On-Farm Efficiency Conservation Program

PROGRAM DESCRIPTION

Imperial Irrigation District
September 2015
Background

In October 2003, Imperial Irrigation District (IID) entered into the Quantification Settlement Agreement (QSA) and Related Agreements. As part of these agreements, IID agreed to a long-term transfer of water to the San Diego County Water Authority and the Coachella Valley Water District.

To enable IID to meet its water transfer obligations pursuant to the agreements, IID and its agricultural water customers need to develop a total of 303,000 acre-feet of water per year through an integrated program of on-farm and delivery system conservation.

In addition to its water transfer obligations, IID may use conserved water to satisfy the requirements of the Inadvertent Overrun and Payback Policy as contained in pages 16 through 19 of the Record of Decision for the Colorado River Water Delivery Agreement issued on October 10, 2003. IID is also able to create conserved water that qualifies as ICS or Intentionally Created Surplus as defined in the Lower Colorado River Basin Intentionally Created Surplus Forbearance Agreement between the State of Arizona, the Palo Verde Irrigation District, the Imperial Irrigation District, the City of Needles, the Coachella Valley Water District, the Metropolitan Water District of Southern California, the Southern Nevada Water Authority and the Colorado River Commission of Nevada dated December 3, 2007. Additionally, IID may create conserved water through an integrated program of on-farm and delivery system conservation for any other use determined appropriate for the conserved water by IID.

This document describes the on-farm efficiency conservation program for IID. All documents applicable to this program are available upon request from the Water Department, located at IID Headquarters, 333 E. Barioni Blvd., Imperial, California 92251 and on the IID website at www.iid.com/onfarmconservation.
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1. **Purpose**

The purpose of this Program Description is to document the structure and various aspects of the On-Farm Efficiency Conservation Program (Program). The document describes the overall structure of the Program and its components, including Program organization and administration, the enrollment process, eligible conservation measures, efficiency conservation payments for delivered water reductions, monitoring and verification procedures.

2. **Organization and Administration**

IID will be responsible for the administration of the Program. The Water Department Manager will direct the Program. IID will cooperate with participants to implement and evaluate the Program.

A Technical Review Committee will be appointed to address technical concerns that cannot be resolved by participants and IID. The Technical Review Committee composition and guidelines are specified in Appendix F.

3. **Enrollment Process**

   3.1. **Overview and Schedule**

The enrollment process involves: (1) solicitation by IID; (2) submittal of completed field proposals by potential participants; (3) evaluation and selection of completed proposals by IID; and (4) contracting by selected participants and IID for Conservation Measure (CM) implementation and associated Contracted Delivered Water Reduction (CDWR). The resulting agreement is referred to as the On-Farm Efficiency Conservation Agreement (Conservation Agreement).

   3.2. **Solicitation Process**

IID will advertise the Program to IID water users and landowners through IID’s website, mailings, meetings and any other appropriate means. Advertisements will be released and/or published as frequently as IID determines is necessary and appropriate to implement the program. The advertisement will provide a brief program summary to the extent there is space available in the advertisement to do so.

IID will prepare solicitation materials as needed to provide information enabling potential participants to estimate payments for different field sizes, crops, season lengths, applicable CMs, and CDWR. The solicitation materials may include the following:

- Program Summary
- Frequently Asked Questions
- On-Farm Efficiency Conservation Agreement Template
- Optional Pre-Application Baseline Request Form
- Contact Information of Assigned IID Staff and Resources
- Proposal Forms and Instructions
3.3. Application Process
Applicants are responsible for reviewing the solicitation materials, selecting fields and associated CMs for enrollment, and completing the Applicant Information Form and Conservation Measure Proposal Form. Applicants may request preliminary baselines for fields and crops of interest using the optional Pre-Application Baseline Request Form.

Applicants must complete and submit the Applicant Information Form and Conservation Measure Proposal Form in order to apply for enrollment in the Program. In the event an applicant is seeking to enroll a CM that involves multiple fields and/or gates and/or crops, the Conservation Measure Proposal Form shall include maps/sketches/diagrams necessary to identify the layout of the CM and fields/gates/crops. Applicants that have not completed these forms will not be eligible for enrollment in the Program.

Landowners and tenants may apply for enrollment in the Program by performing all Program requirements directly. The contracting requirements for landowners and tenants are provided below. For those enrolled in the Program, sample lease/sub-lease agreement provisions are provided in Appendix G.

3.4. Selection Process
As proposals are received, IID will determine eligibility for participation in the Program in accordance with the following:

- Water availability and water delivery charges must be current for the field(s) identified in the proposal.
- The minimum annual or seasonal CDWR shall be 0.08 acre-feet per acre and 8 acre-feet.

Proposals must satisfy the requirements above to be eligible for participation in the Program. Additionally, proposals may be determined to be ineligible for participation due to prior failure to perform by the applicant in this or other IID programs. Proposals determined to be ineligible will be returned to the applicants with an explanation of the determination. An applicant can appeal the decision to the Technical Review Committee. Applicants may be provided an opportunity to resubmit proposals.

IID will accept and process proposals on an ongoing basis each calendar year. Proposals resulting in higher CDWR and greater administrative efficiency may be given preference. After assigning preference to proposals based on total proposed CDWR and administrative efficiencies, IID may randomly select proposals until the estimated aggregate CDWR is sufficient to meet Program goals based on IID’s projections.

IID will determine the CDWR and evaluate those instances where administrative efficiencies will serve as part of the selection process. IID will review the crop for each proposed field, calculate the Delivered Water Baseline and perform an independent assessment of potential CDWR based on the crop(s). The specifications for the Delivered Water Baseline and CDWR are provided in Appendix B.
applicant receives the Baseline and the CDWR determined by IID, the applicant may opt for a data consultation with IID to review and correct any data found to be in error. An applicant can appeal results of the data consultation process to the Technical Review Committee.

Following the selection process of eligible proposals, IID will notify unselected applicants that their proposals were not selected, but will be held for consideration in the event that additional proposals are needed to meet Program goals. For instance, additional proposals may be selected if the contracting process, described in the following section, results in fewer Conservation Agreements and/or aggregate CDWR than anticipated to satisfy Program goals.

3.5. Contracting Process

Once selected, based on its assessment, including consideration of the CDWR proposed by the applicant and the Program needs, IID will offer a Conservation Agreement to the applicant. The proposed Conservation Agreement will provide the agreement term, Delivered Water Baseline, and the CDWR determined by IID (which may differ from applicant’s proposed CDWR). Landowners and tenants may participate in the program and enter into the Conservation Agreement directly with IID. Any tenant wishing to enter into a Conservation Agreement must have a signed Landowner Consent and Assumption Agreement, attached as Exhibit D of the Conservation Agreement. Proposals not resulting in a Conservation Agreement will be abandoned but may be resubmitted.

4. Eligible Conservation Measures

4.1. Overview

A wide range of CMs are available to growers considering improvements to agricultural water management as part of the Program. Suitable CMs for a given field vary based on the crop grown, soil type, irrigation method, delivery system, field size and slope, and other factors. It is the goal of the Program to provide participants the greatest degree of flexibility possible in selecting CMs for the achievement of efficiency conservation.

