



## **2014 Inadvertent Overrun Payback**

### **Certification Report**

February 26, 2015

#### **Purpose**

As reported in the Bureau of Reclamation's *Colorado River Accounting and Water Use Report – Arizona, California, and Nevada* for calendar years 2011 and 2012<sup>1</sup> (Decree Accounting Reports), the Imperial Irrigation District (IID) incurred inadvertent overruns in these years for which 117,391 acre-feet of payback was required in 2014<sup>2</sup>. In accordance with the Inadvertent Overrun and Payback Policy (IOPP), IID is required to submit a Certification Report to document how IID met its calendar year 2014 payback obligation by implementing the extraordinary conservation measures approved in IID's 2014 Inadvertent Overrun Payback Plan dated August 5, 2013 (see attachments A and B). Each source of payback water and its scheduled use is described below and summarized in Table 4.

#### **IOPP Conservation Measures**

IID implemented the following types of IOPP conservation measures in 2014:

- Main Canal Seepage Interception
- Fallowing
- On-Farm Efficiency

IID's primary objectives in implementing the measures listed above were the satisfaction of its conservation, transfer, and mitigation obligations under the 2003 Quantification Settlement Agreement and Related Agreements (QSA), although implementation schedules and conservation targets were accelerated and increased to meet IOPP obligations. Water conserved through these measures was first applied to meet QSA obligations. Remaining volumes were applied to meet IOPP obligations and then to the creation of Extraordinary Conservation Intentionally Created Surplus (ICS).

#### **Conservation Measure Descriptions, Volumes, and Verification**

Accounting for the consumptive use reduction associated with the following IOPP Conservation Measures is performed relative to IID's diversion at Imperial Dam (Attachment C). The Main Canal Seepage Interception System determines AAC losses using a site specific approach, approximately 2.8% in 2014. Because the Fallowing and On-Farm Efficiency programs are

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<sup>1</sup> <http://www.usbr.gov/lc/region/g4000/wtracct.html>

<sup>2</sup> IID's 2014 payback obligation of 154,738 ac-ft was reduced to 117,391 ac-ft by applying 37,347 ac-ft of early payback in 2013. (See Reclamation's 2013 IOPP Payback Verification letter dated May 5, 2014 – Attachment D.)

spread throughout IID’s water service area, their losses are determined using a valley centroid approach, approximately 3.8% in 2014. Station 60 accuracy, IID’s diversion point for Reclamation accounting purposes, is assumed comparable to All-American Canal accuracy at Pilot Knob. Uncertainty of annual volume for the All-American Canal at Pilot Knob has been demonstrated to have 2.0% accuracy with 95% confidence.<sup>3</sup>

**Main Canal Seepage Interception System**

The Main Canal Seepage Interception System conserved 32,231 ac-ft in calendar year 2014, from which 31,000 ac-ft was transferred to CVWD pursuant to the QSA. All of the remaining 1,231 ac-ft is applied as payback for 2014 IOPP payback obligations. Total metered conservation volumes for 2014 are summarized in Table 1, and main canal losses increased the volume by 888 ac-ft.

**Table 1. 2014 Verified Conserved Water by Seepage Recovery Station in Ac-Ft**

Station	Metered Volume	AAC Losses	Total Conservation
Verde	1,962		
Verde 4	1,736		
Verde 2	903		
Township	474		
Pampas	2,029		
Orita	1,991		
Orita 1	1,174		
Mulberry	941		
Moss	630		
Malva 2	100		
Malva 1	574		
Mesa	78		
Magnolia	302		
Holtville	3,139		
Holtville 7	3,499		
Holtville 6	2,501		
Holtville 2	1,210		
Holtville 1	6,859		
East Highline 14	875		
Warren 2	55		
Dixie 2	97		
Dixie 4	216		
<b>Total</b>	<b>31,343</b>	<b>888</b>	<b>32,231</b>

