	73%
0.84-0.95 MAF	80%
0.96-1.07 MAF	87%
1.08-1.20 MAF	93%
> 1.20 MAF	100%

For example, suppose that the hypothetical Price Redetermination described above was the first one during the Initial Term of the Agreement. Suppose that the Price Redetermination

¹⁶ For definition, see § 5.1(e). The calculation of average annual transfers shall be rounded to the nearest .01 of 1 million AF.

Value was determined to be \$384 per AF and the projected average annual deliveries of Qualifying Transactions for the next 10 years after the Price Redetermination, rounded to the nearest one-hundredth of one million AF, was 0.70 million AF. The weight " ω " for the Price Redetermination Value is 67%. The New **Base Contract Price** formula is:¹⁷

$$\text{New Base Contract Price} = \$257.28 \text{ per AF (subject to CPI escalation)} + 33\% \times [(\text{Full MWD Water Rate} - \text{Base Wheeling Rate}) + 50\% \times (\text{Base Wheeling Rate} - \text{Actual Wheeling Rate})]$$

In years when the Authority pays a Shortage Premium, the Premium paid equals $(1-\omega)$, or 33% of the amount specified in the definition of the Shortage Premium.

6. Conclusion

The IID and the Authority understand that a Price Redetermination involves an extensive analysis of transactions. The procedures and calculations described above are required to provide both Parties with the comfort that a Price Redetermination will meet their common goals

¹⁷ **\$257.28** per AF = $67\% \times \$384$ per AF (rounded to the nearest penny)

Calculation of Present Value of Contract Payments for Hypothetical Eligible Transaction

Agreement Year	Quantity	Upfront Payment	Delivery Price	Delivery Payments	Assumed Costs (6)	Total Payments (7)	Contract Value/AF Payments (8)
(1)	(2)	(3)	(4)	(5)			
1	0	\$14,000,000			\$0	\$14,000,000	\$0
2	0				\$0	\$0	\$0
3	10,000		\$87.50	\$875,000	\$500,000	\$1,375,000	\$2,635,581
4	10,000		\$89.69	\$896,875	\$512,500	\$1,409,375	\$2,701,471
5	10,000		\$91.93	\$919,297	\$525,313	\$1,444,609	\$2,769,007
6	0		\$94.23	\$0	\$0	\$0	\$0
7	10,000		\$96.58	\$965,836	\$551,906	\$1,517,743	\$2,909,188
8	8,000		\$99.00	\$791,986	\$452,563	\$1,244,549	\$2,385,534
9	8,000		\$101.47	\$811,785	\$463,877	\$1,275,663	\$2,445,173
10	8,000		\$104.01	\$832,080	\$475,474	\$1,307,554	\$2,506,302
11	8,000		\$106.61	\$852,882	\$487,361	\$1,340,243	\$2,568,960
12	8,000		\$109.28	\$874,204	\$499,545	\$1,373,749	\$2,633,184
13	8,000		\$112.01	\$896,059	\$512,034	\$1,408,093	\$2,699,013
14	8,000		\$114.81	\$918,461	\$524,835	\$1,443,295	\$2,766,489
15	8,000		\$117.68	\$941,422	\$537,956	\$1,479,378	\$2,835,651
16	8,000		\$120.62	\$964,958	\$551,404	\$1,516,362	\$2,906,542
17	8,000		\$123.64	\$989,082	\$565,190	\$1,554,271	\$2,979,206
18	8,000		\$126.73	\$1,013,809	\$579,319	\$1,593,128	\$3,053,686
19	8,000		\$129.89	\$1,039,154	\$593,802	\$1,632,956	\$3,130,028
20	8,000		\$133.14	\$1,065,133	\$608,647	\$1,673,780	\$3,208,279
21	8,000		\$136.47	\$1,091,761	\$623,863	\$1,715,625	\$3,288,486
22	8,000		\$139.88	\$1,119,055	\$639,460	\$1,758,515	\$3,370,698

Contract Terms

Price/AF	\$175
Quantity	10,000
Delivery (Years)	20
Frequency	80%
Inflation	2.5%
Assumed Costs	\$50
Interest	5.5%
Inflation-Adjusted	2.9%
<i>Present Value</i>	
Payments	\$27,744,773
Deliveries (AF)	113,364
Contract Value/A	\$244.74

Present Value Col (8) \$27,744,773

Notes:

1. Year of Price Redetermination: Agreement Year 7 of Eligible Transaction, which is Year 5 of deliveries
2. Vintage of Eligible Transaction = 7 years
3. Up Front Payment = 50%*\$175/AF*80%*20 years*10,000 AF/year
4. Delivery Price = (\$175/AF - \$87.50/AF credit), subject to CPI escalation
5. Delivery Payment = Quantity*Delivered Price
6. Total Payments = Delivery Payment + Up Front Payment

Table E.2
Data for Hypothetical Eligible Transactions Used in a Price Redetermination

<i>Transaction</i>	<i>Value</i>	<i>Reliability</i>	<i>Quality</i>	<i>Vintage</i>
1	\$263	0.5656	553	1
2	\$223	0.5083	403	4
3	\$327	0.9700	453	3
4	\$330	0.8560	488	5
5	\$419	0.8406	443	2
6	\$240	0.6902	514	5
7	\$305	0.6104	488	3
8	\$207	0.7575	457	10
9	\$182	0.7998	562	10
10	\$253	0.9015	637	5
11	\$318	0.9188	551	5
12	\$258	0.7248	652	2
13	\$318	0.9700	503	6
14	\$222	0.8061	410	9
15	\$170	0.5645	597	5
16	\$357	0.7731	428	4
17	\$185	0.6146	531	8
18	\$365	0.9096	479	3
19	\$287	0.7826	547	5
20	\$250	0.7742	450	2
21	\$369	0.8452	533	3
22	\$277	0.6560	414	4
23	\$390	0.7575	489	7
24	\$211	0.6752	474	8
25	\$496	0.9700	423	5
26	\$163	0.6938	495	8
27	\$380	0.9700	419	2
28	\$299	0.5518	555	6
29	\$335	0.7484	456	6
30	\$172	0.5162	619	5
Average	\$286	0.7574	501	5
Standard Deviation	\$82	0.1421	69	2.4
Maximum	\$496	0.9700	652	10
Minimum	\$163	0.5083	403	1

Figure E.1
Frequency Distribution for Predicted Value of IID Water

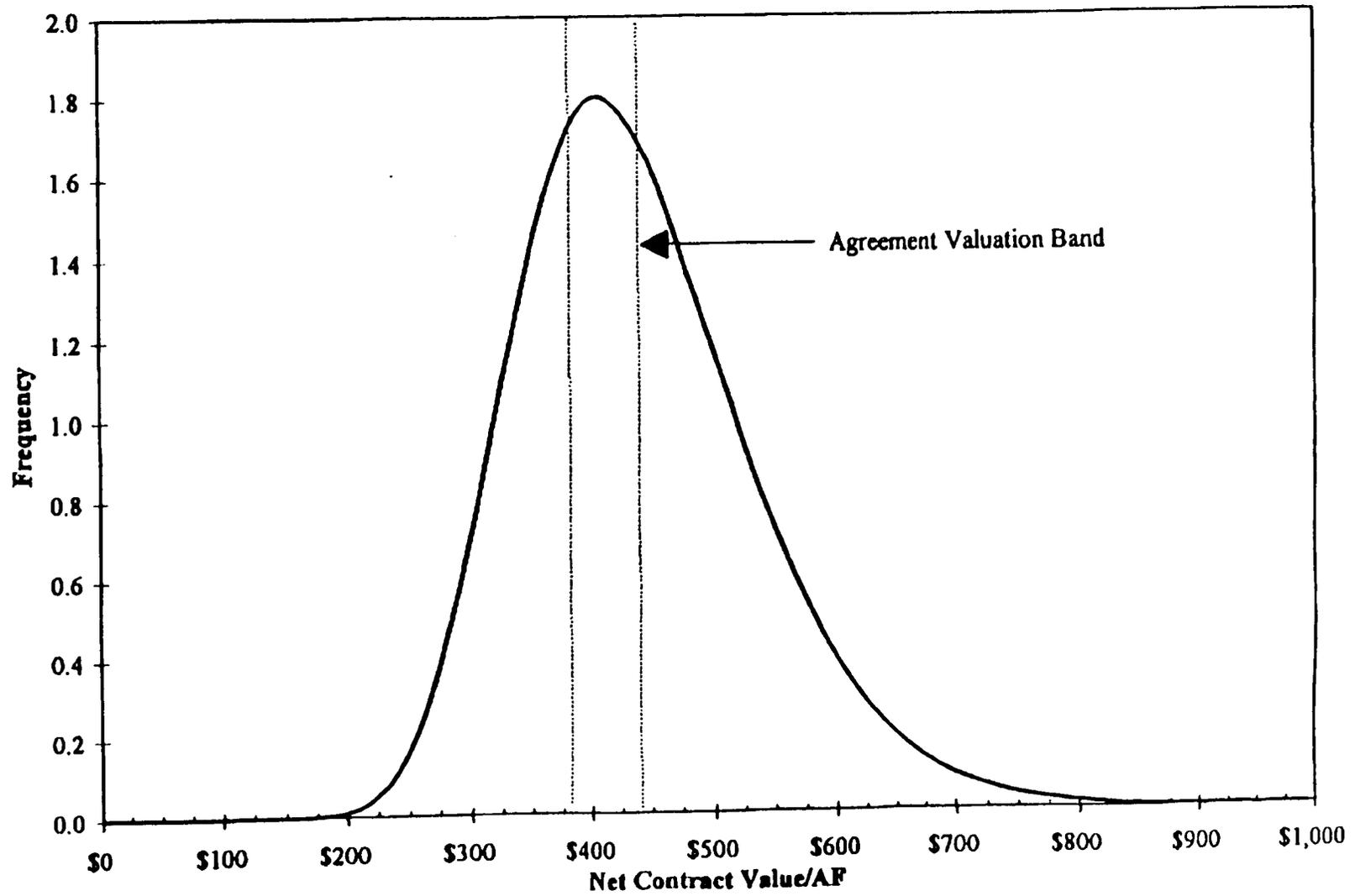


Exhibit F: Transfers of Additional Available Water

A. Summary

This exhibit describes the procedures applicable to transfers of **Additional Available Water**¹ set forth in § 3.2 of the Agreement. Independent of the quantity of water transferred under § 3.1, in its complete discretion, **IID** can elect to make additional quantities of **Conserved Water** available to the **Authority** (“Additional Available Water”). In accordance with the provisions of § 3.2 and certain identified carve-outs for transfers to **MWD** or **CVWD**, if **IID** wishes to transfer Additional Available Water it must first offer the water to the Authority. Similarly, if the Authority wants to acquire additional water from a third party other than the **MWD**, unless covered by an appropriate **Drought** or **Water Quality Transaction**, it must first offer to purchase Conserved Water from the **IID**.

The quantity of the Additional Available Water will be an amount in excess of the **Stabilized Primary Quantity** identified in § 3.1 and up to a maximum of 100,000 **AFY**. Additional Available Water does not include the quantity of Conserved Water transferred under the **IID/MWD 1988 Agreement** as of the **Execution Date** or any increases which result from the **PCC** determinations and does not include any water conserved from the **All-American Canal** or the **Coachella Canal**.

The price of the Additional Available Water is the same as other Conserved Water transferred concurrently under § 3.1 of the Agreement. The term for the transfer of any Additional Available Water must also end concurrently with the **Initial Term** and the **Renewal Term**.

¹ Terms in bold are defined in § 1.1 of the **Agreement**.

B. Procedures

For a hypothetical application of the procedures in § 3.2 assume the following:

1. In **Agreement Year 9** the Authority determines to acquire an additional 30,000 AFY of water to satisfy its projected water supply demands. The Authority provides the IID with a **Notice to Acquire** and the Notice to Acquire contains the following additional terms: A transfer start date in Agreement Year 12 and a ramp-up schedule with deliveries increasing evenly over a two-year period. In addition, the Authority included transportation and **Landowner** participation contingencies which were to be satisfied within 12 months.

2. The Notice to Acquire did not include any contingency for environmental mitigation. IID provides the Authority with its own **Notice to Transfer**, which accepts the Authority's proposed terms and adds an environmental contingency.

Comment:

Under these circumstances, the IID could have chosen to accept the terms contained in the Notice to Acquire, provide its own Notice of Transfer which included additional terms such as an acceptable environmental contingency, or elect to meet and confer with the Authority to see if mutually acceptable terms and conditions could be negotiated. Thus, its response to the above Notice to Acquire was appropriate.

Another potential application of the notice requirements is contained in the following hypothetical.

1) In Agreement Year 8, the IID provides a Notice to Transfer to the Authority that it desires to transfer 80,000 AFY of Additional Available Water to

the Authority beginning in Agreement Year 13 and under a ramp-up schedule of five years.

2) The Notice to Transfer includes a transportation, Landowner subscription and environmental contingency that must be satisfied within 24 months.

3) The Authority fails to accept the terms and conditions proposed by the IID and instead elects to provide IID with a Notice to Acquire 60,000 AFY with deliveries beginning in Agreement Year 13 and under a ramp-up schedule of six years.

Comment:

In this hypothetical situation, the Authority's response to the Notice to Transfer was not to accept the proposed terms and conditions, and to provide IID an independent Notice to Acquire. If IID elects not to accept the proposed Notice to Acquire, the Parties have an obligation to meet and confer to see whether an agreement on appropriate terms can be reached.

If no agreement on terms and conditions concerning the Additional Available Water is achieved, either the IID or the Authority can elect to provide a **Notice of Waiver** which would relieve both Parties of their respective rights and obligations concerning Additional Available Water and they would be **free** to enter **Transactions** involving third parties. On the other hand, if neither **Party** sends a Notice of Waiver, the Parties' respective rights to Additional Available Water remain intact.

C. **Carve-Outs and Exclusions**

Both the IID and the Authority have the right to "exclude" from Additional Available Water transfers and purchases which comply with certain specified restrictions.