4.2. Conservation Measure Eligibility Requirements

The range of CMs that may be implemented by participants is unlimited, except CMs must demonstrate efficiency conservation verifiable by IID. In other words, CM implementation must result in reductions such as less tailwater (and in some cases, tilewater or evaporation) and not decreased crop yields. IID has identified a list of CMs in Appendix D that may be implemented by participants in the Program. This is not an exhaustive list and is intended only to identify CMs that IID has determined to be appropriate CMs from which efficiency conservation can be verified. Standards and specifications for CM implementation are provided in Appendix E.
4.3. Process for Proposal of Additional Conservation Measures

New or additional CMs may be proposed by Program applicants; however, eligible CMs must be approved by IID for inclusion in the Program. Proposals for new CMs will be evaluated based on the following considerations:

- Demonstrated effectiveness – The proposed CM must be based on a demonstrated method of reducing tailwater, excess deep percolation, or other losses. It is preferred that the proposed CM be demonstrated conclusively in the Imperial Valley or other areas with sufficiently similar conditions and be suitably applied. However, IID may consider new innovations, provided that they are accompanied by a clear description of how the CM will result in efficiency conservation.
- No special administrative requirements – The proposed CM must not cause an undue burden to IID with respect to the administration of the Program. The CM must be observable for verification purposes, it must result in a measurable reduction in deliveries relative to the Delivered Water Baseline, and it must be amenable to the existing structure of the Program, including the payment structure and other aspects of the Program.

Anyone interested in requesting new CMs must propose such CMs on the Conservation Measure Proposal Form required for participation in the Program. Proposals involving new CMs should include a description of the CM that describes the physical, operational, and/or management changes that will be implemented, the mechanism by which efficiency will be increased (e.g., reduced tailwater production), and an estimate of the amount of CDWR that will be achieved for crops that will be grown on the field. These proposals should also include a map/sketch/diagram necessary to identify the layout of the CM and fields/gates/crops.

5. Efficiency Conservation Payments

Under this Program, periodic efficiency conservation payments will be made based on the amount of water conserved in accordance with the Conservation Agreement. Under no circumstances shall participants receive final payment prior to verification by IID that all Program requirements, including the Conservation Agreement obligations, have been met. The specifications for the efficiency conservation payments are provided in Appendix B.

6. Monitoring and Verification Procedures

6.1. Objectives

The objectives of monitoring and verification as part of the Program are to document the implementation of CMs on the Participating Field(s), to verify the Actual Delivered Water Reduction (ADWR), and to ensure compliance with Program requirements.
6.2. Verification and Monitoring of CM Implementation and Operation
Verification that CMs are implemented includes documenting that proposed physical improvements are installed and operating and/or proposed practices are implemented on participating fields, as well as monitoring changes in irrigation deliveries resulting from CM operation. The frequency of field visits by IID staff, its designees, or other monitoring procedures will be at IID’s discretion. IID staff or its designees will visit fields to verify that CMs are constructed, operated and/or implemented according to Program standards as described in Appendix E. Field visits may be made during irrigation events to verify that CMs are being operated and/or implemented according to Program standards.

6.3. Verification of ADWR
ADWR will be calculated in accordance with Appendix B for the individual Participating Field(s) on a monthly, seasonal, and/or annual basis, as appropriate. The aggregate ADWR will be summed for all enrolled fields for each calendar year to verify on-farm efficiency conservation for the Program as a whole. An appeal of the ADWR for an individual field may be submitted to the Technical Review Committee.

7. Conservation Agreement Specifications

7.1. Midpoint Meeting and Termination
Upon written request from IID or Conserving Party, IID and Conserving Party will have a midpoint meeting to review the CDWR and ADWR, to the extent the ADWR can be calculated or estimated, for the Participating Field(s). If the Conservation Period is fully within a single Calendar Year, this midpoint meeting shall occur at or as near to the midpoint of the Conservation Period as possible. If the Conservation Period spans two Calendar Years, this midpoint meeting shall occur at or as near to the end of the Calendar Year as possible. If IID determines that Conserving Party is not on target to achieve the CDWR as adjusted by the Tolerance Amount, Conserving Party shall have seven (7) calendar days of such meeting within which to appeal such determination to the Technical Review Committee. If no appeal is made or in the event the Technical Review Committee confirms IID’s determination, either IID or Conserving Party may terminate the Conservation Agreement upon providing sixty (60) days prior written notice. Failure to provide written notice shall be a breach of the Conservation Agreement. Alternatively, IID and Conserving Party may mutually agree to modify or amend the Conservation Agreement in accordance with section 12 of the Agreement. Any such request to amend will not be unreasonably refused.

7.2. Noncompliance and Cure.
If IID determines at any time during the term of the Conservation Agreement that Conserving Party is in noncompliance or breach of the Agreement, IID will notify Conserving Party of such determination in accordance with the Agreement. Conserving Party shall have seven (7) calendar days from the date of IID’s notification of noncompliance or breach within which to make its appeal to the Technical Review Committee. If no appeal is made, Conserving Party must cure any noncompliance or breach within seven (7) calendar days from the date of such notice from IID. If
Conserving Party appeals and the Technical Review Committee upholds IID’s determination, Conserving Party must cure any noncompliance or breach within seven (7) calendar days from the date of the Committee’s decision. If the noncompliance or breach is not timely cured, IID may take or require reasonable measures to ensure operation and implementation of the Conservation Measure and may withhold payments to Conserving Party. In addition, Conserving Party shall be liable to IID for any resulting damages suffered by IID as a result of the noncompliance or breach, including reimbursement for administrative expenses associated with the remedy of any noncompliance or breach. Nothing contained herein shall preclude the IID from exercising any other available remedy in law or equity including, but not limited to, lien procedures authorized under Water Code section 25806, and specific performance. In addition, noncompliance or breach of the Conservation Agreement may affect Conserving Party’s eligibility for future voluntary programs offered by IID.

8. Participant Support System

Participants may view total deliveries to the Participating Field(s) through the TruePoint web portal, IID’s delivery tracking system, which any agricultural customer can access through http://mywateraccount.iid.com. For more information regarding the On-Farm Efficiency Conservation Program and participant information and support, visit the Program website at www.iid.com/onfarmconservation.
Appendix A: Additional Defined Terms

1. **Actual Delivered Water Reduction (ADWR):** The actual acre-feet per acre reduction in Delivered Water relative to the Delivered Water Baseline resulting from the Conservation Measure during the Conservation Period that IID verifies and calculates for the Participating Field(s) in accordance with Appendix B.

2. **Annual Actual Delivered Water Reduction (Annual ADWR):** The ADWR calculated for a Calendar Year in accordance with Appendix B.

3. **Annual Contracted Delivered Water Reduction (Annual CDWR):** The CDWR calculated for a Calendar Year in accordance with Appendix B.

4. **Baseline Consumptive Use Fraction or Baseline CUF:** The Consumptive Use Fraction from which the Delivered Water Baseline is calculated. The Baseline CUF is a composite of Consumptive Use Fractions computed for historical Crop Seasons determined by IID to be representative of the Crop Seasons identified in Exhibit A of the Agreement.