IID’s Main Canal Seepage Interception System was the first efficiency conservation program to be implemented to meet IID’s water transfer obligations under the QSA and other related agreements. This project consists of the installation and operation of pump stations, collection sumps, and appurtenant structures in open drains that run parallel to certain reaches of main canals located in areas of highly permeable soils. These open drains were constructed along main canals decades ago to intercept and carry seepage to the Salton Sea to relieve adjacent agricultural lands of high water tables associated with canal seepage. The Main Canal Seepage Interception System is estimated to have the capacity to collect 30,000-40,000 ac-ft of seepage water from existing interceptor drains and pump these flows back into the main canals to supply downstream water users and reduce IID’s delivery at Imperial Dam. In total, 22 pumping stations were constructed at the lower ends of interceptor drains and are operated to maintain drain water levels within six inches of historical levels to prevent interference with normal drainage and induction of additional seepage from the main canals. The locations of the 22 pump stations are shown in Figure 1.

Each pump station is equipped with an electromagnetic flow meter and a programmable logic controller with data logging and telemetry capabilities. Data is transmitted via radio to IID’s servers for daily quality control, summary, and archival.

<sup>3</sup> Clemmens, A. and Wahlin, B. (2006). "Accuracy of Annual Volume from Current-Meter-Based Stage Discharges." *J. Hydrol. Eng.*, 11(5), 489–501.