1. **IID Carve-Out for Adjunct Contracts**

By way of example, assume the following:

- a. In Agreement Year 4, the IID provides the Authority with a Notice to Transfer for 70,000 AFY beginning in Agreement Year 11 and under a ramp-up schedule lasting five years and subject to various environmental, Landowner subscription and transportation contingencies.
- b. The Authority accepts the proposed terms and conditions within six months from receipt of the Notice to Transfer.
- c. In Agreement Year 5, the IID executes an **Adjunct Contract** with the MWD which provides for the transfer of 25,000 AFY to MWD at a price \$15 per AF higher than the per AF price paid by the Authority.

Comment

The IID's Notice to Transfer to the Authority, which was accepted by the Authority, precludes the IID from subsequently reducing the quantity of Additional Available Water to be transferred to the Authority. However, in the above hypothetical the IID agreed to transfer to MWD only 25,000 AFY. Thus, the quantity to be provided to MWD under the Adjunct Contract will not result in a reduction of the amount of Additional Available Water previously committed to the Authority. However, as a result of the 25,000 AFY Adjunct Contract with MWD, only 5,000 AFY of potential Additional Available Water remains.

2. **Authority Exclusion**

As noted above, the Authority's obligation to first offer to purchase Additional Available Water from the IID does not apply to water purchases from MWD. In addition, the Authority has

the right to *exclude* the acquisition of water from a third party other than MWD under certain conditions. For example, assume the following:

- a. In Agreement Year 1, a **Critical Year** is projected by the California Department of Water Resources.
- b. The Authority seeks to execute a contract with the City of STU to deliver 40,000 AFY of 340 **TDS** water for continuous deliveries beginning in Agreement Year 1 for the following 10 years, irrespective of whether the Critical Year condition continues.

Comment

Under these facts, the proposed contract would not qualify for an exclusion as a Water Quality Transaction or a Drought Transaction. It exceeds both the quantity limitation for a Water Quality Transaction set forth in the Agreement (20,000 AFY) and the requirement that deliveries be completed within two years from the date of execution.

3. **Authority Water Quality Exclusion**

The Authority is also allowed to acquire water from a third party to obtain a water quality benefit. A Water Quality Transaction that results in the Authority receiving water with a TDS of 400 ppm, as measured at Lake Skinner and which satisfies certain conditions, may be undertaken by the Authority without regard to its obligation to purchase Additional Water from the IID.

For example, assume the following:

- a. In Agreement Year 5, the Authority is receiving 100,000 AF of Conserved Water from the IID.
- b. The Authority proposes to execute a contract with the KLM Agency for the delivery of 50,000 AFY. The water has a TDS of 100 ppm.

c. Transportation of the water from the KLM Agency will require conveyance through the **State Water Project** and MWD transportation facilities.

d. In transporting the water to Lake Skinner, the water purchased from KLM Agency will be blended with a greater volume of State Water Project water with a TDS of 410. As a direct result of the commingling of supplies, the water received at Lake Skinner by the Authority has a TDS of 375.

e. The TDS of Conserved Water delivered to the Authority during Agreement Year 5 is 500.

f. The Authority has not undertaken any previous Water Quality Transactions.

Comment

Under these assumed facts, the proposed Water Quality Transaction qualifies for an exclusion. The Authority will take delivery of the water with a TDS of less than 400 from KLM Agency at Lake Skinner. The TDS of the proposed Transaction is also less than the TDS of the Conserved Water then being transferred by the IID to the Authority. Finally, as the total annual volume of the proposed Transaction is less than 100,000 AFY and the Authority is engaged in no other Water Quality Transactions, the Authority has satisfied the applicable schedule.

Exhibit G: Term Right of First Refusal

The **IID**¹ and the **Authority** each have with respect to the other a right of first refusal under certain circumstances for certain **Transactions** entered into after the commencement of **Agreement Year 63** and terminating on the last day of the 10th year following expiration of the **Renewal Term** (the **Shadow Period**). An example of how the term right of first refusal is implemented follows.

Assume the following:

- The **IID** is transferring 200,000 **AFY** to the Authority in Agreement Year 63.
- The **IID** is transferring 100,000 **AFY** to third parties other than the Authority in Agreement Year 63.
- The Authority is acquiring 550,000 **AFY** from **MWD**, projects and third parties other than the **IID**.
- The Authority executes a new contract with PQR water district in Agreement Year 70 for 75,000 **AFY** to commence in the first year following expiration of the **Renewal Term** and to last for 40 years at a price of \$600 per **AF** at the Colorado River, adjusted each year by the **CPI**.
- The Authority and the **IID** met and conferred in Agreement Year 63 and exchanged the following **Last Best Offers** without reaching agreement. The Authority offered to acquire 100,00 **AFY** of **IID Conserved Water** at \$650 per **AF** delivered to the Authority without escalation for 30 years, and the **IID** offered to transfer 200,000 **AFY** of **Conserved Water** to the Authority at Imperial Dam for 10 years at \$650 per **AF** with annual escalations for changes in the **CPI**.

Upon executing the agreement with PQR water district, the Authority must give written **Notice** of such agreement to the **IID** with inclusion of the contract, information about **Eligibility**

¹ Terms in **bold** are defined in § 1.1 of the **Agreement**.

Criteria, and a per AF valuation of the contract as performed in a Price Redetermination. The **Parties** then determine whether such agreement is a **Competing Proposed Transaction**. Only Competing Proposed Transactions are subject to the term right of first refusal. The PQR agreement with the Authority meets the required relevant Eligibility Criteria for being a Competing Proposed Transaction.

The IID's right of first refusal under the example extends only to Competing Proposed Transactions of the Authority that causes the Authority to acquire from MWD, projects or third parties other than IID more than 550,000 AFY by up to 200,000 AFY. Assuming the PQR Competing Proposed Transaction for 75,000 AFY was in addition to the 550,000 AFY being acquired by the Authority in Agreement Year 63, then the IID may exercise its right of first refusal within 90 days of the Notice. If the IID exercises the right of first refusal, then it must perform under all the terms of the PQR contract. If the IID fails to exercise its right of first refusal, then the Authority may consummate the agreement with PQR water district. The IID's right of first refusal continues to exist against the Authority during the Shadow Period post-rejection, but has been reduced by 75,000 AFY and may be reduced further by subsequent Authority Competing Proposed Transactions.

If the right of first refusal is exercised by the IID, then the Parties must also determine whether a premium or discount in the price under the new agreement is warranted. Under the example, the Authority is the **Offering Party** and the IID is the **Responding Party**. If the terms of the Competing Proposed Transaction are inferior to the Authority compared to the IID's Last Best Offer, as determined by utilizing the process for determining the per AF value of **Eligible Transactions** in a Price Redetermination, then the IID is entitled to receive a 10% premium above the price requested under the PQR contract. Assuming in the example no value impact has been demonstrated in the Price Redetermination history for volume differences between 75,000 AFY and 200,000 AFY, and assuming no quality differences between IID Conserved Water and PQR water, then no premium is required because the per AF value of the terms for the PQR water is superior to the Authority compared to the IID's Last Best Offer. However, if the IID's Last

Best Offer had been for \$575 per AF and if no value impact had been demonstrated in a Price Redetermination relating to term differences of 10 versus 40 years, then the IID would receive a 10% premium over the PQR price for all water delivered under the new contract.

If the IID later executed a contract with Z Municipality to transfer 50,000 AFY at the Colorado River for five years at \$600 per AF, adjusted annually for changes in CPI, then the same process described above would be utilized. However, IID would now be the Offering Party and the Authority would be the Responding Party. If the per AF value of the Authority's Last Best Offer were less to the IID than the per AF value of the Z Municipality contract, the Authority would receive no discount if it exercised its right of first refusal. But, if the Authority's Last Best Offer had a per AF value higher than the per AF value of the Z Municipality contract, and if the Authority exercised its right of first refusal, it would perform under the Z Municipality contract, except that the per AF price would be discounted by 10%.

**Exhibit H: Calculations Determining Whether
IID Environmental Mitigation Expenditures Exceed Limits**

This exhibit illustrates the calculations needed to determine whether IID environmental mitigation expenditures exceed the limits specified in §8.1(b) of the **Agreement.**¹ There are two limits:

1. *Limit on initial mitigation obligations:* the present value of expenditures for mitigation obligations identified **pre-Effective Date during initial environmental review** and as of the **Environmental Decision Date** may not exceed the **IID Environmental Cost Ceiling**; and
2. *Limit on subsequent mitigation obligations:* the present value of post-Effective Date expenditures for initial mitigation obligations, plus as of the **Subsequent Environmental Mitigation Date, any further** mitigation obligations as a result of unanticipated environmental consequences may not exceed \$30 million (in **Effective-Date Dollars**).

IID expenditures include any financing costs the IID incurs in borrowing money to fund IID mitigation programs.

The limits specified in the Agreement are applicable at the commencement or during any year of the Agreement. Therefore, there are three types of needed financial valuations:

1. An initial valuation at the Environmental Decision Date; and
2. An annual valuation commencing with initial mitigation expenditures and continuing each year of the Agreement; and
3. A valuation at a Subsequent Environmental Mitigation Date.

¹ Terms in **bold** are defined in § 1.1 of the Agreement.

If the IID incurs any mitigation obligations as of a Subsequent Environmental Mitigation Date, the annual valuation will be expanded to include both the IID's initial mitigation expenditures and all of the IID's subsequent mitigation expenditures.

Environmental Decision Date Present Value Analysis

The initial determination of whether the present value of required expenditures by the IID for mitigation obligations identified pre-Effective Date does not exceed the IID Environmental Cost Ceiling occurs at the Environmental Decision Date. Since this valuation would occur before any mitigation expenditures are made or any necessary financing arrangements are actually secured, the valuation is based on projections of the time profile of expenditures and anticipated financing arrangements.

The projections of future expenditures should reflect, at the time of the valuation, the most current and best available information on the likely magnitude of mitigation expenditures over the term of the Agreement. Such information may include projections based on analyses of historical conditions deemed representative of the conditions reasonably expected to prevail in the future.

The assumptions about financing arrangements should be consistent with the IID's plans for the financing of mitigation expenditures. The IID shall develop its financing plan with its financial advisor, under then prevailing market conditions, and the exercise of its complete discretion.

The present value of IID's projected mitigation expenditures, as of the Effective Date of the contract, is calculated as:

$$\text{Present Value} = \text{cumulative IID annual expenditures before the pre-Effective Date (plus accrued interest)} + \text{Present Value of IID's annual expenditures post-Effective Date}$$

The calculation of accrued interest shall use the cost of IID funds anticipated by IID's financing plan to fund mitigation expenditures. If this calculated present value might be more than the \$15 million limit in the exercise of IID's complete discretion, then the condition on environmental mitigation has not been satisfied.

Annual Valuations after Commencement of Initial Mitigation Expenditures

The \$30 million limit specified in the Agreement cannot be exceeded during any year of the Agreement. Therefore, a calculation must be made each year to reflect actual cumulative expenditures and the most recent projections of future obligations.

$$\text{Present Value} = \text{cumulative IID expenditures to date as of the year of the valuation} + \text{Present Value of IID's projected future annual expenditures}$$

Cumulative IID annual expenditures to date equals the sum of:

- cumulative IID expenditures pre-Effective Date (plus accrued interest) expressed in valuation year dollars
- annual IID expenditures post-Effective Date expressed in valuation year dollars

The formula for expressing expenditures in year "t" in valuation year dollars is:

$$E_{t,v} = E_t \times \text{CPI}_v \div \text{CPI}_t$$

where, $E_{t,v}$ = expenditures in year t expressed in valuation year dollars

E_t = IID expenditures in year t

CPI_v = the Consumer Price Index published during the 30 days before the month of the valuation

CPI_t = the Consumer Price Index published in year t for the month of the valuation

Since the \$30 million limit is expressed in Effective-Date Dollars, the \$30 million limit must be updated annually. The formula for the limit in year t is as follows:

$$\text{Limit}_t = \text{Limit}_{t-1} \times (1 + \pi_{t-1})$$

where Limit_t = limit on the present value of the IID's mitigation expenditures in year t,

Limit_{t-1} = limit of prior year

π_{t-1} = annual percentage change in CPI in the prior year

Annual Valuations with Subsequent Environmental Mitigation Date for Any Subsequent Environmental Review and Any Subsequent Mitigation Expenditures

If unanticipated environmental consequences result in any new mitigation obligations, the calculation of the present value of the IID's mitigation expenditures will take into account these additional expenditures. At the date of the Subsequent Environmental Mitigation Date, the projection of future new mitigation expenditures will be added to the projection of future initial mitigation expenditures. As of the date of the Subsequent Environmental Mitigation Date, the present value of the IID's mitigation expenditures shall be estimated as follows:

$$\text{Present Value} = \text{cumulative IID annual expenditures as of the Subsequent Environmental Mitigation Date (plus accrued interest) + Present Value of IID's projected future annual original and new mitigation expenditures}$$

The calculation of cumulative IID annual expenditures shall proceed in the same manner. If this present value is less than \$30 million, as adjusted by the accrued interest between the Effective Date and the year of the Subsequent Environmental Mitigation Date, then the condition on environmental mitigation continues to be satisfied. For each subsequent year, the assessment of whether the IID environmental mitigation expenditures exceed the \$30 million limit (Effective-Date Dollars) shall proceed in the same manner.