5. **Conservation Measure or CM:** As specified in Exhibit C of the Agreement.

6. **Consumptive Use Fraction or CUF:** The ratio of Net Evapotranspiration to Crop-Field History determined for a given Crop Season.

7. **Calendar Year:** Any full or partial calendar year falling within the Term of the Agreement.

8. **Conservation Agreement or Agreement:** A fully executed On-Farm Efficiency Conservation Agreement with IID and Conserving Party for participation in the Program.

9. **Conserving Party:** The person(s) or entity(ies) entering into the Conservation Agreement for participation in the Program.

10. **Contracted Delivered Water Reduction (CDWR):** The contracted acre-feet per acre reduction in Delivered Water relative to the Delivered Water Baseline resulting from the Conservation Measure that IID and Conserving Party agree is the potential ADWR for the Participating Field(s) during the Conservation Period.

11. **Crop-Field History:** The average Delivered Water history for the Crop Seasons ending during the period 10 years immediately preceding the first year of the Term of the Agreement based on IID’s Delivered Water and crop records for the Participating Field(s) or historical records where necessary and as determined by IID, which may be adjusted at the sole discretion of IID, upon consultation with Conserving Party.

12. **Crop Season:** The entire period of time over which a single crop begins and ends. For an annual crop (crops that have one year or less between actual planting and actual final harvest dates), the Crop Season begins on the date of the actual first irrigation following the actual final harvest date of the previous crop and ends with the actual final harvest date. For multi-year crops (e.g., alfalfa, Bermuda, citrus, asparagus), the Crop Season consists of one of the following, whichever applies: (1) a single calendar year, or (2) the time period beginning with the actual first irrigation following the previous crop and ending December 31 of that Calendar Year, or (3) the time period between January 1 of the final Calendar Year of the crop and the actual final harvest date.
13. **Delivered Water**: The volume or equivalent depth (volume per unit area, e.g., acre-feet per acre), as measured by IID, of irrigation water delivered by IID to the Participating Field(s).

14. **Delivered Water Baseline or Baseline**: The Delivered Water measurement starting point for the Participating Field(s) used as a basis against which other calculations are made. The calculation for the Baseline is made in accordance with Appendix B.

15. **Equitable Distribution Plan or EDP**: A plan/policy adopted by IID describing the manner in which water shall be allocated or apportioned to eligible lands pursuant to the California Irrigation District Law, as may be amended and in effect from time to time during the Term of the Agreement, and any amendments, modifications, and revisions to that plan/policy or superseding plan/policy adopted by IID pursuant to the California Irrigation District Law, as the same may be amended and in effect from time to time during the Term of the Agreement.

16. **Field ID**: A unique code assigned by IID to each field served by IID water delivery facilities and identified in Exhibit A of the Agreement.

17. **Historical Net Evapotranspiration**: Evaporation prior to the actual planting date plus total evapotranspiration minus effective precipitation for crop seasons in the Crop-Field History.

18. **Net Evapotranspiration**: Evaporation prior to the actual planting date plus total evapotranspiration less effective precipitation for a Crop Season subject to the Agreement.

19. **On-Farm Efficiency Conservation**: The reduction of Delivered Water to the Participating Field(s) through the Conservation Measure.

20. **Participating Field(s)**: Those fields enrolled in the Program and specifically identified in Exhibit A of the Conservation Agreement.

21. **Seasonal ADWR**: The ADWR over a Crop Season.

22. **Technical Review Committee**: The committee identified in the Program Description and subject to the parameters of Appendix F.
Appendix B: Specifications for Program Requirements, Calculations and Implementation

1. Introduction
This Appendix provides the specifications for the Crop-Field History, Conservation Period, Delivered Water Baseline, CDWR, ADWR, payment and interface with the Equitable Distribution Plan for participation in the Program and pursuant to the Conservation Agreement. The historical Crop Season data provided in Exhibit B of the Conservation Agreement represents estimated historical water deliveries normalized for Crop Season lengths and weather conditions for each Participating Field(s). Data and calculations in Exhibit B of the Conservation Agreement, calculated in accordance with this Appendix B, shall be augmented and/or modified (pursuant to written agreement of the Parties) if crops not shown on Exhibit A are grown during the Term of the Conservation Agreement or if actual planting and final harvest dates change from those set out in Exhibit A of the Agreement.

2. Crop-Field History
   a. The Crop-Field History, Net Evapotranspiration, Historical Net Evapotranspiration, Consumptive Use Fraction, and Baseline Consumptive Use Fraction are as defined in Appendix A.
   b. Table B-1 in Exhibit B of the Conservation Agreement contains the Participating Field(s), crop, acreage, plant date, harvest date and IID’s calculation of the Baseline CUF for each crop to be grown on the Participating Field(s) as identified in that Exhibit B.
   c. Table B-2 in Exhibit B of the Conservation Agreement contains the Participating Field(s), crop, acreage, first pre-irrigation date, first crop irrigation date, last irrigation date, and CUF for historical Crop Seasons recorded at the Participating Field(s). The Baseline CUF for crops grown during the Conservation Period other than as provided for in Table C-1 will be determined from Table C-2.

3. Conservation Period
   a. The Conservation Period is the time period during which On-Farm Efficiency Conservation occurs on the Participating Field(s) under the Program and is used to calculate the Baseline and the Seasonal ADWR.
   b. The Parties may mutually agree in writing to shorten or extend the Conservation Period under certain circumstances. Examples may include: the previous crop was not harvested due to crop failure; the final crop was not harvested due to crop failure; or Conserving Party had no control over some water deliveries following the previous crop’s final harvest.

4. Calculation Procedure for Delivered Water Baseline and Adjustments
   a. The Baseline will be computed as the Net Evapotranspiration projected for the Crop Season or Calendar Year divided by the Baseline CUF. Sample calculation:
      Assume that the average Crop-Field(s) History is 10 acre-feet per acre, the Historical Net Evapotranspiration for the Participating Field(s) is 8 acre-feet per acre, and the Net Evapotranspiration for the Crop Season is 7 acre-feet
per acre. The Baseline CUF would be 8/10 and the Baseline would be 7/0.8, or 8.75 acre-feet per acre.
b. The Net Evapotranspiration for the Conservation Period will be projected for each crop identified for the Participating Field(s) at the beginning of the Crop Season based on the expected dates of planting and final harvest date set forth in Exhibit A. The Net Evapotranspiration for the Conservation Period shall be recalculated at the end of the Crop Season based on the actual planting and final harvest dates and actual weather conditions and the Baseline will be adjusted based on the revised Net Evapotranspiration.

5. **Contracted Delivered Water Reduction**
   a. The CDWR, in acre-feet/acre, may be based on the Crop-Field History, the crop to be grown, and the Conservation Measure to be implemented under this Agreement.
   b. The CDWR for the Participating Field(s) is provided by Conserving Party in Exhibit B of the Conservation Agreement.
   c. IID will calculate the CDWR for the Conservation Period within any Calendar Year less than a full calendar year falling at the beginning or end of the Term of the Agreement as the CDWR pro-rated based on the equivalent volume of water to the portion of the Baseline calculated as applicable during the Conservation Period within that Calendar Year divided by the total Baseline.