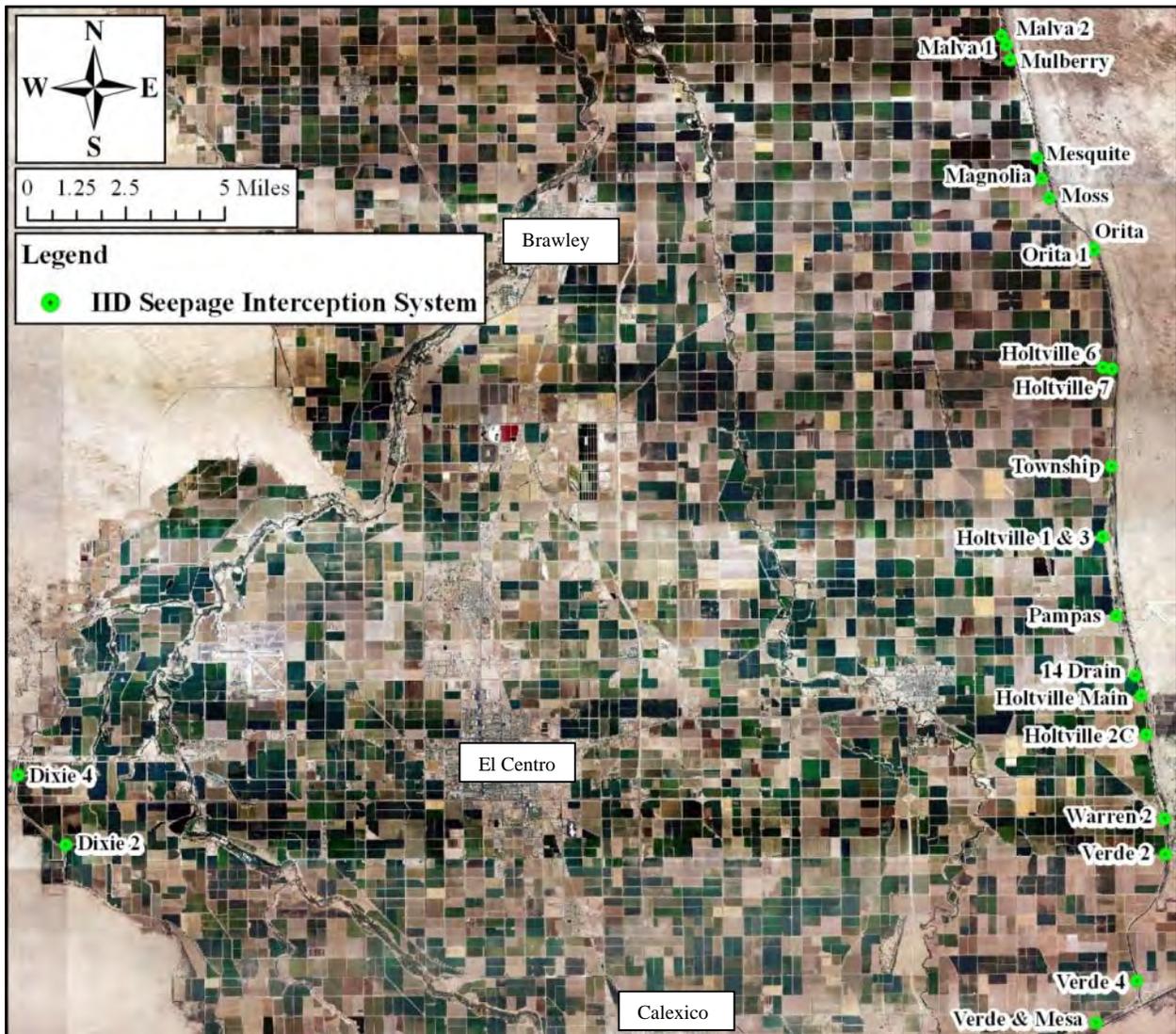


Figure 1. Location of 22 Main Canal Seepage Interception Stations

Reclamation continues to perform semiannual verification inspections (see Attachments E and F) of five percent of the Main Canal Seepage Interception sites and flow data and volume summaries for selected sites were made available to Reclamation. IID also provides Reclamation with quarterly summaries of volumes pumped at each site.

**Fallowing Program**

IID implemented five concurrent or overlapping fallowing programs conserving 298,692 ac-ft in calendar year 2014, from which 149,199 ac-ft were applied to the SDCWA Transfer and Salton Sea Mitigation requirements pursuant to the QSA. Of the remaining 149,493 ac-ft balance, 111,789 ac-ft is applied to IID’s 2014 IOPP payback obligation. The five fallowing programs in effect during the 2014 calendar year and the associated conservation yield from each program are detailed in Table 2. System losses increased the at-field conservation volume by 11,398 ac-ft. For a list of program participants, see IID’s website at [www.iid.com/fallowingprograms](http://www.iid.com/fallowingprograms).

IID’s Fallowing Program is a voluntary program that allows willing landowners and/or lessees to contract with IID to receive payment for forgoing all delivery of irrigation water throughout the

**Table 2. Following Program Conservation Yield in Acre-Feet**

Program	Total At-Farm Conservation	Acreage	At-Farm Conservation in CY 2014	AAC Losses	Total Conservation <sup>4</sup>
2013-2014 FP	194,020	34,008	95,180		
2014 Temporary Land Conversion FP	34,881	6,912	34,881		
2014 CY Western Farm Land FP	40,011	6,606	29,154		
2014 CY FP	46,886	6,364	37,468		
2014-2015 FP	182,196	32,915	90,611		
<b>2014 CY Total</b>		<b>86,805</b>	<b>287,294</b>	<b>11,398</b>	<b>298,692</b>

term of the agreement. The water that otherwise would have been used for irrigation is conserved and becomes available for IID to use for other purposes such as transfer or mitigation under the QSA, overrun payback under the IOPP, or Extraordinary Conservation ICS.

Initial program parameters were established in the Phase I On-Farm Following Program Plan<sup>5</sup> dated March 18, 2004. This document was revised in 2006<sup>6</sup> and again in 2014<sup>7</sup> to accommodate a farm unit based following program. Links to annual following program summary information, including the annual participant agreement templates, can be accessed from IID's water library webpage<sup>8</sup>.