Exhibit I: Calculation of Settling-Up Payment

Suppose that the price as of the example year is \$250 per AF¹ and that the quantity of **Conserved Water** to be transferred under the **Agreement** during the example year is 200,000 AFY. The monthly payments of \$4,166,667 ($\$250 \text{ per AF} \times 200,000 \text{ AF} \div 12$) are due on the 10th **Business Day** of the month following the month of mailing of the invoice. Suppose further, however, that the actual prices and diversions during the year are as follows:

MO.	BEGINNING OF YEAR PRICE	DEEMED MONTHLY TRANSFER²	MONTHLY PAYMENT³	ACTUAL PRICE	ACTUAL DIVERSION	ACTUAL DUE	(OVER) UNDER PAYMENT
Jan	\$250 per AF	16,667 AF	\$4,166,667	\$250 per AF	17,000 AF	\$4,250,000	\$83,333
Feb	\$250 per AF	16,667 AF	\$4,166,667	\$255 per AF	16,000 AF	\$4,080,000	(\$86,667)
Mar	\$250 per AF	16,667 AF	\$4,166,667	\$255 per AF	15,000 AF	\$3,825,000	(\$341,667)
Apr	\$250 per AF	16,667 AF	\$4,166,667	\$260 per AF	14,000 AF	\$3,640,000	(\$526,667)
May	\$250 per AF	16,667 AF	\$4,166,667	\$270 per AF	13,000 AF	\$3,510,000	(\$656,667)
Jun	\$250 per AF	16,667 AF	\$4,166,667	\$275 per AF	13,000 AF	\$3,575,000	(\$591,667)
TOTAL		100,000 AF	\$25,000,002		88,000 AF	\$22,880,000	(\$2,120,002)

¹ Terms in **bold** are defined in § 1.1 of the **Agreement**.

² Rounded to nearest AF.

³ Rounded to nearest \$1.00.

MO.	BEGINNING OF YEAR PRICE	DEEMED MONTHLY TRANSFER	MONTHLY PAYMENT	ACTUAL PRICE	ACTUAL DIVERSION	ACTUAL DUE	(OVER) UNDER PAYMENT
Jul	\$250 per AF	16,667 AF	\$4,166,667	\$240 per AF	25,000 AF	\$6,000,000	\$1,833,333
Aug	\$250 per AF	16,667 AF	\$4,166,667	\$240 per AF	30,000 AF	\$7,200,000	\$3,033,333
Sep	\$250 per AF	16,667 AF	\$4,166,667	\$240 per AF	32,000 AF	\$7,680,000	\$3,513,333
Oct	\$250 per AF	16,667 AF	\$4,166,667	\$250 per AF	14,000 AF	\$3,500,000	(\$666,667)
Nov	\$250 per AF	16,667 AF	\$4,166,667	\$250 per AF	10,000 AF	\$2,500,000	(\$1,666,667)
Dec	\$250 per AF	16,667 AF	\$4,166,667	\$260 per AF	0 * AF	\$260,000*	(\$3,906,667)
TOTAL		100,000 AF	\$25,000,002		112,000* AF	\$27,140,000	\$2,139,998

*Because the quantity that the **Authority** actually diverted is only 199,000 AF, 1,000 AF less than the Agreement specifies, that 1,000 AF is "deemed" delivered during December.

The semi-annual and year-end payment is to reconcile the monthly payments with the actual due so as to result in the same result "as if" each monthly payment had been made in the amount actually due. Suppose that the **Treasury Rates** for the period 1/1 - 10/31 averaged 0.0145% per day for all portions of the period, then changed to 0.0153% per day through 2/28. (If the average rate changed more frequently, actual average rates for relevant periods would need to be used. See § 6.1.)

The Semi-Annual Settling-Up calculation looks like this:

MO.	MONTHLY PAYMENT	ACTUAL DUE	(OVER)/ UNDER PAYMENT [A]	DUE DATE	SETTLING-UP DATE	NO. OF DAYS BETWEEN DUE DATE & SETTLING UP DATE	TREASURY RATE PER DAY	SIMPLE INTEREST [B]	(OVER) UNDER PLUS INTEREST [A+B]
Jan	\$4,166,667	\$4,250,000	\$83,333	10th Bus. day of March (3/12)	10th Bus. Day of Aug. (8/13)	143	0.0145%	\$1,728	\$85,061
Feb	\$4,166,667	\$4,080,000	(\$86,667)	10th Bus. day of April (4/14)	10th Bus. Day of Aug. (8/13)	122	0.0145%	(\$1,533)	(\$88,200)
Mar	\$4,166,667	\$3,825,000	(\$341,667)	10th Bus. day of May (5/14)	10th Bus. Day of Aug. (8/13)	92	0.0145%	(\$4,558)	(\$346,225)
Apr	\$4,166,667	\$3,640,000	(\$526,667)	10th Bus. day of June (6/14)	10th Bus. Day of Aug. (8/13)	61	0.0145%	(\$4,658)	(\$531,325)
May	\$4,166,667	\$3,510,000	(\$656,667)	10th Bus. day of July (7/14)	10th Bus. Day of Aug. (8/13)	31	0.0145%	(\$2,952)	(\$659,619)
June	\$4,166,667	\$3,575,000	(\$591,667)	10th Bus. day of Aug. (8/13)	10th Bus. Day of Aug. (8/13)	0	0.0145%	\$0	(\$591,667)
TOTAL	\$25,000,002	\$22,880,000	(\$2,120,002)					(\$11,973)	(\$2,131,975)

The year end annual Final Settling-Up calculation looks like this:

MO.	MONTHLY PAYMENT	ACTUAL DUE	(OVER)/ UNDER PAYMENT [A]	DUE DATE	SETTLING- UP DATE	NO. OF DAYS BETWEEN DUE DATE & SETTLING UP DATE	TREASURY RATE PER DAY	SIMPLE INTEREST [B]	(OVER) UNDER PLUS INTEREST [A]+[B]	YEAR END ADJUST- MENT	(OVER) UNDER YEAR END ADJUST- MENT PLUS INTEREST
Jan	\$4,166,667	\$4,250,000	\$83,333	10th Bus. day of March (3/12)	10th Bus. Day of Aug. (8/13)	143	0.0145%	\$1,728	\$85,061	\$0.00	\$0.00
Feb	\$4,166,667	\$4,080,000	(\$86,667)	10th Bus. day of April (4/14)	10th Bus. Day of Aug. (8/13)	122	0.0145%	(\$1,533)	(\$88,200)	\$0.00	\$0.00
Mar	\$4,166,667	\$3,825,000	(\$341,667)	10th Bus. day of May (5/14)	10th Bus. Day of Aug. (8/13)	92	0.0145%	(\$4,558)	(\$346,225)	\$0.00	\$0.00
Apr	\$4,166,667	\$3,640,000	(\$526,667)	10th Bus. day of June (6/14)	10th Bus. Day of Aug. (8/13)	61	0.0145%	(\$4,658)	(\$531,325)	\$0.00	\$0.00
May	\$4,166,667	\$3,510,000	(\$656,667)	10th Bus. day of July (7/14)	10th Bus. Day of Aug. (8/13)	31	0.0145%	(\$2,952)	(\$659,619)	\$0.00	\$0.00
June	\$4,166,667	\$3,575,000	(\$591,667)	10th Bus. day of Aug. (8/13)	10th Bus. Day of Aug. (8/13)	0	0.0145%	\$0	(\$591,667)	\$0.00	\$0.00
July	\$4,166,667	\$6,000,000	\$1,833,333	10th Bus. day of Sept. (9/15)	10th Bus. Day of Feb. (2/12)	151	0.0145%	\$40,141	\$1,873,474	N/A	N/A

MO.	MONTHLY PAYMENT	ACTUAL DUE	(OVER)/ UNDER PAYMENT [A]	DUE DATE	SETTLING- UP DATE	NO. OF DAYS BETWEEN DUE DATE & SETTLING UP DATE	TREASURY RATE PER DAY	SIMPLE INTEREST [B]	(OVER) UNDER PLUS INTEREST [A]+[B]	YEAR END ADJUST- MENT	(OVER) UNDER YEAR END ADJUST- MENT PLUS INTEREST
Aug.	\$4,166,667	\$7,200,000	\$3,033,333	10th Bus. day of Oct. (10/14)	10th Bus. Day of Feb. (2/12)	122	0.0145%	\$53,660	\$3,086,993	N/A	N/A
Sept.	\$4,166,667	\$7,680,000	\$3,513,333	10th Bus. day of Nov. (11/12)	10th Bus. Day of Feb. (2/12)	93	0.0145%	\$47,377	\$3,560,710	N/A	N/A
Oct.	\$4,166,667	\$3,500,000	(\$666,667)	10th Bus. day of Dec. (12/14)	10th Bus. Day of Feb. (2/12)	61	0.0145%	(\$5,897)	(\$672,564)	N/A	N/A
Nov.	\$4,166,667	\$2,500,000	(\$1,666,667)	10th Bus. day of Jan. (1/14)	10th Bus. Day of Feb. (2/12)	35	0.0153%	(\$8,925)	(\$1,675,592)	N/A	N/A
Dec.	\$4,166,667	\$260,000	(\$3,906,667)	10th Bus. day of Feb. (2/12)	10th Bus. Day of Feb. (2/12)	0	0.0153%	\$0	(\$3,906,667)	N/A	N/A
TOTAL	\$25,000,002	\$27,140,000	\$2,139,998					\$126,356	\$2,266,354	\$0	\$0
											\$2,266,354

August Settling-Up Payment of \$2,131,975 paid by the IID to the Authority

February Settling-Up Payment of \$2,266,354 paid by the Authority to the IID. (The final annual Settling-Up equals the year-end adjustments to the August Settling-Up payment, if any, plus the July to December Settling-Up total.)

Exhibit J: Contribution to Satisfaction of Conditions

This exhibit illustrates the necessary calculations for either **Party**¹ to exercise their right to contribute the additional costs, in excess of the specified caps, to satisfy the Wheeling and the Environmental Mitigation conditions in Article 7 and Article 8 of the Agreement.

Wheeling Condition

The Wheeling condition of the Agreement requires that:

1. The **Actual Wheeling Bate** be determined by a methodology consistent with the definition of the **Base Wheeling Rate**;
2. The **Authority** is only required to pay to **MWD** an Actual Wheeling Rate, exclusive of any **Supplemental Wheeling Charge**, that does not exceed the Base Wheeling Rate;
3. The **Supplemental Wheeling Bate** does not exceed \$60 per **AF**;
4. The Supplemental Wheeling Charge shall only be paid on the quantity of any Flood Control Releases available for diversion by MWD that were not diverted by MWD into the **Colorado River Aqueduct** in that month because the Authority wheeled **Conserved Water** through the Colorado River Aqueduct in that month;
5. MWD makes available to the Authority at the **Conveyance Path Terminus** the same quantity of Colorado River water that the Authority makes available to MWD at Lake Havasu, less **Conveyance Losses**;

¹ Terms in **bold** are defined in § 1.1 of the **Agreement**.

6. The Conveyance Losses deducted by MWD for wheeling from Lake Havasu to the Conveyance Path Terminus shall be equal to or less than one and one-half percent (1- 1/2%) of the Conserved Water volume diverted at Lake Havasu;

7. The **Initial Term** for access begins no later than the **Initial Transfer Date** and ends no earlier than the expiration of the Initial Term.

Pursuant to Article 7.3 for the Authority and Article 8.3 for the **IID**, a Party may pay the additional costs, such that the net economic effect on the other Party is the same as if the condition had been satisfied.

Suppose that the Actual Wheeling Rate is determined by a methodology inconsistent with the definition of the Base Wheeling Rate that yields a higher wheeling rate than the Base Wheeling Rate, the Supplemental Wheeling Charge exceeds \$60 per AF, and the Supplemental Wheeling Charge were paid according to a criteria which included both the circumstances defined in this Agreement (see point 4 above) and other circumstances. Suppose further that Party A does not waive the wheeling condition, but Party B wishes to exercise its right to contribute for the satisfaction of the wheeling condition. Then the calculation of the **Base Contract Price** shall be based on the Base Wheeling Rate calculated according to the methodology specified in this Agreement, a Supplemental Wheeling Charge of \$60 per AF only paid on the quantity of any Flood Control Releases available for diversion by MWD that were not diverted by MWD into the Colorado River Aqueduct in that month because the Authority wheeled Conserved Water through the Colorado River Aqueduct in that month. For the entire Initial Term of this Agreement, Party B shall pay:

1. The Actual Wheeling Rates in excess of the Base Wheeling Rate when there is no Supplemental Wheeling Charge;
2. The portion of the Supplemental Wheeling Charge in excess of \$60 per AF paid on the quantity of any **Flood Control Releases** available for diversion by MWD that were not diverted by MWD into the Colorado River Aqueduct in that month because the Authority wheeled Conserved Water through the Colorado River Aqueduct in that month;
3. The entire Supplemental Wheeling Charge paid in circumstances other than those specified in this Agreement.

For example, suppose that the actual wheeling arrangements were the following:

Wheeling rate without hydrologic surplus: Base Wheeling Rate +
\$15 per AF

Supplemental Wheeling Charge: \$70 per AF

Criteria for payment of Supplemental Wheeling Charge: During hydrologic surplus defined as a one-year spill avoidance criteria, which includes releases of surplus water from Lake Mead under (a) the circumstances for the payment of the Supplemental Wheeling Charge under this Agreement, and (b) other hydrologic circumstances.

For the Exemplar Base Contract Price calculation in Exhibit A (p. 72), the Base Wheeling Rate remains at \$68.50 per AF, even though the actual wheeling arrangements call for a wheeling rate of \$83.50 per AF. The adjustment of the Base Contract Price for a Supplemental Wheeling Charge would only occur during Flood Control Releases and not

during the other hydrologic circumstances allowed by the one-year spill avoidance criteria. When such an adjustment in the Base Contract Price occurs, the calculation uses \$60 per AF for the Supplemental Wheeling Charge, not the \$70 per AF charge under the actual wheeling arrangements. Party B must pay the additional \$15 per AF wheeling rate without a hydrologic surplus, the additional \$10 per AF Supplemental Wheeling Charge during Flood Control Releases, and the entire \$70 per AF Supplemental Wheeling Charge under the other hydrologic circumstances.

Environmental Mitigation

The Environmental Mitigation conditions of this Agreement include the following:

1. Authority Environmental Cost Ceiling;
2. **IID** Environmental Cost Ceiling;
3. Post-Effective Date cost ceilings.

For a discussion of the calculation of these ceilings for the **IID**, see Exhibit H.