6. **Seasonal and Annual Actual Delivered Water Reduction**
   a. Following the end of each Crop Season, IID will compute the total recorded Delivered Water on the Participating Field(s). The Seasonal ADWR, in acre-feet per acre, will be calculated as:
      \[ \text{Seasonal ADWR (acre-feet/acre)} = (\text{Baseline} - \text{Delivered Water}) \]
      Sample calculation:
      Assume the Baseline is 8.75 acre-feet per acre and the Delivered Water is 7.75 acre-feet per acre. The Seasonal ADWR would be 1.0 acre-feet per acre.
   b. When the CUF exceeds 0.95 acre-feet per acre, the ADWR shall be calculated as: \[ \text{Delivered Water Baseline} - (\text{Net Evapotranspiration} / 0.95 \text{ acre-feet per acre}) \]
   c. ADWR will be calculated by IID monthly for the Participating Field(s) to support overall Program administration by IID. Monthly accounting allows for determination of Seasonal ADWR for partial Crop Seasons at the beginning or end of the Conservation Period and for Calendar Years during the Term of this Agreement that may include one or more partial or full Crop Seasons.
   d. If the Conservation Period begins while a Crop Season is in progress, IID will determine the Seasonal ADWR for the remaining portion of the first Crop Season as follows:
      i. The Baseline for the remainder of the first Crop Season following the Start Date of the Conservation Period will be determined based on the full Crop Season and Delivered Water for the Crop Season in progress as of the Start Date. The Baseline for the full Crop Season will be calculated in accordance with the calculation for Delivered Water Baseline above.
      ii. The total Delivered Water prior to the Start Date of the Conservation Period following the actual harvest date of the prior crop will be summed.
iii. The difference between the Baseline for the full Crop Season and the total Delivered Water prior to the Start Date of the Conservation Period will be the Baseline for the remaining portion of the Crop Season.

iv. After determining the Baseline for the remaining portion of the Crop Season in progress as of the Start Date of the Conservation Period, the Seasonal ADWR will be determined as the Baseline minus the total Delivered Water during the remainder of the Crop Season in progress as of the Start Date.

Sample calculation:
Assume the Baseline for the full Crop Season is 8.75 acre-feet per acre, as calculated in the sample calculation above. Assume the total Delivered Water prior to the Start Date following the harvest of the prior crop is 4.0 acre-feet per acre. The Baseline for the remaining portion of the Crop Season is 8.75 - 4.0, or 4.75 acre feet per acre.
Assume the total Delivered Water during the remainder of the Crop Season is 3.75 acre-feet per acre. The Seasonal ADWR is 4.75 – 3.75, or 1.0 acre-feet per acre.

e. If a Crop Season on a Participating Field(s) begins in one Calendar Year and ends in another, IID will allocate the Seasonal ADWR between the two Calendar Years as follows:

i. The Baseline for the full Crop Season will be calculated in accordance with the calculation for Delivered Water Baseline above.

ii. The Baseline will be distributed across months within the Crop Season based on the average percent of total seasonal Delivered Water occurring in any given month for Field(s)s district-wide with the same crop, soil, planting month, and harvest month.

iii. The Baseline for each partial Crop Season will be calculated by adding the distributed monthly values for the months falling within each Calendar Year.

iv. After determining the Baseline for each partial Crop Season, the Seasonal ADWR for each partial Crop Season will be determined as the Baseline minus the total Delivered Water during the partial Crop Season. The Annual ADWR will then be determined as the sum of Seasonal ADWR for all partial or full Crop Seasons within the Calendar Year. Sample calculation:
Assume the Baseline for the full Crop Season is 8.75 acre-feet per acre, as calculated in the sample calculation above. Assume that the Baseline for the full Crop Season is distributed across months within the Crop Season such that a total of 4.0 acre-feet per acre falls within one Calendar Year (Year 1), and 4.75 falls within the subsequent Calendar Year (Year 2). The Baseline for Year 1 is 4.0 acre-feet per acre; the Baseline for Year 2 is 4.75 acre-feet per acre. Assume the Delivered Water for the partial Crop Season during Year 1 is 3.5 acre-feet per acre and the Delivered Water for the partial Crop Season during Year 2 is 4.5 acre-feet per acre. The Seasonal ADWR for Year 1 is 4.0 – 3.5, or 0.5 acre-feet per acre. The Seasonal ADWR for Year 2 is 4.75 – 4.5, or 0.25 acre-feet per acre.

v. For multi-year Conservation Periods beginning at crop planting and/or ending at crop harvest, partial Crop Seasons, and therefore partial Calendar Years, may occur at the start and/or end of the Conservation Period. In these cases,
the Baseline will be calculated using the monthly distribution procedure set forth herein.

vi. The Seasonal ADWR will be summed over the Calendar Year to calculate the Annual ADWR. If the Conservation Period is a single Crop Season lasting less than one year, the Annual ADWR will equal the Seasonal ADWR.

7. Delivered Water Reduction for Conservation Measures Serving More Than One Field(s)

a. Participating Field(s) may be served by a Conservation Measure that also serves other fields simultaneously. All served fields (including the Participating Field(s) under the Agreement) may be enrolled in the Program under separate, concurrent Agreements or under a single combined Agreement.

8. Tolerance Amount for Contracted Delivered Water Reduction

a. The Tolerance Amount will be calculated as a fixed percentage, called the Tolerance Percent, times the CDWR:

   \[
   \text{Tolerance Amount (acre-feet/acre)} = \frac{\text{Tolerance Percent}}{100} \times \text{CDWR}. 
   \]

b. The Tolerance Amount allows Conserving Party flexibility in meeting the CDWR. The Tolerance Percent is set by IID and specified in section 6 and Exhibit B of the Conservation Agreement.

c. Conserving Party is obligated to provide a minimum Annual ADWR defined as CDWR minus Tolerance Amount, and a maximum Annual ADWR equal to CDWR plus Tolerance Amount. IID may choose to, but in no event shall be obligated to, pay for Annual ADWR exceeding this amount if it determines that it has a need for the additional conserved water.