Estimated conservation for each fallowed field is determined from a field-specific baseline calculated from its historical water use. The baseline utilizes a 10-year running average, less the high and low years, with certain downward adjustments based on a trending analysis of recent water use. Individual fields, within a minimum field size of five irrigated acres and partial fields of at least 20 acres, are allowed to participate in IID's following programs for up to three out of every five years. Proposed fields are screened for these and other eligibility criteria, including a recent three-year water use history (excluding years participating in any IID-sponsored following program), with final field participation approval subject to administrative and environmental considerations.

IID monitors fields enrolled in the Following Program to ensure that no irrigation water is applied to the fields during the term of the contracts. Where possible, farm turnout gates are locked to prevent water delivery to fields participating in the Following Program. When a single gate supplies multiple fields and not all fields are following participants, physical obstructions such as berms or secondary gates are used to ensure no water is delivered to the participating fallowed field. Additionally, IID's water order entry and delivery tracking software is coded to identify the participating fallowed fields and lock their accounts to prevent water orders from being placed.

<sup>4</sup> At Imperial Dam

<sup>5</sup> <http://www.iid.com/Modules/ShowDocument.aspx?documentid=630>

<sup>6</sup> <http://www.iid.com/Modules/ShowDocument.aspx?documentid=611>

<sup>7</sup> <http://www.iid.com/Modules/ShowDocument.aspx?documentid=8978>

<sup>8</sup> <http://www.iid.com/waterlibrary>

This also provides a verifiable record that no irrigation water was delivered to fields in the Following Program.

Reclamation continues to perform semiannual verification inspections (see Attachments E and F) of five percent of the total acreage enrolled in the Following Program. IID provided a list of enrolled fields and acreages from which Reclamation randomly selected a sample of fields representing five percent of the Following Program’s total acreage. Datasets detailing baselines and conservation yields for selected fields were made available for Reclamation’s review during the site visits.

**On-Farm Efficiency Conservation**

In 2014 the IID Board of Directors converted the On-Farm Efficiency Conservation Program from a limited-term pilot

**Table 3. On-Farm Efficiency Conservation Program Yield in Acre-Feet.**

Program	At-Farm Conservation	Acreage	AAC Losses	Total Conservation
2014 CY On-Farm Efficiency Conservation Program	42,678	37,901	1,692	44,371

program to a standing program better suited to the complex and continuous cropping patterns of the Imperial Valley. Under this program, 44,371 ac-ft was conserved in calendar year 2014, of which 40,000 ac-ft was applied to the SDCWA Transfer pursuant to the QSA. The remaining 4,371 ac-ft was applied to IID’s 2014 IOPP payback obligations. System loss credits increased the at-field conservation volume by 1,692 ac-ft, as shown in Table 3.

The On-Farm Efficiency Conservation Program is a voluntary program initiated in pilot form in late 2012 that pays participants to reduce their seasonal delivery volumes through the use of approved conservation measures. Payments are made per unit volume of delivery reduction up to 4 ac-ft/ac. Interested customers propose a crop, conservation measure, contract term, and an anticipated delivery reduction volume. IID evaluates all proposals for certain eligibility criteria and randomly selects eligible proposals for contracting until conservation goals are met. Contracts indicate a field and crop-specific baseline delivery volume based on delivery records from the previous 10 years against which delivery reduction is evaluated, after correction for actual weather conditions and season lengths.

Conservation measures from the following categories were employed on participating fields: irrigation scheduling and event management, pressurized irrigation systems, tailwater reuse, and surface irrigation optimization. For more program details and a list of participating fields, see IID’s website at [www.iid.com/onfarmconservation](http://www.iid.com/onfarmconservation).

In addition to performing field visits to enrolled fields during construction and operation activities, IID tracks water deliveries to each enrolled field through the term of the contracts. Also, Reclamation performed semiannual verification visits to fields randomly selected within each category of conservation measure representing approximately five percent of acres enrolled at the time of each visit. Datasets detailing baselines and conservation yields for selected fields were made available for Reclamation’s review during the site visits (see Attachments E and F).