Limit on initial IID mitigation obligations. Suppose that, based on the Environmental Decision Date present value analysis, the **IID** concludes that the **IID**'s mitigation obligation might exceed \$15 million (Effective-Date Dollars), the condition on environmental mitigation has not been satisfied, and, therefore, the **IID** determines that it wishes to terminate the Agreement. Suppose **further** that the Authority wishes to exercise its right to contribute for the satisfaction of the **IID**'s environmental mitigation obligation. Then for the Initial Term and Renewal Term, if any, of this Agreement, the **IID** shall be obligated to spend up to the annual limit on mitigation expenditures as defined below. The Authority shall be obligated to reimburse the **IID**, each year, for the excess of actual

mitigation expenditures over the IID's annual limit on mitigation expenditures for the Initial Term and the Renewal Term, if any, of this Agreement.

The method for calculating the IID's annual limit on mitigation expenditures depends on whether the IID projects that its mitigation expenditures exceed or might exceed its Environmental Cost Ceiling. Suppose, for example, that the IID projects that its mitigation expenditures exceed \$15 million (Effective-Date Dollars). Then the annual limit on the IID's mitigation expenditures in every year would be calculated and equal to the projected annual mitigation expenditure in that year, multiplied by the adjustment factor. The adjustment factor equals the ratio of the IID's Environmental Cost Ceiling to the present value of IID's projected mitigation expenditures. For example, suppose that the present value of IID's projected mitigation expenditures were \$20 million (Effective-Date Dollars). Then the adjustment factor would be 75% ($\$15 \text{ million} \div \20 million). For example, if IID's projected mitigation expenditures for the year 20 10 were \$1 million and for the year 20 11 were \$1.1 million, then the IID's annual limit on its mitigation expenditures would be \$750,000 (75% of \$1 million) in the year 2010 and \$825,000 (75% of \$1.1 million) in the year 20 11.

Alternatively, suppose that the IID determines, in its complete discretion, that while the present value of its mitigation expenditures is less than \$15 million (Effective-Date Dollars), it might exceed \$15 million. Then the annual limit on the IID's mitigation expenditures in every year would equal the projected annual mitigation expenditure in that year, multiplied by the adjustment factor. The adjustment factor equals the ratio of the present value of the IID's Environmental Cost Ceiling to the IID's projected mitigation

expenditures. For example, suppose that the present value of the IID's projected mitigation expenditures were \$14 million (Effective-Date Dollars). Then the adjustment factor would be 1.07 ($\$15 \text{ million} \div \14 million). For example, if the IID's projected mitigation expenditures for the year 2010 were \$750,000 and for the year 2011 were \$800,000, then the IID's annual limit on its mitigation expenditures would be \$802,500 ($1.07 \times \$750,000$) in the year 20 10 and \$856,000 ($1.07 \times \$800,000$) in the year 20 11.

Limit on Subsequent IID mitigation obligations. Suppose that the limit on the IID's initial mitigation obligations were satisfied, but in the year 2020 the limit on subsequent IID mitigation obligations was projected to be exceeded, and the IID concludes that it wishes to exercise its right to terminate the Agreement, Suppose further that the Authority wishes to exercise its right to contribute for the satisfaction of the IID's environmental mitigation obligation. Then for the remainder of the Initial Term and a Renewal Term, if any, of the Agreement, the IID shall be obligated to spend up to an annual limit on mitigation expenditures as defined below. The Authority shall be obligated to reimburse the IID, each year, for the excess of actual mitigation expenditures over the IID's annual limit on mitigation expenditures for the remainder of the Initial Term and the Renewal Term, if any, of the Agreement.

The calculation of the IID's annual limit on mitigation expenditures is based on the projection the IID relies upon to conclude that its mitigation obligation, as of the year 2020, exceeds \$30 million (Effective-Date Dollars). Suppose, for example, that this projection yields a calculated present value of IID's mitigation expenditures of \$42.8 million (Effective-Date Dollars). The ratio of the IID's ceiling (\$30 million in Effective-

Date Dollars) to the present value of IID's projected mitigation expenditures equals 70%. Then the annual limit on IID's mitigation expenditures in any year would equal 70% of the projected annual mitigation expenditures. For example, if IID's projected that its mitigation expenditures in the year 2020 would be \$1.5 million, then the annual limit on IID's mitigation expenditures in the year 2020 would be \$1.05 (70% of \$1.5 million).

Limit on initial Authority mitigation obligations. Suppose that, based on the Environmental Decision Date present value analysis, the projection of the Authority's mitigation obligation exceeds its Environmental Cost Ceiling of \$1 million (Effective-Date Dollars), the condition on environmental mitigation has not been waived by the Authority, and the Authority concludes that it wishes to terminate the Agreement. Suppose further that the IID wishes to exercise its right to contribute for the satisfaction of the Authority's environmental mitigation obligation. Then for the Initial Term and Renewal Term, if any, of this Agreement, the Authority shall be obligated to spend up to an annual limit on mitigation expenditures. The IID shall be obligated to reimburse the Authority, each year, for the excess of actual mitigation expenditures over the Authority's annual limit on mitigation expenditures for the Initial Term and the Renewal Term, if any, of this Agreement. The calculation of the Authority's annual limit on mitigation obligations shall be based on the projection of the Authority's mitigation obligation. The calculation shall follow the method used to calculate the IID's annual limit on mitigation expenditures when the IID projects that its mitigation expenditures exceeds its Environmental Cost Ceiling.

Limit on subsequent Authority mitigation obligations. Suppose that the limit on the Authority's initial mitigation obligations were satisfied, but the limit on subsequent Authority mitigation obligations were exceeded, for example, in the year 2020, and the Authority concludes that it wishes to exercise its right to terminate the Agreement, Suppose further that the IID wishes to exercise its right to contribute for the satisfaction of the Authority's environmental mitigation obligation. Then for the remainder of the Initial Term and a Renewal Term, if any, of this Agreement, the Authority shall be obligated to spend up to an annual limit on mitigation expenditures. The IID shall be obligated to reimburse the Authority, each year, for the excess of actual mitigation expenditures over the Authority's annual limit on mitigation expenditures for the remainder of the Initial Term and the Renewal Term, if any, of this Agreement, The calculation of the Authority's annual limit on mitigation expenditures is based on the projection the Authority relies upon to conclude that its mitigation obligation, as of the year 2020, exceeds \$2 million (Effective-Date Dollars). The calculation shall follow the method used to calculate the IID's annual limit on mitigation expenditures when the IID projects that its mitigation expenditures exceeds its Environmental Cost Ceiling.

Exhibit K: Form of Bureau of Reclamation Review and Approval

The Secretary of the Interior (Secretary), hereby approves the Agreement for Transfer of Conserved Water (Agreement), dated _____, between the Imperial Irrigation District (IID) and the San Diego County Water Authority (Authority), and agrees to the following:

1. The Secretary has the delegated authority to approve the Agreement on behalf of the Secretary pursuant to the Boulder Canyon Project Act of 1928, Act of December 21, 1928, 45 Stat. 1057, as amended, 43 U.S.C. § 617 et seq., and other applicable authorities.

2. The Bureau of Reclamation (BOR) will account for the Conserved Water (as defined in the Agreement) to be transferred by the IID to the Authority, in the decree accounting required under the 1964 Arizona v. California decree, as follows:

a. The Conserved Water will be accounted for as a part of IID's diversion and beneficial use, considered Colorado River water diverted under IID's Senior Water Rights (as defined in the Agreement), and IID's Senior Water Rights will be unaffected by IID's transfer of Conserved Water to the Authority;

b. For accounting purposes, the amount of Conserved Water made available by IID and transferred to the Authority will be verified as follows: (1) by the BOR and the California State Water Resources Control Board (SWRCB) jointly measuring IID's reduced diversions at Imperial Dam (less return flows) and (2) by the SWRCB's verification of IID's

enforcement of the contractual commitment of participating Landowners to undertake Water Conservation efforts and create Conserved Water (all as defined in the Agreement); and

c. As provided in the Agreement and pursuant to the SWRCB approval process, IID will forbear under its priority 3 water right from diverting (less return flows) in excess of three million one hundred thousand (3,100,000) AFY.

3. As determined by the SWRCB and as a result of the IID's Water Conservation efforts and transfer of Conserved Water, as of the date of SWRCB approval the IID was in compliance with applicable reasonable and beneficial use requirements.

4. BOR will deliver the Conserved Water to the Authority from Lake Havasu for transportation through the Colorado River Aqueduct. Quantities ordered by the Authority will be considered a component of IID's water orders submitted to the BOR. In times of Shortage (as defined in the Agreement) when the IID's priority 3 right to divert is affected, IID and the Authority orders will be governed by the Shortage Sharing terms of the Agreement, and IID and the Authority will notify the BOR as to how the Shortage Sharing provisions will affect diversions by the Authority and by the IID.

5. Federal environmental compliance has been completed, including public comment, and third party impacts have been addressed and/or mitigated.

By: _____

SCHEDULES TO AGREEMENT FOR TRANSFER OF CONSERVED WATER

Schedule 10.1(e)

PENDING OR THREATENED DISPUTES REGARDING THE AUTHORITY

Except as disclosed on this Schedule 10.1(e), there are no actions, suits, legal or administrative proceedings, or governmental investigations pending, or to the Authority's knowledge, threatened against or affecting the Authority relating to the performance contemplated by this Agreement, including the IID's Water Conservation efforts, the IID's transfer of Conserved Water to the Authority, and the Authority's payment for such Conserved Water.

Pending Actions, Suits, Legal or Administrative Proceedings, or Governmental Investigations:

None

Threatened Actions, Suits, Legal or Administrative Proceedings, or Governmental Investigations:

Letter dated April 28, 1998 and February 16, 1998 by Tom Levy, General Manager-Chief Engineer, Coachella Valley Water District, to Maureen Stapleton, General Manager, San Diego County Water Authority, relating to the following matters: "CVWD's right to divert and use Colorado River water would be violated;" "IID has no right to transfer water;" "State law does not control the allocation, distribution and use of Colorado River water;" "The San Diego County Water Authority has no contract;" "Failure to comply with California Environmental Quality Act (CEQA)."

Letter dated April 28, 1998 by Jeffrey G. Scott, General Counsel, Vallecitos Water District, to Christine Frahm, Chairman, San Diego County Water Authority, alleging that Section 45-8 of Chapter 45 of the California Water Code Appendix (the County Water Authority Act) requires submission of the proposed agreement to the qualified electors of the San Diego County Water Authority for approval.

Letter dated April 28, 1998 by Paul L. V. Campo, President, Vista Irrigation District, to Christine Frahm, Chair, San Diego County Water Authority, alleging violations of CEQA and lack of quantification of the IID's Colorado River entitlement, among other things not affecting the validity of the contract.

Schedule 10.2(e)

PENDING OR THREATENED DISPUTES REGARDING THE IID

Pending Proceedings (actions or suits, legal or administrative)

1. In the Matters of Alleged Waste and Unreasonable Use of Water by Imperial Irrigation District; State of California State Water Resources Control Board (retained jurisdiction under Decision 1600 and Order 88-20).
2. The Metropolitan Water District of Southern California v. All Persons Interested in the Matter of the Validity of the Fourth Supplemental Resolution of Commercial Paper and Revolving Notes, Supplementing the Security of the Metropolitan Water District's Commercial Paper With Certain Wheeling Rates; Case No. BC 164076, Superior Court for the County of Los Angeles; on appeal to the 2nd District Court of Appeal (relating to MWD wheeling rate and wheeling rate establishment methodology).

Threatened Proceedings (actions or suits, legal or administrative)

1. BOR 43 CFR part 417 administrative proceeding (relating to extent of IID's water rights and IID's reasonable and beneficial use of Colorado River water).
2. CVWD (relating to environmental review compliance, legality of transfer, extent of IID's water rights, and reasonable and beneficial use of Colorado River water).
3. MWD, including any member agencies (relating to legality of transfer, extent of IID's water rights, and reasonable and beneficial use of Colorado River water).

Pending Investigations

1. BOR 43 CFR part 417 administrative proceeding (relating to extent of IID's water rights and IID's reasonable and beneficial use of Colorado River water).
2. CVWD (relating to environmental review compliance, legality of transfer, extent of IID's water rights, and reasonable and beneficial use of Colorado River water).
3. MWD, including any member agencies (relating to legality of transfer, extent of IID's water rights, and reasonable and beneficial use of Colorado River water).

Threatened Investigations

None.

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APPENDIX TO AGREEMENT FOR TRANSFER OF CONSERVED WATER

APPENDIX I

**STATUTES “AS IN EFFECT” ON EXECUTION DATE OF
AGREEMENT FOR TRANSFER OF CONSERVED WATER**

California Water Code

§ 100

§ 109

§ **350**

§ 1011

§ 1011(a)

§ 1011(b)

§ 1012

§ 1013

§ 1811(b)

§ 1811(d)

33 Code of Federal Regulations 208.11

§ 100. Beneficial use of water

It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such water is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare. The right to water or to the use or flow of water in or from any natural stream or watercourse in this State is and shall be limited to such water as shall be reasonably required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water. *(Stats.1943, c. 368, p. 1606, § 100.)*

§ 109. Efficient use of water; encouragement of voluntary transfer of water and water rights

(a) The Legislature hereby finds and declares that the growing water needs of the state require the **use** of water in * * * an efficient manner and that the efficient use of water requires * * * certainty in the definition of **property** rights to the use of water and * * * transferability of such rights. It is hereby declared to be the established policy of this state to * * * facilitate the voluntary transfer of water and water rights where consistent with the public welfare of the place of export and the place of import;

(b) The Legislature hereby directs the Department of Water Resources, the State Water Resources Control Board, and all other appropriate state agencies to encourage **voluntary** transfers of water and water rights, including, but not limited to, providing technical assistance to persons to identify and implement water conservation measures which will make additional water available for transfer. (*Added by Stats. 1980, c. 933, p. 2954, § 2. Amended by Stats. 1982, c. 867, p. 3220, § 1.*)

§ 350. Declaration

The governing body of a distributor of a public water supply, whether publicly or privately owned and including a mutual water company, may declare a water shortage emergency condition to prevail within the area served by such distributor whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent that there would be insufficient water for human consumption, sanitation, and fire protection. Added by Stats 1953, c 140, p. s 1.)