9. Efficiency Conservation Payment

a. Conserving Party shall, by implementing the Conservation Measure, reduce the Delivered Water to the Participating Field(s) in an amount at a minimum equal to the CDWR minus the Tolerance Amount subject to the payment provisions set forth in this Appendix B.

b. Efficiency conservation payments made by IID to Conserving Party under this Program shall be based on the payment rate provided in Exhibit B of the Conservation Agreement as set and approved by the IID board of directors. If increases in the payment rate are formally established by IID during the term of the Agreement, the higher payment rate shall be used for any remaining payments for ADWR.

c. Disagreements over IID’s calculation of the efficiency conservation payments may be appealed to the Technical Review Committee.

d. If all obligations under the Conservation Agreement are being performed by Conserving Party and there exists no dispute or disagreement between IID and Conserving Party at that time, payments for ADWR shall be made by IID to Conserving Party.

e. If the Conservation Period is one year or less, payment shall be made in two parts. The first payment shall be made by IID to Conserving Party on the first quarterly date (April 1, July 1, October 1 or January 1), or as soon thereafter as IID can issue payment, following the midpoint (50% mark) of the Conservation Period. The first payment will be in an amount equal to 50% of the estimated Annual ADWR to the Participating Field(s) achieved to that point as determined.
and estimated by IID. The final payment shall be made on the first quarterly date (April 1, July 1, October 1 or January 1), or as soon thereafter as IID can issue payment, following the end of the Conservation Period. The final payment amount will be determined based on IID’s calculation of the Annual ADWR less the amount paid, if any, to Conserving Party in the first payment.

f. If the Conservation Period is more than one year, payment shall be made on a biannual basis of each Calendar Year. The first payment of each Calendar Year shall be made by IID to Conserving Party on July 1, or as soon thereafter as IID can issue payment; except that for a Conservation Period beginning later than January 1, and therefore resulting in a partial Calendar Year, the first payment shall be made on the first quarterly date (April 1, July 1, October 1 or January 1), or as soon thereafter as IID can issue payment, following the midpoint (50% mark) of the partial Calendar Year. The first payment will be in an amount equal to 50% of the estimated Annual ADWR to the Participating Field(s) achieved to that point as determined and estimated by IID. The final payment of each Calendar Year shall be made on January 1, or as soon thereafter as IID can issue payment; except that for a Conservation Period ending earlier than December 31, the final payment shall be made on the first quarterly date (April 1, July 1, October 1 or January 1), or as soon thereafter as IID can issue payment, following the end of the Conservation Period. The final payment amount of each Calendar Year will be determined based on IID’s calculation of the Annual ADWR less the amount paid, if any, to Conserving Party in the first payment of that Calendar Year.

g. Notwithstanding the above, total payments for any twelve-month period shall not exceed the Payment Rate multiplied by 4 acre-feet per acre.

10. Interface with Equitable Distribution
   a. This section shall only apply when there is an IID apportionment or allocation program being implemented and applicable to the Participating Field(s) under an EDP.
   b. Conserving Party shall hereby assign to IID an equivalent volume of water to the portion of the CDWR estimated as applicable during the Conservation Period within each Calendar Year of the Conservation Period or for another amount mutually agreed upon by IID and Conserving Party upon IID’s approval and discretion. Such assignment shall occur at the earliest time such water is available (e.g. Start Date of Conservation Period, January 1 of the Calendar Year, as appropriate). Water assigned to IID shall be held in a separate accounting as determined appropriate by IID and unavailable for use by Conserving Party. Within a time period determined appropriate by IID prior to the end of each Calendar or the expiration of the Term of the Conservation Agreement, whichever is earlier, IID shall calculate the applicable ADWR. Any difference between the amount assigned to IID and the ADWR shall be returned to Conserving Party.
   c. Delivered Water to the Participating Field(s) shall be in accordance with the EDP and any applicable rules and procedures.
   d. Pursuant to and in accordance with an EDP, any form determined by IID to be necessary for implementation of this Program under an allocation or
 apportionment program shall be submitted for the Participating Field(s) for each Calendar Year of the Conservation Period.
Appendix C: General Specifications for Measurement Equipment (Meters)  
Acceptable to IID

Scope and Purpose:
These specifications provide minimum requirements for meters measuring irrigation deliveries to Participating Field(s) in the Program.

General Description:
In the event a meter is used for participation in the Program, Conserving Party must coordinate and ensure that such meters must meet the following requirements:
- Continuously measure and record the amount of water delivered to the Participating Field(s). Measurements will be made and recorded as determined appropriate by IID.
- Installed downstream of an IID delivery gate.
- Equipped to communicate with IID’s SCADA system via radio telemetry.

Performance Requirements:
The meter shall be designed and constructed so that it will meet the following standard performance requirements:
1. A normal operating range sufficient to accurately measure the water flow passing the flow meter under normal operating conditions. Minimum flow = 0.1 cfs.  
   **Maximum flow = 30.0 cfs. Resolution = 0.10 cfs or better.**
2. Error of not more than 5% of the actual flow.
3. All meter equipment must be rated for 140°F or more.
4. All meter equipment must operate in existing conditions with normally-experienced amounts of silt and trash in IID canals.
5. The meter must have sufficient capacity, without cycling past zero more than once each year, to record the volume (acre-feet) of water diverted in any one calendar year. Minimum requirement for the flow totalizer is 9999.999 acre-feet.
6. All installed meter equipment shall meet or exceed the instructions of the manufacturer(s) of the components.
7. The meter and associated equipment shall not interfere with any function performed by IID operators. For example, nothing shall prevent or interfere with the delivery gate moving from a fully closed position to a fully open position.

Adapted from IID Draft Technical Specifications for SCADA-Equipped Delivery Gate Flow Meter.  
September 21, 2009.
Appendix D: Conservation Measure Descriptions

The following are brief descriptions of CMs that may be implemented as part of the Program. This is not intended to be an exhaustive list of the CMs that may be implemented by Conserving Party. However, any CM not listed below must be approved by IID in writing during the enrollment process. Standards and specifications for CM implementation are provided in Appendix E.

Irrigation Scheduling and Event Management (ISEM)
ISEM consist primarily of management practices, which includes, but is not limited to, use of weather models and soil moisture measurements to estimate crop water requirements and optimize the timing and amounts of irrigation applications, considering such constraints as harvest schedules and water and labor availability. ISEM seeks to optimize such irrigation parameters as flow rate, event duration, application rate, and cut-off time to match crop water needs, soil characteristics, and water availability. ISEM may be combined with other CMs.

Group Deliveries
Control over a group of water delivery gates near one another on the same lateral canal and all fields served by those gates are Participating Field(s) in the Program. This measure allows for arrangements to be made to coordinate water delivery events to these gates to result in an overall reduction in water deliveries to the Participating Field(s). For example, the coordination of concluding a water delivery event early or late at one delivery gate while starting a water delivery event early or late at a nearby gate will reduce water delivery between the two gates. Approval from IID of such measures is necessary for coordination with IID, including coordination with IID throughout implementation of the measure to ensure coordination of unscheduled changes to water deliveries. Conserving Party must ensure that actual delivery volumes are accurately recorded for the correct gates, fields and crops.

Tailwater Recovery Systems with Extended Delivery (TRS)
TRS consist of physical improvements to capture and reuse tailwater coupled with management practices to maximize these results. TRS include the following key components:

- Storage – a means of collecting tailwater for reuse, ranging from a tailwater ditch and small sump to a dedicated tailwater pond.
- Conveyance – a means of conveying collected tailwater back to the head of the field from which it was produced or to another field for reuse. Conveyance may range from a series of drop boxes and culverts for a cascading system to a pump and motor along with a buried pipeline for a permanent system with a dedicated tailwater pond.

A primary management practice associated with successful operation of a TRS is to avoid overloading the system with large tailwater flows and to maximize the use of collected tailwater to offset the irrigation delivery. One way to accomplish this is by
extending the delivery duration. Extended delivery is increasing the duration of the
delivery while simultaneously reducing the delivery flow rate. This is accomplished by
reducing the number of borders or furrows irrigated simultaneously (increasing the
number of sets), thus reducing the flow rate of tailwater coming off of the field.
Extending the delivery duration also provides more time during which to utilize the
collected tailwater to offset irrigation deliveries.

To further illustrate extended delivery, consider the example of an 80-acre field irrigated
in 24 hours with a 15 cfs delivery. For a typical delivery, suppose the following is true:

- Irrigated in four sets of 6 hours each.
- Six 110’ wide borders are irrigated in each set with an inflow of 2.5 cfs each.
- Tailwater volume is 20% of the delivery volume.

Under extended delivery, the grower could reduce the order to 7.5 cfs for the first day
and only irrigate 3 borders at a time, while collecting the tailwater. Then, in order to
complete the irrigation, a total of 8 sets are needed with a total delivery length of 48
hours (8 sets at 6 hours each). On the second day, the grower would reduce the order
to 4.5 cfs and pump back 3 cfs of the accumulated tailwater from the tailwater pond,
irrigating for a total of 24 hours to finish irrigating the field.

The result would be an order of 7.5 cfs for one day (15 acre-feet) plus 4.5 cfs for 1 day
(9 acre-feet), or a total delivery of 24 acre-feet. This is 20% less than the typical order
of 15 cfs for 1 day (30 acre-feet), but the total amount of water applied to the field as a
canal delivery or recirculated tailwater is the same. This example is further illustrated in
Table B-1.

Table B-1. Example of Delivery Characteristics with and without TRS with Extended
Delivery.

<table>
<thead>
<tr>
<th>Irrigation Event Characteristic</th>
<th>Without TRS</th>
<th>With TRS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration</td>
<td>24 hours</td>
<td>48 hours</td>
</tr>
<tr>
<td>Ordered Flow Rate</td>
<td>15 cfs</td>
<td>7.5 cfs (1st day), 4.5 cfs (2nd day)</td>
</tr>
<tr>
<td>Number of Sets</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Set Duration</td>
<td>6 hours</td>
<td>6 hours</td>
</tr>
<tr>
<td>Number of Borders per Set</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Border Width</td>
<td>110 feet</td>
<td>110 feet</td>
</tr>
<tr>
<td>Border Inflow</td>
<td>2.5 cfs</td>
<td>2.5 cfs</td>
</tr>
<tr>
<td>Tailwater Percentage(^1)</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>Canal Delivery Volume</td>
<td>30 ac-ft</td>
<td>24 ac-ft</td>
</tr>
<tr>
<td>Tailwater Delivery Volume</td>
<td>0 ac-ft</td>
<td>6 ac-ft</td>
</tr>
<tr>
<td>Reduction in Canal Deliveries</td>
<td>NA</td>
<td>6 ac-ft (20%)</td>
</tr>
</tbody>
</table>

\(^1\) The tailwater percentage is the amount of applied water that runs off of the field and
either into the drain box (without TRS) or into the tailwater pond (with TRS). In the
example above, the amount of tailwater entering the drain is 20% of the delivery with
the TRS system installed and operating under extended delivery.
Portable TRS
Portable TRS generally consist of a moveable pump, such as a trailer mounted diesel pump or a wheel tractor and a PTO-driven pump discharging into a temporary pipeline such as 10” aluminum mainline. Often, a small sump is dug upstream of the tailwater box to provide a small amount of storage to allow tailwater to accumulate and reduce the risk of the pump running dry.

Permanent TRS
Permanent TRS generally consist of a permanent pump, such as an electric- or diesel-driven vertical turbine lift pump, a permanent tailwater pond, and a buried pipeline to convey pumped tailwater back to the head ditch.

Cascading TRS
Cascading TRS generally consist of little or no storage at the bottom of the field and drop boxes and culverts to allow tailwater to run from the tail end of an uphill field into the head ditch of a downhill field via gravity.

Pressurized Irrigation
Pressurized irrigation systems convey irrigation water to the location in the field of infiltration into the root zone rather than allowing water to run across the soil by gravity to reach the crop. Pressurized irrigation systems can be designed, maintained, and operated to apply water with good uniformity and to avoid tailwater runoff while minimizing deep percolation and evaporation.

Drip Irrigation
Drip irrigation, also known as “trickle” or “micro” irrigation includes a wide variety of low pressure, low volume discharge devices used to apply water at the point of infiltration. The use of Colorado River water with drip irrigation requires adequate filtration to prevent emitter clogging. Typical filter technologies for drip irrigation using Colorado River water include sand media filters and disc filters.

Sprinkler Irrigation
Sprinkler irrigation includes a wide variety of discharge devices ranging from low pressure, low volume to high pressure, high volume used to broadcast irrigation water to the location of use. The use of Colorado River water with sprinkler irrigation requires adequate filtration to prevent nozzle clogging. Typical filter technologies for sprinkler irrigation using Colorado River water include screen filters.

Solid Set Sprinkler Irrigation
Solid set sprinkler irrigation, as most commonly used in the Imperial Valley, is accomplished by laying out aluminum mainline and laterals in the field with impact sprinklers on risers. The sprinkler pipe is typically installed for pre-irrigation and germination, or it may be used for the entire season.
**Center Pivot Irrigation**

Center pivot irrigation is a form of sprinkler irrigation in which a single sprinkler lateral, or series of "spans" is anchored at a single location, typically near the water source, and water is pumped into the span to supply sprinklers on the spans. The spans rotate around the anchor point in a ¼, ½, or a full circle, irrigating the full area under the sprinklers. Where used, center pivot irrigation replaces the former irrigation system rather than only being used for germination or pre-irrigation.

**Level Basin Irrigation**

Level basin irrigation is accomplished by forming level or near-level basins within a field. In the traditional sense, all applied water infiltrates into the soil, with no surface runoff; however, experience has shown that level basin irrigation in the Imperial Valley may require a slight grade to the field and an outlet to allow ponded water to drain. The principle of level basin irrigation is to apply water to each basin as quickly as possible so that it spreads uniformly across the basin and infiltration is uniform. Level basin irrigation generally requires large flows of water, and basin set times are short compared to irrigation of comparatively long, graded borders. Applied water amounts must be matched to soil infiltration rates to avoid excessive ponding that may waterlog or scald the crop.