§ 1011. Appropriated water rights; cessation or reduction in use; forfeiture; transfer; reversion of rights

(a) When any person entitled to the use of water under an appropriative right fails to use all or any part of the water because of water conservation efforts, any cessation or reduction in the use of the appropriated water shall be deemed equivalent to a reasonable beneficial use of water to the extent of the cessation or reduction in use. No forfeiture of the appropriative right to the water conserved shall occur upon the lapse of the forfeiture period applicable to water appropriated pursuant to the Water Commission Act or this code or the forfeiture period applicable to water appropriated prior to December 19, 1914.

The board may require that any user of water who seeks the benefit of this section file periodic reports describing the extent and amount of the reduction in water use due to water conservation efforts. To the maximum extent possible, the reports shall be made a part of other reports required by the board relating to the use of water. Failure to file the reports shall deprive the user of water of the benefits of this section.

For purposes of this section, the term “water conservation” shall mean the use of less water to accomplish the same purpose or purposes of use allowed under the existing appropriative right. Where water appropriated for irrigation purposes is not used by reason of land fallowing or crop rotation, the reduced usage shall be deemed water conservation for purposes of this section.

(b) Water, or the right to the use of water, the use of which has ceased or been reduced as the result of water conservation efforts as described in subdivision (a), may be sold, leased, exchanged, or otherwise transferred pursuant to any provision of law relating to the transfer of water or water rights, including, but not limited to, provisions of law governing any change in point of diversion, place of use, and purpose of use due to the transfer.

(c) Notwithstanding any other provision of law, upon the completion of the term of a water transfer agreement, or the right to the use of that water, that is available as a result of water conservation efforts described in subdivision (a), the right to the use of the water shall revert to the transferor as if the water transfer had not been undertaken. *(Added by Stats.1979, c. 1112, p. 4047, § 2, eff. Sept. 28, 1979. Amended by Stats. 1982, c. 867, p. 3223, § 4; Stats. 1996, c. 408 (S. B. 1891), § 1.)*

§ 1011. Appropriated water rights; cessation or reduction in use; forfeiture; transfer; reversion of rights

(a) When any person entitled to the use of water under an appropriative right fails to use all or any part of the water because of water conservation efforts, any cessation or reduction in the use of the appropriated water shall be deemed equivalent to a reasonable **beneficial** use of water to the extent of the cessation or reduction in use. No forfeiture of the appropriative right to the water conserved shall **occur** upon the lapse of the forfeiture period applicable to water' appropriated pursuant to the Water Commission Act or this code or the forfeiture period **applicable to water appropriated prior to December 19, 1914.**

The board may require that any user of water who seeks the benefit of this section file periodic reports describing the extent and amount of the reduction in water use due to water conservation efforts. To **the** maximum extent possible, the reports shall be made a part of other reports required by the board relating to the use of **water**. Failure **to** file the reports **shall** deprive the user of **water** of **the** benefits of this section.

For purposes of **this** section, the term "water conservation" shall mean the use of less **water** to accomplish the same purpose or purposes of use allowed under the existing appropriative right. Where water appropriated for irrigation purposes is not used by reason of land fallowing or crop rotation, **the** reduced usage shall be deemed water conservation for purposes of this section.

(b) Water, or the right to **the** use of water, the use of which has ceased or been reduced as the result of **water** conservation efforts as described in subdivision (a), may be sold, leased, exchanged, or **otherwise** transferred pursuant to any provision of law relating to the transfer of water or water rights, including, but **not** limited to, provisions of law governing any change in point of diversion, place of use, and purpose of use due to the transfer.

§ 1012. Conservation effort by person, public agency, or United States agency entitled to water from Colorado River; reduction of use within Imperial Irrigation district; no forfeiture, diminution, or impairment of right to use of conserved water

Notwithstanding any other provision of law, where any person, **public** agency, or agency of the United States undertakes any water conservation effort, either separately or jointly with others entitled to delivery of water from the Colorado River under contracts with the United States, which results in reduced use of Colorado River water within the Imperial Irrigation District, no forfeiture, diminution, or impairment of the right to use the water conserved shall occur, **except** as set forth in the agreements between the parties' and the United States. (Added *by Stats. 1984*, c. 429, **§ 1.**)

§ 1013. Imperial Irrigation District; reduction of water flowing into Salton Sea; liability for effects

The Imperial Irrigation District, acting under a contract with the United States for diversion and use of Colorado River water or pursuant to the Constitution or to this chapter, or complying with an order of the Secretary of the Interior, a court, or the board, to reduce through conservation measures, the volume of the flow of water directly or indirectly into the **Salton** Sea, shall not be held liable for any effects to the **Salton** Sea or its bordering area resulting from the conservation measures.

This section shall not be construed to exempt the Imperial Irrigation District from any requirements established under the California Environmental Quality Act (Division **13** (commencing with Section 21000) of the **Public Resources Code**). (*Added by Stats. 1987, c. 629, § 1.*)

§ 1811. Definitions

As used in this article, the following terms shall have the following meanings:

(b) “Emergency” means a sudden occurrence such as a storm, flood, fire, or an unexpected equipment outage impairing the ability of a person or public agency to make water deliveries.

§ 1811. Definitions

As used in this article, the following terms shall have the following meanings:

(d) “Replacement costs” mean the reasonable portion of costs associated with **material** acquisition for the correction of unrepairable wear or other deterioration of conveyance facility parts which have an **anticipated** life which is less than the conveyance facility repayment period and which costs are attributable to the proposed use.

[Code of Federal Regulations]
[Title **33**, Volume **3**, Parts 200 to end]
[Revised as of July 1, 1997]
From the U.S. Government Printing Office via GPO Access
[CITE: 33CFR208.11]

[Page 101-113]

TITLE 33--NAVIGATION AND NAVIGABLE WATERS

CHAPTER II--CORPS OF ENGINEERS, DEPARTMENT OF THE ARMY

PART 208--FLOOD CONTROL REGULATIONS--Table of Contents

Sec. 208.11 Regulations for use of storage allocated for flood control or navigati

and regulations by the Secretary of the Army in the interest of flood control and navigation.

(a) Purpose. This regulation prescribes the responsibilities and general procedures for regulating reservoir projects capable of regulation for flood control or navigation and the use of storage allocated for such purposes and provided on the basis of flood control and navigation, except projects owned and operated by the Corps of Engineers; the International Boundary and Water Commission, United States and Mexico; and those under the jurisdiction of the International Joint Commission, United States, and Canada, and the Columbia River Treaty. The intent of this regulation is to establish an understanding between project owners, operating agencies, and the Corps of Engineers.

(b) Responsibilities. The basic responsibilities of the Corps of Engineers regarding project operation are set out in the cited authority and described in the following paragraphs:

(1) Section 7 of the Flood Control Act of 1944 (**58 Stat. 890, 33 U.S.C. 709**) directs the Secretary of the Army to prescribe regulations for flood control and navigation in the following manner:

Hereafter, it shall be the duty of the Secretary of War to prescribe regulations for the use of storage allocated for flood control or navigation at all reservoirs constructed wholly or in part with Federal funds provided on the basis of such purposes, and the operation of any such project shall be in accordance with such regulations: Provided, That this section shall not apply to the Tennessee Valley Authority, except that in case of danger from floods on the lower Ohio and Mississippi Rivers the Tennessee Valley Authority is directed to regulate the release of water from the Tennessee River into the Ohio River in accordance with such instructions as may be issued by the War Department.

(2) Section 9 of Public Law 436-83d Congress (**68 Stat. 303**) provides for the development of the Coosa River, Alabama and Georgia, and directs the Secretary of the Army to prescribe rules and regulations for project operation in the interest of flood control and navigation as follows:

The operation and maintenance of the dams shall be subject to reasonable rules and regulations of the Secretary of the Army in the interest of flood control and navigation.

Note: This Regulation will also be applicable to dam and reservoir projects operated under provisions of future legislative acts wherein the Secretary of the Army is directed to prescribe rules and regulations in the interest of flood control and navigation. The Chief of Engineers, U.S. Army Corps of Engineers, is designated the duly authorized representative of the Secretary of the Army to exercise the authority

set out in the Congressional Acts. This Regulation will normally be implemented by letters of understanding between the Corps of Engineers and project owner and will incorporate the provisions of such letters of understanding prior to the time construction renders the project capable of significant impoundment of water. A water control agreement signed by both parties will follow when deliberate impoundment first begins or at such time as the responsibilities of any Corps-owned projects may be transferred to another entity. Promulgation of this Regulation for a given project will occur at such time as the name of the project appears in the Federal Register in accordance with the requirements of paragraph 6k. When agreement on a water control plan cannot be reached between the Corps and the project owner after coordination with all interested parties, the project name will be entered in the Federal Register and the Corps of Engineers plan will be the official water control plan until such time as differences can be resolved.

(3) Federal Energy Regulatory Commission (FERC), formerly Federal Power Commission (FPC), Licenses.

(i) Responsibilities of the Secretary of the Army and/or the Chief of Engineers in FERC licensing actions are set forth in reference 3c above and pertinent sections are cited herein. The Commission may further stipulate as a licensing condition, that a licensee enter into an agreement with the Department of the Army providing for operation of the project during flood times, in accordance with rules and regulations prescribed by the Secretary of the Army.

(A) Section 4(e) of the Federal Power Act requires approval by the Chief of Engineers and the Secretary of the Army of plans of dams or other structures affecting the navigable capacity of any navigable waters of the United

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States, prior to issuance of a license by the Commission as follows:

The Commission is hereby authorized and empowered to issue licenses to citizens * * . for the purpose of constructing, operating and maintaining dams, water conduits, reservoirs, powerhouses, transmission lines, or other project works necessary or convenient for the development and improvement of navigation and for the development, transmission, and utilization of power across, along, from or in any of the streams or other bodies of water over which Congress has jurisdiction * * * Provided further, That no license affecting the navigable capacity of any navigable waters of the United States shall be issued until the plans of the dam or other structures affecting navigation have been approved by the Chief of Engineers and the Secretary of the Army.

(B) Sections 10(a) and 10(c) of the Federal Power Act specify conditions of project licenses including the following:

(1) Section 10(a). "That the project adopted * * * shall be such as in the judgment of the Commission will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of waterpower development, and for other beneficial public uses * * * ."

(2) Section 10(c). "That the licensee shall * * * so maintain and operate said works as not to impair navigation, and shall conform to such rules and regulations as the Commission may from time to time prescribe for the protection of life, health, and property * * * ."

(C) Section 18 of the Federal Power Act directs the operation of any navigation facilities built under the provision of that Act, be

controlled by rules and regulations prescribed by the Secretary of the Army as follows:

The operation of any navigation facilities which may be constructed as part of or in connection with any dam or diversion structure built under the provisions of this Act, whether at the expense of a licensee hereunder or of the United States, shall at all times be controlled by such reasonable rules and regulations in the interest of navigation; including the control of the pool caused by such dam or diversion structure as may be made from time to time by the Secretary of the Army,
* * * .

(ii) Federal Power Commission Order No. 540 issued October 31, 1975, and published November 7, 1975 (40 FR 51998), amending Sec. 2.9 of the Commission's General Policy and Interpretations prescribed Standardized Conditions (Forms) for Inclusion in Preliminary Permits and Licenses Issued Under part I of the Federal Power Act. As an example, Article 12 of Standard Form L-3, titled: "Terms and Conditions of License for Constructed Major Projects Affecting Navigable Waters of the United States," sets forth the Commission's interpretation of appropriate sections of the Act, which deal with navigation aspects, and attendant responsibilities of the Secretary of the Army in licensing actions as follows:

The United States specifically retains and safeguards the right to use water in such amount, to be determined by the Secretary of the Army, as may be necessary for the purposes of navigation on the navigable waterway affected; and the operations of the Licensee, so far as they affect the use, storage and discharge from storage of waters affected by the license, shall at all times be controlled by such reasonable rules and regulations as the Secretary of the Army may prescribe in the interest of navigation, and as the Commission may prescribe for the protection of life, health, and property, * * * and the Licensee shall release water from the project reservoir at such rate * * * as the Secretary of the Army may prescribe in the interest of navigation, or as the Commission may prescribe for the other purposes hereinbefore mentioned.

(c) Scope and terminology. This regulation applies to Federal authorized flood control and/or navigation storage projects, and to non-Federal projects which require the Secretary of the Army to prescribe regulations as a condition of the license, permit or legislation, during the planning, design and construction phases, and throughout the life of the project. In compliance with the authority cited above, this regulation defines certain activities and responsibilities concerning water control management throughout the Nation in the interest of flood control and navigation. In carrying out the conditions of this regulation, the owner and/or operating agency will comply with applicable provisions of Pub. L. 85-624, the Fish and Wildlife Coordination Act of 1958, and Pub. L.

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92-500, the Federal Water Pollution Control Act Amendments of 1972. This regulation does not apply to local flood protection works governed by Sec. 208.10, or to navigation facilities and associated structures which are otherwise covered by part 207 (Navigation Regulations) of title 33 of the code. Small reservoirs, containing less than 12,500 acre-feet of flood control or navigation storage, may be excluded from this regulation and covered under Sec. 208.10, unless specifically required by law or conditions of the license or permit.

(1) The terms reservoir and project as used herein include all water resource impoundment projects constructed or modified, including natural

lakes, that are subject to this regulation.

(2) The term project owner refers to the entity responsible for maintenance, physical operation, and safety of the project, and for carrying out the water control plan in the interest of flood control and/or navigation as prescribed by the Corps of Engineers. Special arrangements may be made by the project owner for "operating agencies" to perform these tasks.

(3) The term letter of understanding as used herein includes statements which consummate this regulation for any given project and define the general provisions or conditions of the local sponsor, or owner, cooperation agreed to in the authorizing legislative document, and the requirements for compliance with section 7 of the 1944 Flood Control Act, the Federal Power Act or other special congressional act. This information will be specified in the water control plan and manual. The letter of understanding will be signed by a duly authorized representative of the Chief of Engineers and the project owner. A "field working agreement" may be substituted for a letter of understanding, provided that the specified minimum requirements of the latter, as stated above, are met.

(4) The term water control agreement refers to a compilation of water control criteria, guidelines, diagrams, release schedules, rule curves and specifications that basically govern the use of reservoir storage space allocated for flood control or navigation and/or release functions of a water control project for these purposes. In general, they indicate controlling or limiting rates of discharge and storage space required for flood control and/or navigation, based on the runoff potential during various seasons of the year.