**Surface Irrigation Optimization**

Measures to improve existing gravity-flow surface irrigation systems that reduce inefficiencies and irrigation delivery requirements. Such measures include field reconfiguration measures, such as major land leveling to optimize field slope, creating compound slopes, constructing level basins and terraces, constructing multiple head ditches to shorten run length, reorienting rows or borders to optimize slope and infiltration and optimizing border width. Other examples of such measures include, but are not limited to, impermeable head ditch liners, gated pipe, surge flow, limited tillage programs or soil amendments to improve infiltration, and the use of surface irrigation modeling software to guide field configuration with irrigation event management.
Appendix E: Standards and Specifications for Conservation Measures

In general, participants are provided a high degree of flexibility in the configuration and components of CMs implemented as part of the Program, provided that the following minimum requirements are met:

- CMs that involve a physical improvement must be completely constructed and operated prior to the period during which the CDWR is to be achieved to ensure that the Actual DWR can be achieved through efficiency improvements.
- CMs that involve a physical improvement must be designed, constructed, and operated according to Industry Standards, as provided by the Natural Resources Conservation Service (NRCS) or another source pre-approved by IID. NRCS standards and specifications for CMs are available upon request.
- CMs that involve a practice, rather than a physical improvement, must be designed and implemented according to IID standards and subject to IID approval to ensure that the ADWR can be achieved through the efficiency practice.
Appendix F: Technical Review Committee

A Technical Review Committee (Committee) will be formed to hear appeals or technical matters requiring special consideration. Committee members may only serve one two-year term, after which the respective alternate fills the position and a new alternate is selected. The composition of and guidelines for the Committee and the appeals process will be as follows:

Committee composition:
- One voting member and alternate appointed by WCAB (not necessarily a WCAB member).
- One voting member and alternate appointed by ICFB (not necessarily a ICFB Board member).
- One voting member and alternate irrigation consultant hired by IID or, alternatively, employed by another agency.
- One non-voting moderator and alternate from an on-farm conservation team to be designated by IID to inform committee members of IID policies and program parameters.
- One secretary and alternate from IID Water Department staff.

Guidelines:
- An appeal or technical review can be requested by Program applicants/participants or by IID only after thorough consultation involving both parties fails to reach a mutually satisfactory resolution.
- To request a technical review, the requesting party must complete an IID-designated form that includes a written description of the circumstances requiring special consideration or appeal. Copies must be provided to both the Committee moderator and the non-appealing party.
- Within 7 calendar days of receipt of a request form, the non-appealing party may also prepare a written statement from the same template to present pertinent facts or views to the Committee. Copies must be provided to both the Committee moderator and the appealing party.
- The moderator will provide Committee members with copies of all documents. Committee members will review such documents independently and provide a brief written opinion to the moderator as whether the matter should be taken up in a formal Committee meeting.
- Within 14 calendar days of receipt of the initial request form, the Committee moderator must inform both parties of the time and place of the scheduled Committee meeting where the matter will be heard. The meeting must be scheduled within 28 calendar days of receipt of the initial request form.
- Both parties may attend the Committee meeting and provide limited verbal statements at the appointed time.
- The Committee may table a review for no more than 14 calendar days to gather further information. The Committee moderator will provide a written decision to both parties within 7 calendar days of the Committee meeting wherein a decision will be stated concerning the matter. The Committee’s decisions are final and
may not be appealed. All determinations made by the Committee are binding. Program applicants may choose to withdraw the proposal or resubmit it with the specified amendments.

- The Committee secretary will provide meeting minutes to the Committee members within 3 working days of each meeting.
Appendix G: Sample Lease/Sub-Lease Agreement Language

This Efficiency Conservation Addendum to Farming Lease ("Addendum") is attached to and constitutes a part of the Farming Lease between _______________, as Landlord/Lessee ("Landlord"), and ________________, as Tenant/Sub-Lessee (the "Tenant"). The terms of this Addendum are hereby incorporated in the ________________ ("Lease") as if set forth in full.

1. Conservation Agreement

   a. Landlord and the Imperial Irrigation District ("IID") entered into that certain IID On-Farm Efficiency Conservation Agreement ________________ (the "Conservation Agreement"), a copy of which is attached hereto as ________________, and incorporated herein as if set forth in full. All initially capitalized terms not otherwise defined in the Lease or this Addendum shall have the same meanings as set forth in the Conservation Agreement. Pursuant to the Conservation Agreement, Landlord, as the Conserving Party, has agreed to reduce the amount of water that IID delivers to the premises demised under the Lease (which is referred to as the Participating Field in the Conservation Agreement) during each Calendar Year by ________ acre feet for each acre contained in the Participating Field (such agreed upon reduction is referred to in the Conservation Agreement as the Contracted Delivered Water Reduction ("CDWR"). In order to achieve the CDWR, Landlord has agreed to implement the Conservation Measures ("CM") specified in Exhibit C to the Conservation Agreement.

   b. The Lease is subject and subordinate to the Conservation Agreement. In the event of a conflict between the provisions of the Lease and the provisions of this Addendum, or the provisions of the Conservation Agreement, this Addendum, and secondarily the Conservation Agreement, shall control.

2. Conservation Measures.

   a. Landlord retains the obligation to implement the following CM (the "Landlord Obligations"): [Identify specific obligations identified on Exhibit D of the Conservation Agreement that Landlord will perform. If Tenant will perform all Conservation Measures, then insert "None".] Tenant hereby assumes all of Landlord's obligations under the Conservation Agreement with respect to achieving the CDWR and performing the CM, other than the performance of the Landlord Obligations. Without limiting the generality of the foregoing, Tenant specifically agrees as follows:

      i. Tenant shall not permit the water delivery gate serving the Participating Field to serve any property other than the Participating Field, nor shall Tenant permit any water delivery gate serving other property to serve the Participating Field (unless otherwise approved by IID).
ii. Except for the Landlord Obligations, Tenant shall construct or install, or cause to be constructed or installed, facilities, equipment, and other physical changes to the Participating Field, as required to implement the CM as specified in Exhibit C to the Conservation Agreement. If required by IID, Tenant shall allow IID to modify, construct, or install delivery or drainage facilities to the Participating Field in accordance with standard IID specifications in order to implement the CM.

iii. Tenant shall utilize only the CM specified in Exhibit C to the Conservation Agreement, consistent with the objective of producing a crop utilizing otherwise normal farming practices.

iv. For each crop season on the Participating Field, Tenant shall provide Landlord and IID information identifying: the crop, planting date, expected final harvest date at time of planting, and actual final harvest date. Such information shall be received by IID within 14 days following the planting date.

v. Tenant shall assure that water conserved is the result of implementing the CM and not a deliberate reduction in crop evapotranspiration and/or crop yield.

vi. All irrigation water delivered to the Participating Field during the Term of the Conservation Agreement shall be measured and reported to IID and Landlord by Tenant. IID shall be responsible for measurement of water delivered through the delivery gate that serves the Participating Field. Any other water delivered to the Participating Field during the Term of the Conservation Agreement shall be measured and reported to IID by Tenant.

vii. Tenant shall allow Landlord and IID physical access to the Participating Field and associated on-farm Delivered Water records for the purpose of assessing compliance with the Conservation Agreement, determining the appropriate "Baseline" and calculating "Actual Delivered Water Reduction". Tenant shall provide, upon request by Landlord or IID, all records documenting the installation, operation, maintenance or other costs associated with the CMs. Tenant agrees that Landlord, IID, and their respective designees shall have the right to enter the Participating Field and, to the extent necessary, other adjacent land owned or leased by Tenant for the purpose of confirming compliance with the Conservation Agreement.

ix. If IID implements a water allocation or apportionment program pursuant to the Equitable Distribution Plan during the Term of the Conservation Agreement, Tenant shall remain responsible for meeting the CDWR, subject to Landlord’s performance of the Landlord Obligations.
x. Tenant shall only grow the following crops on the Participating Field during the first crop season of the Term of the Efficiency Conservation Agreement:

__________________________.

If the Term of the Efficiency Conservation Agreement extends beyond one crop season, tenant shall submit a cropping plan to Landlord and IID listing the crop, planting date, expected final harvest date at time of planting, and actual final harvest date. This information shall be submitted for each crop season following the first crop season and shall be received by Landlord and IID within 14 days of planting date.