(5) For the purpose of this regulation, the term water control plan is limited to the plan of regulation for a water resources project in the interest of flood control and/or navigation. The water control plan must conform with proposed allocations of storage capacity and downstream conditions or other requirements to meet all functional objectives of the particular project, acting separately or in combination with other projects in a system.

(6) The term real-time denotes the processing of current information or data in a sufficiently timely manner to influence a physical response in the system being monitored and controlled. As used herein the term connotes * * * the analyses for and execution of water control decisions for both minor and major flood events and for navigation, based on prevailing hydrometeorological and other conditions and constraints, to achieve efficient management of water resource systems.

(d) Procedures--(1) Conditions during project formulation. During the planning and design phases, the project owner should consult with the Corps of Engineers regarding the quantity and value of space to reserve in the reservoir for flood control and/or navigation purposes, and for utilization of the space, and other requirements of the license, permit or conditions of the law. Relevant matters that bear upon flood control and navigation accomplishment include: Runoff potential, reservoir discharge capability, downstream channel characteristics, hydrometeorological data collection, flood hazard, flood damage characteristics, real estate acquisition for flowage requirements (fee and easement), and resources required to carry out the water control plan. Advice may also be sought on determination of and regulation for the probable maximum or other design flood under consideration by the project owner to establish the quantity of surcharge storage space, and freeboard elevation of top of dam

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or embankment for safety of the project.

(2) Corps of Engineers involvement. If the project owner is responsible for real-time implementation of the water control plan, consultation and assistance will be provided by the Corps of Engineers when appropriate and to the extent possible. During any emergency that

affects flood control and/or navigation, the Corps of Engineers may temporarily prescribe regulation of flood control or navigation storage space on a day-to-day (real-time) basis without request of the project owner. Appropriate consideration will be given for other authorized project functions. Upon refusal of the project owner to comply with regulations prescribed by the Corps of Engineers, a letter will be sent to the project owner by the Chief of Engineers or his duly authorized representative describing the reason for the regulations prescribed, events that have transpired, and notification that the project owner is in violation of the Code of Federal Regulations. Should an impasse arise, in that the project owner or the designated operating entity persists in noncompliance with regulations prescribed by the Corps of Engineers, measures may be taken to assure compliance.

(3) Corps of Engineers implementation of real-time water control decisions. The Corps of Engineers may prescribe the continuing regulation of flood control storage space for any project subject to this regulation on a day-to-day (real-time) basis. When this is the case, consultation and assistance from the project owner to the extent possible will be expected. Special requests by the project owner, or appropriate operating entity, are preferred before the Corps of Engineers offers advice on real-time regulation during surcharge storage utilization.

(4) Water control plan and manual. Prior to project completion, water control managers from the Corps of Engineers will visit the project and the area served by the project to become familiar with the water control facilities, and to insure sound formulation of the water control plan. The formal plan of regulation for flood control and/or navigation, referred to herein as the water control plan, will be developed and documented in a water control manual prepared by the Corps of Engineers. Development of the manual will be coordinated with the project owner to obtain the necessary pertinent information, and to insure compatibility with other project purposes and with surcharge regulation. Major topics in the manual will include: Authorization and description of the project, hydrometeorology, data collection and communication networks, hydrologic forecasting, the water control plan, and water resource management functions, including responsibilities and coordination for water control decisionmaking. Special instructions to the dam tender or reservoir manager on data collection, reporting to higher Federal authority, and on procedures to be followed in the event of a communication outage under emergency conditions, will be prepared as an exhibit in the manual. Other exhibits will include copies of this regulation, letters of understanding consummating this regulation, and the water control agreements. After approval by the Chief of Engineers or his duly authorized representative, the manual will be furnished the project owner.

(5) Water control agreement. (i) A water control diagram (graphical) will be prepared by the Corps of Engineers for each project having variable space reservation for flood control and/or navigation during the year; e.g., variable seasonal storage, joint-use space, or other rule curve designation. Reservoir inflow parameters will be included on the diagrams when appropriate. Concise notes will be included on the diagrams prescribing the use of storage space in terms of release schedules, runoff, nondamaging or other controlling flow rates downstream of the damsite, and other major factors as appropriate. A water control release schedule will be prepared in tabular form for projects that do not have variable space reservation for flood control and/or navigation. The water control diagram or release schedule will be signed by a duly authorized representative of the Chief of Engineers, the project owner, and the designated operating agency, and will be used as the basis for carrying out this regulation.

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Each diagram or schedule will contain a reference to this regulation.

(ii) When deemed necessary by the Corps of Engineers, information given on the water control diagram or release schedule will be supplemented by appropriate text to assure mutual understanding on certain details or other important aspects of the water control plan not covered in this regulation, on the water control diagram or in the release schedule. This material will include clarification of any aspects that might otherwise result in unsatisfactory project performance in the interest of flood control and/or navigation. Supplementation of the agreement will be necessary for each project where the Corps of Engineers exercises the discretionary authority to prescribe the flood control regulation on a day-to-day (real-time) basis. The agreement will include delegation of the responsibility. The document should also cite, as appropriate, section 7 of the 1944 Flood Control Act, the Federal Power Act and/or other congressional legislation authorizing construction and/or directing operation of the project.

(iii) All flood control regulations published in the Federal Register under this section (part 208) of the code prior to the date of this publication which are listed in Sec. 208.11(e) are hereby superseded.

(iv) Nothing in this regulation prohibits the promulgation of specific regulations for a project in compliance with the authorizing acts, when agreement on acceptable regulations cannot be reached between the Corps of Engineers and the owner.

(6) Hydrometeorological instrumentation. The project owner will provide instrumentation in the vicinity of the damsite and will provide communication equipment necessary to record and transmit hydrometeorological and reservoir data to all appropriate Federal authorities on a real-time basis unless there are extenuating circumstances or are otherwise provided for as a condition of the license or permit. For those projects where the owner retains responsibility for real-time implementation of the water control plan, the owner will also provide or arrange for the measurement and reporting of hydrometeorological parameters required within and adjacent to the watershed and downstream of the damsite sufficient to regulate the project for flood control and/or navigation in an efficient manner. When data collection stations outside the immediate vicinity of the damsite are required, and funds for installation, observation, and maintenance are not available from other sources, the Corps of Engineers may agree to share the costs for such stations with the project owner. Availability of funds and urgency of data needs are factors which will be considered in reaching decisions on cost sharing.

(7) Project safety. The project owner is responsible for the safety of the dam and appurtenant facilities and for regulation of the project during surcharge storage utilization. Emphasis upon the safety of the dam is especially important in the event surcharge storage is utilized, which results when the total storage space reserved for flood control is exceeded. Any assistance provided by the Corps of Engineers concerning surcharge regulation is to be utilized at the discretion of the project owner, and does not relieve the owner of the responsibility for safety of the project.

(8) Notification of the general public. The Corps of Engineers and other interested Federal and State agencies, and the project owner will jointly sponsor public involvement activities, as appropriate, to fully apprise the general public of the water control plan. Public meetings or other effective means of notification and involvement will be held, with the initial meeting being conducted as early as practicable but not later than the time the project first becomes operational. Notice of the initial public meeting shall be published once a week for 3 consecutive weeks in one or more newspapers of general circulation published in each county covered by the water control plan. Such notice shall also be used when appropriate to inform the public of modifications in the water control plan. If no newspaper is published in a county, the notice shall be published in one or more newspapers of general circulation within

that county. For the purposes of this section a newspaper is one qualified to publish public notices under applicable State law. Notice

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shall be given in the event significant problems are anticipated or experienced that will prevent carrying out the approved water control plan or in the event that an extreme water condition is expected that could produce severe damage to property or loss of life. The means for conveying this information shall be commensurate with the urgency of the situation. The water control manual will be made available for examination by the general public upon request at the appropriate office of the Corps of Engineers, project owner or designated operating agency.

(9) Other generalized requirements for flood control and navigation.

(i) Storage space in the reservoirs allocated for flood control and navigation purposes shall be kept available for those purposes in accordance with the water control agreement, and the plan of regulation in the water control manual.

(ii) Any water impounded in the flood control space defined by the water control agreement shall be evacuated as rapidly as can be safely accomplished without causing downstream flows to exceed the controlling rates; i.e., releases from reservoirs shall be restricted insofar as practicable to quantities which, in conjunction with uncontrolled runoff downstream of the dam, will not cause water levels to exceed the controlling stages currently in force. Although conflicts may arise with other purposes, such as hydropower, the plan or regulation may require releases to be completely curtailed in the interest of flood control or safety of the project.

(iii) Nothing in the plan of regulation for flood control shall be construed to require or allow dangerously rapid changes in magnitudes of releases. Releases will be made in a manner consistent with requirements for protecting the dam and reservoir from major damage during passage of the maximum design flood for the project.

(iv) The project owner shall monitor current reservoir and hydro-meteorological conditions in and adjacent to the watershed and downstream of the damsite, as necessary. This and any other pertinent information shall be reported to the Corps of Engineers on a timely basis, in accordance with standing instructions to the damtender or other means requested by the Corps of Engineers.

(v) In all cases where the project owner retains responsibility for real-time implementation of the water control plan, he shall make current determinations of: Reservoir inflow, flood control storage utilized, and scheduled releases. He shall also determine storage space and releases required to comply with the water control plan prescribed by the Corps of Engineers. The owner shall report this information on a timely basis as requested by the Corps of Engineers.

(vi) The water control plan is subject to temporary modification by the Corps of Engineers if found necessary in time of emergency. Requests for and action on such modifications may be made by the fastest means of communication available. The action taken shall be confirmed in writing the same day to the project owner and shall include justification for the action.

(vii) The project owner may temporarily deviate from the water control plan in the event an immediate short-term departure is deemed necessary for emergency reasons to protect the safety of the dam, or to avoid other serious hazards. Such actions shall be immediately reported by the fastest means of communication available. Actions shall be confirmed in writing the same day to the Corps of Engineers and shall include justification for the action. Continuation of the deviation will require the express approval of the Chief of Engineers, or his duly authorized representative.

(viii) Advance approval of the Chief of Engineers, or his duly authorized representative, is required prior to any deviation from the plan of regulation prescribed or approved by the Corps of Engineers in

the interest of flood control and/or navigation, except in emergency situations provided for in paragraph (d) (9) (vii) of this section. When conditions appear to warrant a prolonged deviation from the approved plan, the project owner and the Corps of Engineers will jointly investigate and evaluate the proposed deviation to insure that the overall integrity of the plan would not be unduly compromised. Approval of prolonged deviations will not be granted unless such

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investigations and evaluations have been conducted to the extent deemed necessary by the Chief of Engineers, or his designated representatives, to fully substantiate the deviation.

(10) Revisions. The water control plan and all associated documents will be revised by the Corps of Engineers as necessary, to reflect changed conditions that come to bear upon flood control and navigation, e.g., reallocation of reservoir storage space due to sedimentation or transfer of storage space to a neighboring project. Revision of the water control plan, water control agreement, water control diagram, or release schedule requires approval of the Chief of Engineers or his duly authorized representative. Each such revision shall be effective upon the date specified in the approval. The original (signed document) water control agreement shall be kept on file in the respective Office the Division Engineer, Corps of Engineers, Department of the Army, located at division offices throughout the continental USA. Copies of these agreements may be obtained from the office of the project owner, or from the office of the appropriate Division Engineer, Corps of Engineers.

(11) Federal Register. The following information for each project subject to section 7 of the 1944 Flood Control Act and other applicable congressional acts shall be published in the Federal Register prior to the time the projects becomes operational and prior to any significant impoundment before project completion or * * * at such time as the responsibility for physical operation and maintenance of the Corps of Engineers owned projects is transferred to another entity:

- (i) Reservoir, dam, and lake names,
- (ii) Stream, county, and State corresponding to the damsite location,
- (iii) The maximum current storage space in acre-feet to be reserved exclusively for flood control and/or navigation purposes, or any multiple-use space (intermingled) when flood control or navigation is one of the purposes, with corresponding elevations in feet above mean sea level, and area in acres, at the upper and lower limits of said space,
- (iv) The name of the project owner, and
- (v) Congressional legislation authorizing the project for Federal participation.

(e) List of projects. The following tables, "Pertinent Project Data--Section 208.11 Regulation," show the pertinent data for projects which are subject to this regulation.

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[Non-Corps pro

Project name \l\	State	County	Stream \l\
Col. No. 1	2	3.....'..	4.....
Agency Valley Dam & Res.....	OR	Malheur.....	N Fork Malheur R...

Alpine Dam.....	IL	Winnebago	Keith Cr
Altus Dam & Res.....	OK	Jackson	N Fork Red R.....
Anderson Ranch Dam & Res.....	ID	Elmore.....	S Fk Boise R.....
Arbuckle Dam & Res.....	OK	Murray.....	Rock Cr.....
Arrowrock Dam & Res.....	ID	Elmore.....	Boise R.....
Bear Cr Dam.....	MO	Marion Rail	Bear Cr
Bear Swamp Fife Brook (Lo)	MA	Franklin	Deerfield R.....
Bear Swamp PS (Upper)	MA	Franklin	Deerfield R Trib...
Bellows Falls Dam & Lk	VT	Cheshire	Connecticut R.....
Big Dry Creek and Div.....	CA	Fresno	Big Dry Cr & Dog Cr
Blue Mesa Dam & Res.....	co	Gunnison	Gunnison R.....
Boca Dam & Res	CA	Nevada	Little Truckee R...
Bonny Dam & Res	co	Yuma	S Fork Republic R..
Boysen Dam & Res.....	WY	Fremont	Wild R.....
Brantley Dam & Res	NM	Eddy.....	Pecos R.....
Brownlee Dam & Res	OR	Baker	Snake R.....
	ID	Washington.....	
Bully Cr Dam & Res	OR	Malheur	Bully Cr
Camanche Dam & Res	CA	San Joaquin.....	Mokelumne R.....
Canyon Ferry Dam & Lk.....	MT	Lewis Clark.....	Missouri R.....
Cedar Bluff Dam & Res.....	KS	Trego.....	Smoky Hill R.....
Cheney Dam & Res.....	KS	Sedgwick.....	N Fork Ninnescah R.
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Clark Canyon Dam & Res.....	MT	Beaverhead.....	Beaverhead R.....
Del Valle Dam & Res.....	CA	Alameda.....	Alameda Cr.....
Don Pedro Dam & Lk.....	CA	Tuolumne.....	Tuolumne R.....
East Canyon Dam & Res	UT	Morgan	East Canyon Cr
Echo Dam & Res	UT	Summit	Weber R.....
Emigrant Dam & Res	OR	Jackson	Emigrant Cr.....
Enders Dam & Res	NE	Chase	Frenchman Cr
Folsom Dam & Lk.....	CA	Sacramento	American R.....
Fort Cobb Dam & Res.....	OK	Cadd	Pond (Cobb) Cr.....
Foss Dam & Res.....	OK	Custer	Washita R.....
Friant Dam & Millerton Lk.....	CA	Fresno	San Joaquin R.....
Galesville Dam.....	OR	Douglas.....	Cow Cr.....

Gaston Dam & Res.....	NC	Halifax.....	Roanoke R.....
Glen Elder Dam & Waconda Lk.....	KS	Northampton.....	Solomon R.....
Glendo Dam & Res.....	WY	Mitchel.....	
Grand Coulee Dam & FDR Lk.....	WA	Platte.....	N Platte R.....
H Neely Henry Dam & Res.....	AL	Okanogan Grant.....	Columbia R.....
Harris Dam & Res.....	AL	Calhoun St. Clair...	Coosa R.....
Heart Butte Dm & Lk Tschida.....	ND	Randolph.....	Tallapoosa R.....
		Grant.....	Heart R.....
Hells Canyon Dam & Res.....	OR	Wallow.....	Snake R.....
	ID	Adams.....	
Hoover Dam & Lk Mead.....	NV	Clark Mohave.....	Colorado R.....
	AZ		
Hungry Horse Dam & Res.....	MT	Flathea.....	S Fork Flathead R..
Indian Valley Dam & Res.....	CA	Lake.....	N Fork Cache Cr....
Jamestown Dam & Res.....	ND	Stutsman.....	James R.....
Jocassee Dam & Res.....	SC	Picken.....	Keowee R.....
Keowee Dam & Lk.....	SC	Picken.....	Keowee R.....
Kerr Dam Flathead Lk.....	MT	Lake.....	Flathead R.....
Kerr Dam & Lk Hudson (Markham Ferry Project).	OK	Maye.....	Grand Neosho R.....

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Keyhole Dam & Res.....	WY	Crook.....	Belle Fourche R....
Kirwin Dam & Res.....	KS	Phillips.....	N Fork Solomon R...
Lake Kemp Dam & Res.....	TX	Wichita.....	Wichita R.....
Leesville Dam & Res.....	VA	Campbell Pttsylvania.	Roanoke R.....
Lemon Dam & Res.....	co	La Plats.....	Florida R.....
Lewis M Smith Dam & Res.....	AL	Walker Culman.....	Sipsey Fork; Black Warrior R.
Little Wood.....	ID	Blain.....	Little Wood R.....
Logan Martin Dam & Res.....	AL	Talladega.....	Cossa R.....
Los Banos Dam & Detention.....	CA	Merce.....	Los Banos Cr.....
Los Banos Dam & Detention Res....	CA	Merce.....	Los Banos Cr.....
Lost Creek Dam & Res.....	UT	Morgan.....	Lost Cr.....
Lovewell Dam & Res.....	KS	Jewell.....	White Rock Cr.....
Marshall Ford Dam & Res.....	TX	Travis.....	Colorado R.....
Mayfield Dam & Res.....	WA	Lewis.....	Cowlitz R.....
McGee Creek Dam & Res.....	OK	Atoka.....	McGee Cr.....
Medicine Cr Dam Harry Strunk Lk..	NE	Frontier.....	Medicine Cr.....
Mossyrock Dam Davisson Lk.....	WA	Lewis.....	Cowlitz R.....
Mt Park Dam Tom Steed Res.....	OK	Kiowa.....	W Otter Cr.....
Navajo Dam & Res.....	NM	San Juan.....	San Juan R.....
		Rio Arriba.....	
New Bullards Bar Dam & Res.....	CA	Yuba.....	Yuba R.....
New Exchequer Dam & Lk.....	CA	Tuolumne.....>..	Merced R.....

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New Melones Dam & Lk.....	CA	Tuolumne Calaveras	Stanislaus R.....
Northfield Mt (Up) PS.....	MA	Franklin.....	Connecticut
Norton Dam & Kieth Sebelius Lk...	KS	Norton.....	Prairie Dog Cr.....
Ochoco Dam & Res	OR	Crook.....	Ochoco Cr.....
Oroville Dam & Lk.....	CA	Butte.....	Feather R.....
Pactola Dam & Res.....	SD	Pennington.....	Rapid Cr.....
Palisades Dam & Res	ID	Bonneville	Snake R.....
Paonia Dam & Res	co	Gunnison	Muddy Cr.....
Pensacola Dam Grand Lake 0' the Cherokees.	OK	Mayes.....	Grand (Neosho) R...
Pineview Dam & Res.....	UT	Weber	Odgen R.....
Platoro Dam & Res.....	co	Conejos	Conejos R.....
Priest Rapids Dam & Res	WA	Grant	Columbia R.....
Prineville Dam & Res	OR	Crook	Crooked R.....
Prosser Cr Dam & Res	CA	Nevada	Prosser Cr.....
Pueblo Dam & Res.....	co	Pueblo.....	Arkansas R.....
Red Willow Dam Hugh Butler Lk....	NE	Frontier.....	Red Willow Cr.....
Ririe Dam & Res	ID	Bonneville	Willow Cr.....
Roanoke Rapids Dam & Res	NC	Halifax	Roanoke R.....
Rocky Reach Dam Lk Entiat	WA	Chelan.....	Columbia R.....
Rocky River PS Lk Candlewood.....	CT	Litchfield.....	Housatonic R.....
Ross Dam & Res	WA	Whatcom.....	Skagit R.....
Sanford Dam & Lk Meredith	TX	Hutchison	Canadian R.....
Savage River Dam & Res	MD	Garrett	Savage R.....
Scoggins Dam Henry Hagg Lk.....	Scoggins Cr.....
Shadehill Dam & Res.....	SD	Perkins	Grand R.....
Shasta Dam Lk	CA	Shasta.....	Sacramento R.....
Shepaug Dam & Lk.....	CT	Litchfield.....	Housatonic-R
Smith Mtn Dam & Res	VA	Bedford..... Franklin..... Roanoke..... Pttsylvania.....	Roanoke R.....
Stampede Dam & Res.....	CA	Sierra.....	Little Truckee R...
Starvation Dam and Res.....	UT	Duchesne.....	Strawberry R.....

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Stevens Creek Dam & Res	GA	Columbia.....	Savannah River.....
Stevenson Dam Lk Zoar.....	CT	Litchfield.....	Housatonic R.....
Summer Dam & Lk	NM	De Bac	Pecos R.....
Tat Momolikot Dam & Lake	AZ	Pinal.....	Santa Rosa Wash....
Tiber Dam & Res	MT	Libert Toole.....	Marias R.....

Trenton Dam & Res.....	NB	Hitchcock.....	Republican R.....
Turners Falls (Low) Dam & Lk.....	MA	Franklin.....	Connecticut R.....
Twin Buttes Dam & Lake.....	TX	Tom Green.....	Conch0 R.....
Twitchell Dam & Res.....	CA	Santa Barbara.....	Cuyama R.....
Upper Baker Dam Baker Lk.....	WA	Whatcorn.....	Baker R.....
Vallecito Dam & Res.....	co	La Plats.....	Los Pinos R.....
Vernon Dam & Lk	VT	Windha	Connecticut R.....
Wanapum Dam & Res	WA	Grant	Columbia R.....
Wanship Dam & Rockpor	UT	Summit	Weber R.....
Warm Springs Dam & Res	OR	Malheur.....	Middle Fork Malheur R.
Waterbury Dam & Res	VT	Washington.....	Little R.....
Webster Dam & Res	KS	Rocks	S Fork Solomon R...
Weiss Dam & Res.....	AL	Cherokee.....	Coosa R.....
Wells Dam L Pateros.....	WA	Douglas.....	Columbia R.....
Wilder Dam & Lk	VT	Windsor.....	Connecticut R.....
Yellowtail Dam & Bighorn Lk	MT	Big Horn.....	Bighorn R.....

 \1\ Cr--Creek; CS--Control Structure; Div--Diversion; DS--Drainage Structure; FG--F
 Res--Reservoir
 \2\ F--Flood Control; N--Navigation; P--Corps Hydropower; E--Non Corps Hydropower;
 Augmentation or Pollution Abatement; R--Recreation; Q--Water Quality or Silt Cont

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\3\ FCA--Flood Control Act; FERC--Federal Energy Regulatory Comm; HD--House Documen
 \4\ Appl Pwr--Appalachian Power; Chln PUD--Chelan Cnty PUD 1; CLPC--CT Light & Powe
 Dist; GRD--Grand River Dam Auth; Grnt PUD--Grant Cnty PUD 2; Hnbl--city of Hannib
 Power & Light; Ptmc Comm--Upper Potomac R Comm; Rclm B--Reclamation Board; Rkfd--
 of Wichita Falls and Wichita Cnty Water Improvement District No. 2; WMEC--Western

(Sec. 7, Pub. L. 78-534, 58 Stat. 890 (33 U.S.C. 709); the Federal Power Act, 41 St
 791(A)); and sec. 9, Pub. L. 83-436, 68 Stat. 303)
 [43 FR 47184, Oct. 13, 1978, as amended at 46 FR 58075, Nov. 30, 1981; 55 FR 21508,

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FIELD WORKING AGREEMENT

BETWEEN

DEPARTMENT OF THE INTERIOR, BUREAU OF RECLAMATION

AND

DEPARTMENT OF THE ARMY, CORPS OF ENGINEERS

FOR

FLOOD CONTROL OPERATION

OF

HOOVER DAM AND LAKE MEAD, COLORADO RIVER, NEVADA - ARIZONA

RECEIVED

JUN 6 1986

UPPER COLORADO RIVER COMMISSION
SALT LAKE CITY UTAH

This field working agreement, made and entered into this 8th day of February 1984, between the Lower Colorado Region, Bureau of Reclamation and the South Pacific Division, Corps of Engineers,

WITNESSETH THAT:

WHEREAS, Hoover Dam and Lake Mead, Colorado River, Clark County, Nevada and Mohave County, Arizona, was authorized as part of the Boulder Canyon Project Act (Public Law 70-642). The Boulder Canyon Project Act states that Boulder Dam (Public Law 43 changed the name of the structure from Boulder Dam to Hoover Dam) and the reservoir that it creates shall be used: first, for river regulation, improvement of navigation, and flood control; second, for irrigation and domestic uses; and third, for power.

WHEREAS, the Department of the Interior, acting through the Bureau of Reclamation, represented by the appropriate Regional Director, hereinafter referred to as the Regional Director, has constructed Hoover Dam and

Reservoir, and is responsible for the safety of the structure and for normal operations of the Lower Colorado River, of which said dam and reservoir are a part.

WHEREAS, the Department of the Army, acting through the Corps of Engineers, represented by its appropriate District and Division Engineers, is responsible for the flood control operation of Hoover Dam and Lake Mead in accordance with Section 7 of the 1944 Flood Control Act (Section 7, Public Law 78-534, 58 Stat. 890, 33 U.S.C. 709), which directs the Army to prescribe regulations for the use of storage allocated for flood control or navigation at all reservoirs constructed wholly or in part with Federal funds, and as promulgated in the Code of Federal Regulations, Title 33, Part 208.11, 13 October 1978.

WHEREAS, there is a need for a working agreement to insure a clear understanding of flood control regulations and information exchange required for the operation of Hoover Dam and Lake Mead.

NOW, THEREFORE, it is mutually understood and agreed by and between the parties hereto that this field working agreement shall consummate the provisions of the 1944 Flood Control Act for Hoover Dam and Lake Mead. In addition to the responsibilities of the project owner and the Corps of Engineers spelled out in paragraph 208.11, 33 CFR, it is agreed that Hoover Dam and Lake Mead will be operated in the interest of flood control in accordance with the following water control plan.

(a) In order to provide storage space for control of floods, releases from Lake Mead shall be scheduled so that available storage space for flood control will not be less than that indicated in the following table for the dates shown. Flood control storage space shall be the available storage space below elevation 1,229 feet.

<u>Date</u>	<u>Available flood control storage space</u> (acre-feet)
1 August.....	1,500,000
1 September.....	2,270,000
1 October.....	3,040,000
1 November.....	3,810,000
1 December.....	4,580,000
1 January.....	5,350,000

Pertinent information on permissible changes in available flood control storage space in Lake Mead is given in subparagraphs (1), (2), and (3) of this paragraph.

(1) The available flood control storage space in Lake Mead during the period 1 August to 1 January may be reduced to a minimum of 1,500,000 acre-feet, provided the additional space prescribed under paragraph (a) above is available in active storage space in upstream reservoirs. The maximum storage space in upstream reservoirs that can be credited to the 1 September, 1 October, 1 November, 1 December, or 1 January storage space requirement in Lake Mead is given in the following table:

<u>Reservoir</u>	<u>Maximum Creditable storage space (Acre-feet)</u>
Lake Powell.....	3,850,000
Navajo.....	1,035,900
Blue Mesa.....	749,500
Flaming Gorge plus Fontenelle.....	1,507,200

(2) Space building releases from Lake Mead during the period 1 August to 1 January shall not exceed 28,000 cubic feet per second. Space building releases are herein defined as releases for the purpose of attaining the available flood control storage space given in paragraph (a) above.

(3) If, however, available flood control storage space diminishes at any time to less than 1,500,000 acre-feet then the minimum flood control releases are described in paragraph (b) below.