3. IID Payment for Conservation Measures

In consideration for the implementation of the Conservation Measures, IID has agreed to pay Landlord certain sums as specified in section 3 of the Conservation Agreement (the "Payment"). In consideration of Tenant's performance of the Conservation Measures as provided in this Addendum, Landlord agrees to pay to Tenant _________ percent of each Payment for Delivered Water Reduction received from IID. Each such Payment shall be made to Tenant promptly following Landlord's receipt of the same from IID. Notwithstanding the foregoing, Landlord shall have no obligation to pay Tenant any of the foregoing Payments received from IID at any time Tenant is in default or breach under the Lease (including this Addendum and Tenant's assumed obligations under the Efficiency Conservation Agreement) or a circumstance exists that, with the giving of notice, the passage of time, or both, would constitute a default or breach under the Lease (including this Addendum and Tenant's assumed obligations under the Efficiency Conservation Agreement); however, if any such default or breach is of a monetary nature, Landlord may, but shall not be obligated to, make such payment to Tenant less the sums owed to Landlord.

4. Noncompliance

a. Failure to Achieve DWR – If Tenant fails to achieve the CDWR, and the reason for such failure is due to Tenant's default or breach of its obligations under the Lease (including this Addendum and the assumed obligations under the Efficiency Conservation Agreement), then in addition to all other rights and remedies that Landlord may have, Tenant shall pay to Landlord the amount of the Payments for Delivered Water Reduction that Landlord would have been entitled to receive from IID had the CDWR been achieved (less the amount thereof that Tenant would be entitled to as provided in section 3, herein). In addition, if Landlord is required to return any Payments for Delivered Water Reduction, all or a portion of which was in turn paid over to Tenant pursuant to section 3, herein, then Tenant shall, immediately upon notice thereof from Landlord, return to Landlord the amount so paid to Tenant.

b. Non-Compliance With Provisions of Efficiency Conservation Agreement – If Landlord determines that Tenant is in non-compliance with the Conservation
Agreement or has breached this Addendum, Landlord may give Tenant notice of such non-compliance or breach, and Tenant shall have five (5) days following delivery of such notice to cure the non-compliance or breach. If the non-compliance or breach is not timely cured, Tenant shall be deemed in default and breach under the Lease, without the need for any additional notice.

5. **Indemnity.**

Tenant shall indemnify, defend and hold Landlord harmless from all claims, losses, damages, liabilities and expenses (including reasonable attorneys’ fees) arising from Tenant’s failure to abide by the provisions of the Conservation Agreement or Tenant’s failure to perform its obligations under this Addendum, including, without limitation, any losses sustained and costs incurred by Landlord pursuant to IID’s exercise of its rights under section 5 of the Conservation Agreement.

6. **Amendment to Efficiency Conservation Agreement**

Landlord reserves the right to amend the Efficiency Conservation Agreement from time to time, and if any such amendment necessitates an amendment to this Addendum, Tenant agrees to amend this Addendum as necessary to conform this Addendum to such amendment to the Efficiency Conservation Agreement.

7. **Ownership of Conservation Measure Improvements.**

If Tenant pays for any Conservation Measure that constitutes an improvement to the Participating Field such that the improvement becomes part of the realty, then such improvement shall become the property of Landlord and shall remain on the Participating Field upon the expiration or earlier termination of the Lease unless Landlord requires Tenant to remove such improvement. If Landlord does not require such removal, then Landlord shall pay to Tenant, upon such expiration or earlier termination of the Lease, the unamortized cost of such improvement, which amortization shall be based upon straight line depreciation of _____ over ____ years; provided, however, Landlord shall have no obligation to make such payment in the case of an early termination of the Lease arising from a default by Tenant under the Lease (including this Addendum and the assumed obligations under the Efficiency Conservation Agreement).

IN WITNESS WHEREOF, Landlord and Tenant have executed this Addendum as of the date of the Lease.

<table>
<thead>
<tr>
<th>LANDLORD:</th>
<th>TENANT:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>By:</td>
<td>By:</td>
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<tr>
<td>Name:</td>
<td>Name:</td>
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<tr>
<td>Title:</td>
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ON-FARM EFFICIENCY CONSERVATION PROGRAM DESCRIPTION – APPENDIX H
SEPTEMBER 2015
ASSIGNMENT AND ASSUMPTION OF IID ON-FARM EFFICIENCY CONSERVATION AGREEMENT

This ASSIGNMENT AND ASSUMPTION OF IID ON-FARM EFFICIENCY CONSERVATION AGREEMENT ("Assignment") is entered into as of ___________________, 20__, among _______________ ("Assignor"), ____________________ ("Assignee") and the Imperial Irrigation District ("IID").

1. Introduction
   a. Assignor and IID are parties to that certain IID On-Farm Efficiency Conservation Agreement recorded on _____________, 20__ in the Imperial County Recorder's Office on ____________________, 20__ as Instrument No. _______________, and/or attached hereto as Exhibit 1 (the "Agreement") pertaining to the real property more particularly described therein (the "Property").
   b. Assignee is acquiring the Property from Assignor. In connection therewith, Assignor desires to assign the Agreement to Assignee and Assignee desires to assume Assignor's obligations under the Agreement.

2. Agreement
   NOW, THEREFORE, for valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:
   a. Assignment. Effective as of the date the Property is conveyed to Assignee (the "Conveyance Date"), Assignor assigns to Assignee all of Assignor's right, title and interest in the Agreement.
   b. Assumption. Assignee accepts the foregoing assignment and assumes all of Assignor's obligations under the Agreement first arising from and after the Conveyance Date.
   c. Release. As of the Conveyance Date, Assignor is released from all liability under the Agreement first arising from and after the Conveyance Date. Assignor is not released from any liability under the Agreement arising prior to the Conveyance Date.
   d. General Provisions.
      1. Attorneys' Fees. In the event of any legal action or proceeding between the parties arising out of this Assignment, the losing party shall pay the prevailing party's legal costs and expenses, including, but not limited to, reasonable attorneys' fees as determined by the court.
      2. Authority. Each party represents and warrants that it has full power and authority to execute and fully perform its obligations under this Assignment, without the need for any further action.
      3. Counterparts. This Assignment may be executed in one or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same agreement after each party has executed such a counterpart.
4. **Governing Law.** This Assignment shall be governed, construed and enforced in accordance with the laws of the State of California.

5. **Successors.** This Assignment shall be binding on and inure to the benefit of the parties and their respective heirs, legal representatives, successors, and assigns.

IN WITNESS WHEREOF, the parties have executed this Assignment as of the date first set forth above.

ASSIGNOR:

___________________________________
By: _______________________________
Name: ______________________________
Title: ______________________________

ASSIGNEE:

___________________________________
By: _______________________________
Name: ______________________________
Title: ______________________________

IID:

___________________________________
By: _______________________________
Name: ______________________________
Title: ______________________________
Exhibit 1

IID On-Farm Efficiency Conservation Agreement