(b) At any time during the year, if available storage space in Lake Mead should become less than 1,500,000 acre-feet, then minimum releases from Lake Mead for flood control shall be determined daily from table 1 (Minimum Flood Control releases from Hoover Dam throughout the year) ^(p. 11) using available flood control storage space in Lake Mead. Pertinent information on permissible changes in the releases as indicated in table 1 is given in subparagraphs (1), (2), and (3) of this paragraph.

(1) During 1 August to 1 January minimum releases from Lake Mead as given in table 1, if 40,000 cubic feet per second or less, shall not be reduced when once initiated until the storage space prescribed in paragraph (a) above becomes available. During the remainder of the year, releases as given in table 1 if 40,000 cubic feet per second or less are maintained until 1,500,000 acre-feet of storage is available at Lake Mead.

(2) Minimum releases from Lake Mead as given in table 1, if greater than 40,000 cubic feet per second, shall not be reduced, when once initiated, until Lake Mead water surface has receded to elevation 1,221.4 (top of spillway gates raised position). During 1 August to 1 January, releases may then be gradually reduced to 40,000 cubic feet per second and shall be maintained at not less than that rate until the storage space prescribed in paragraph (a) above becomes available. During the remainder of the year releases may also be reduced to 40,000 cubic feet per second upon reaching elevation 1,221.4 in Lake Mead, and shall be maintained at not less than that rate until 1,500,000 acre-feet of storage space is available at Lake Mead.

(3) The releases required in table 1 are minimum releases. Based on forecasted inflow, releases when the Lake Mead water surface elevation is between 1219.61 feet and 1229.00 may be higher during the early stages of a flood so as to achieve a greater reduction in ultimate peak outflow.

(c) Releases from Lake Mead shall be restricted to quantities that will not cause a flow in excess of 40,000 cubic feet per second at the gaging station, Colorado River below Davis Dam, insofar as possible.

However, with the reservoir water surface at the top of the flood control pool, a discharge of about 65,000 cubic feet per second will be passing over the Hoover Dam spillways with the gates in the raised position.

(d) For the period 1 January through 31 July, minimum releases from Lake Mead to attain the 1 August flood control space prescribed in paragraph (a) above shall be determined by use of the Flood Control Algorithm described in Exhibit 1 and Water Loss Equations for Lakes Mead and Powell described in Exhibit 2. Pertinent information on inflow forecasts and on permissible changes in the prescribed releases is given in subparagraphs (1), (2), (3), (4), (5), and (6) of this paragraph.

(1) All inflow forecasts used in carrying out the provisions of these regulations shall be prepared by the Colorado River Forecasting Service located in the National Weather Service River Forecast Center in Salt Lake City, Utah and shall be for the flow of the Colorado River into Lake Mead including the runoff contribution from the tributary drainage area between Lake Powell and Lake Mead.

(2) Lake Mead inflow forecasts as provided by the Colorado River Forecast Service shall be determined from depleted flow. Depletion of natural (virgin) flow shall include transbasin diversions, net water use (diversion minus return flow), and evaporation from reservoirs upstream of Lake Powell. Adjustments to the forecast provided by the Colorado River Forecast Service shall be made for effective storage space in upstream reservoirs as specified in subparagraph (3) of this paragraph. The

maximum forecast for any specified runoff period is defined as the estimated inflow volume (acre-feet) that, on the average, will not be exceeded 19 times out of 20.

(3) Effective storage space in Navajo, Blue Mesa, and Flaming Gorge plus Fontenelle reservoirs is the lesser of the actual space available, or the usable space available. The usable space is the difference between the mean forecasted inflow volume (acre-feet) for any specified runoff period and projected mean reservoir releases. In computing effective storage space for Flaming Gorge plus Fontenelle, the actual space is the sum of the actual available space in both reservoirs; while mean forecasted inflow volume and projected mean reservoir release will be the values at Flaming Gorge reservoir. Effective storage space in a reservoir(s) may be a negative value if projected mean reservoir releases exceed the mean forecasted inflow volume.

(4) When minimum releases for the months of January through July as determined by the Flood Control Algorithm are less than 28,000 cubic feet per second, it will be permissible to release less than the indicated amounts for a part of a month, provided the average releases for the entire month will equal the release given by the Algorithm, without flows exceeding 28,000 cubic feet per second at the gaging station, Colorado River below Davis Dam.

(5) The Flood Control Algorithm described in Exhibit 1 accounts for storage space in Lakes Powell and Mead. Whenever sufficient runoff occurs, Lake Powell is expected to fill to capacity (water surface

elevation 3700.0 feet) and Lake Mead is expected to fill to capacity (water surface elevation 1219.61), and remain full until 1 August so as to preclude any increase in the flood control releases specified by the Flood Control Algorithm above 28,000 cubic feet per second at the gaging station, Colorado River below Davis Dam.

(6) The objective of the Flood Control Algorithm is to specify releases such that Lake Mead will be no higher than water surface elevation 1219.61 feet (1,500,000 acre-feet of available storage space below elevation 1229.0 feet) on 1 August. Subsequent revisions to the minimum releases specified by the Flood Control Algorithm may be made during July if justified by a forecast of the remaining runoff and comparison with empty reservoir space available.

(e) During the period 1 January through 31 July the larger release specified by the Flood Control Algorithm versus table 1 shall be the required minimum release.

(f) At anytime of the year, Hoover Dam releases shall not result in a flow rate greater than 28,000 cubic feet per second at the gaging station, Colorado River below Davis Dam unless required or authorized by these regulations.

(g) Nothing in this agreement shall be construed to require dangerously rapid changes in magnitudes of releases. Releases will be made in a manner consistent with requirements for protecting the dam, reservoir and appurtenances from major damages.

(h) Hoover Dam is but one of three major flood control reservoirs in the Lower Colorado River Basin. The Corps of Engineers operates Alamo Dam on the Bill Williams River and Painted Rock Dam on the Gila River. In that flows on these tributary streams contribute to the mainstem Colorado River, coordinated operation of all three reservoirs is essential to achieving flood control objectives. Hence temporary deviations from the Hoover Dam releases prescribed in this regulation may be necessary after consideration of the available storage, projected inflows, and required releases from these tributary reservoirs.

(i) The Bureau of Reclamation shall procure such current basic hydrologic data, and make such current calculations of permissible releases from Lake Mead as are required to accomplish the flood control objectives prescribed above.

(j) The Bureau of Reclamation shall keep the Los Angeles District Engineer, Corps of Engineers, Department of the Army, in charge of the locality, currently advised of reservoir releases, reservoir storage, and such other operating data as the District Engineer may request, and also of those basic operating criteria that effect the schedule of operation.

(k) The flood control regulations are subject to temporary modification by the Los Angeles District Engineer, Corps of Engineers, if found necessary in time of emergency. Requests for and action on such modifications may be made by the fastest means of communications available. The action taken shall be confirmed in writing the same day to the office of the Regional Director and shall include justification for the action.

(l) The Regional Director may temporarily deviate from the flood control regulations in the event an immediate short-term departure is deemed necessary for emergency reasons to protect the safety of Hoover Dam and Lake Mead, or downstream dams, or the levee systems along the lower Colorado River. Such actions will be immediately reported by the fastest means of communication available. Actions shall be confirmed in writing the same day to the Los Angeles District Engineer, Corps of Engineers, and shall include justification for the action.

(m) The Bureau of Reclamation shall be responsible for providing adequate warnings to downstream interests when changes in release of stored floodwaters are made.

(n) Revisions to the flood control operation for Hoover Dam and Lake Mead may be developed as necessary by the parties of this agreement. Each such revision shall be effective on the date specified.

IN WITNESS WHEREOF, the parties hereto have caused this memorandum of agreement to be executed as of the day and date first above written.

Corps of Engineers

BY: 
Brigadier General, USA
Division Engineer
South Pacific Division

Bureau of Reclamation

BY: 
Regional Director
Lower Colorado Region

Table 1. Minimum flood control releases from Hoover Dam throughout the year.

<u>CRITERIA</u>	<u>RELEASES</u>
Water surface elevation between 1219.61 and 1221.40 feet (available storage between 1,500,000 and 1,218,000 acre-feet)	Make releases equal to inflow up to 28,000 cubic feet per second
Water surface elevation between 1221.40 and 1226.90 feet (available storage between 1,218,000 and 340,000 acre-feet)	Make outflow equal to inflow up to 40,000 cubic feet per second
Water surface elevation between 1226.90 feet to 1229.00 (available storage between 340,000 and 0 acre-feet)	Make outflow equal to inflow up to 65,000 cubic feet per second
At water surface elevation 1229.00 (top of the flood control pool)	Maintain outflow equal to inflow

NOTE:

<u>Water surface elevation (feet)</u>	<u>Water in storage (millions of acre-feet)</u>	<u>Available storage (millions of acre-feet)</u>	<u>Level</u>
1205.40	23.708	3.669	Permanent spillway crest
1219.61	25.877	1.500	Minimum required flood control pool
1221.40	26.159	1.218	Top of spillway gates in raised position
1226.9	27.037	0.340	Spillway discharge equals 40,000 cubic feet per second with spillway gates in raised position
1229.00	27.377	0	Top of flood control pool
1232.00	---	0	Top of dam

EXHIBIT 1

FLOOD CONTROL ALGORITHM

The flood control algorithm is applicable during the period of 1 January through 31 July.

Definitions.

- FI = the forecasted depleted inflow volume (in million acre-feet) to Lake Mead during the current month through 31 July, which will not be exceeded 19 times out of 20, and has been adjusted for effective storage space in selected upstream reservoirs excluding Lake Powell. FI is referred to as the maximum forecast.
- SSM = current storage space (in million acre-feet) in Lake Mead below elevation 1229.0 feet.
- SSP = current storage space (in million acre-feet) in Lake Powell below elevation 3700.0 feet.
- RRM_N = the Hoover Dam hypothetical average release rate (in cubic feet per second at a specific step rate corresponding to the subscript N) through 31 July excluding the current month. Step values are as follows:

<u>Release Step</u>	<u>Release Rate</u>
	(cubic feet per second)
RRM ₁	0
RRM ₂	19,000
RRM ₃	28,000
RRM ₄	35,000
RRM ₅	40,000
RRM ₆	73,000

RCM = the Hoover Dam average release rate (in cubic feet per second) during the current month determined from solution of the volumetric equation given below.

FCR = the Hoover Dam average release rate (in cubic feet per second) required for flood control during the current month.

NCM = the number of days in the current month.

NRM = the number of remaining days from the present through 31 July excluding the current month.

BSM = the Lake Mead water loss (in million acre-feet) to bank storage during the current month through 31 July.

- EVM** = the Lake Mead water loss (in million acre-feet) due to evaporation at the lake surface during the current month through 31 July.
- BSP** = the Lake Powell net water loss (in million acre-feet) due bank storage during the current month through 31 July.
- EVP** = the Lake Powell net water loss (in million acre-feet) due to evaporation and precipitation during the current month through 31 July.
- SNC** = The Lake Mead net water withdrawal (in million acre-feet) due to consumptive use by the Southern Nevada Water Project during the current month through 31 July.

Detailed procedure and equations used to define the terms BSM, EVM, BSP and EVP are presented in Exhibit 2.

The volumetric equation applied to determine RCM is as follows:

$$FI = SSM + SSP - 1.5 + 1.9835 \times 10^{-6} ((RCM \times NCM) + (RRM_N \times NRM)) + BSM + EVM + BSP + EVP + SNC$$

Solution of equality of the volumetric equation is iterative using progressively increasing step values of RRM_1 through RRM_6 . RRM_N must be the smallest step value satisfying the requirement that RCM must be equal to or less than RRM_N .

The required Hoover Dam flood control release FCR during the current month is determined according to either condition a or b as follows:

(a) if RCM is greater than or equal to RRM_{N-1} then, $FCR = RCM$

or

(b) if RCM is less than RRM_{N-1} then, $FCR = RRM_{N-1}$

EXHIBIT 2

WATER LOSS EQUATIONS FOR

LAKES MEAD AND POWELL

July 1982

LAKE MEAD

$$BSM = 0.065 (SSM - 1.5)$$

$$EVM = (NEM) (AAM \times 10^{-6})$$

where:

BSM = the Lake Mead water loss (in million acre-feet) to bank storage during the current month through 31 July.

SSM = current storage space (in million acre-feet) in Lake Mead below elevation 1229.0 feet.

EVM = the Lake Mead water loss (in million acre-feet) due to evaporation at the lake surface during the current month through 31 July.

AAM = the average reservoir surface area (in acres) on Lake Mead from the current month through 31 July.

MEM = the average evaporation depth (in feet) for Lake Mead from the current month through 31 July as follows:

<u>Month</u>	<u>Evaporation Rate (feet)</u>
January	0.36
February	0.33
March	0.37
April	0.46
May	0.53
June	0.64
July	0.80

LAKE POWELL

BSP = 0.15 (SSP)

BSP = the Lake Powell water loss (in million acre-feet) to bank storage during the current month through 31 July.

SSP = current storage space (in million acre-feet) in Lake Powell below elevation 3700.0 feet.

$$EVP = (C_1E^4 + C_2E^3 + C_3E^2 + C_4E + C_5) (SM)$$

where:

EVP = the Lake Powell net water loss (in million acre-feet) due to evaporation and precipitation during the current month through 31 July.

E = the average water surface elevation of Lake Powell (in feet above mean sea level) from the current month through 31 July.

SM = a coefficient for the current month through 31 July as follows:

<u>Period</u>	<u>Coefficient</u>
January - July	0.536
February - July	0.486
March - July	0.439
April - July	0.380
May - July	0.313
June - July	0.222
July	0.118

Constants are as follows:

$$C_1 = - 1.06524 \times 10^{-12}$$

$$C_2 = 1.68872 \times 10^{-8}$$

$$C_3 = - 9.51439 \times 10^{-5}$$

$$C_4 = 0.229605$$

$$C_5 = - 2.0211176 \times 10^2$$

The equations in Exhibit 2 may be revised based on prudent engineering analysis without requiring formal revision of the total field working agreement. Revision would be effective following written agreement between the Regional Director and the Division Engineer. All revised versions of Exhibit 2 shall be labeled indicating the date of revision before being effective.