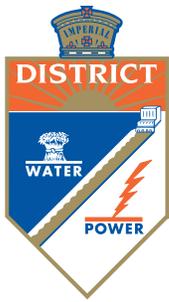
## ***Conservation/Supplementation Measure Yield Summary***

**Table 4. Summary of 2014 IID IOPP Payback Conservation & Supplemental Measure Yield (in Acre-Feet)**

Conservation/Supplementation Measure	Total	2014 QSA Obligation	2014 IOPP Payback	2014 ICS	2014 Excess Conservation
2014 Main Canal Seepage Interception	32,231	31,000	1,231		
2014 Fallowing Programs	298,692	149,199	111,789	25,000	12,704
2014 On-Farm Efficiency Program	44,371	40,000	4,371		
Total			117,391		

Attachment A

**IID 2014 Inadvertent Overrun Payback Plan**



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## **2014 Inadvertent Overrun Payback Plan**

**August 5, 2013**

### ***Purpose***

In a letter to Imperial Irrigation District (IID) dated June 7, 2013, the Bureau of Reclamation (Reclamation) formally notified IID of its calendar year 2012 overrun. The 148,375 acre-feet overrun is also documented in Reclamation's *Colorado River Accounting and Water Use Report – Arizona, California, and Nevada – Calendar Year 2012*<sup>1</sup>, which further calculates an end-of-year payback balance for 2012 of 134,076 ac-ft after the application of 14,299 ac-ft of excess 2012 conservation originally designated for Intentionally Created Surplus (ICS). This inadvertent overrun was caused by increased irrigation requirements due to intensified cropping patterns, record demand for agricultural commodities, and subnormal precipitation.

In accordance with the Inadvertent Overrun and Payback Policy (IOPP), IID is required to submit this payback plan to describe how it will meet its calendar year 2014 payback obligation of 154,738 ac-ft, which includes the 2012 overrun and the 20,662-ac-ft balance of IID's 2011 overrun. IID anticipates implementing IOPP Conservation Measures in 2013 and 2014 for early and scheduled payback, respectively. Each source of payback water and its scheduled use is described below.

### ***IOPP Conservation Measures***

IID plans to implement the following types of IOPP conservation measures:

- Delivery System Improvements
- Main Canal Seepage Interception
- Following Program
- On-Farm Conservation in the following categories:
  - Irrigation Scheduling and Event Management
  - Pressurized Irrigation
  - Tailwater Reuse
  - Surface Irrigation Optimization

IID's primary objective in implementing the measures listed above is to manage its quantified water supply and satisfy its conservation, transfer, and mitigation obligations under the 2003 Quantification Settlement Agreement and Related Agreements (QSA), although implementation schedules and conservation targets have been accelerated and increased to meet IOPP

<sup>1</sup> <http://www.usbr.gov/lc/region/q4000/4200Rpts/DecreeRpt/2012/2012.pdf>

obligations. Water conserved through these measures will first be applied to meet QSA requirements. Remaining conserved water volumes will be applied to 2014 IOPP requirements and then, in the unlikely event that excess conservation occurs, to other early payback obligations, early transfer obligations, other Colorado River conservation commitments and/or for storage as ICS as described below.

Main Canal Seepage Interception and Fallowing Programs are identified as conservation measures in IID's *2014 Plan for the Creation of Extraordinary Conservation Intentionally Created Surplus*. IID acknowledges that Extraordinary Conservation ICS cannot be created during a calendar year when IID incurs an overrun. Thus should IID incur an overrun in 2014, any volume conserved through Main Canal Seepage Interception and Fallowing Programs in excess of the volumes required for transfer, payback, or other conservation commitments would be applied to eliminate or reduce the 2014 overrun before being considered for storage as ICS.

### **Conservation Measure Descriptions, Estimated Volumes, and Proposed Verification**

Accounting for the consumptive use reduction associated with the following IOPP Conservation Measures is performed relative to IID's diversion at Imperial Dam using the loss factors previously agreed upon by IID and Reclamation. Station 60 accuracy is assumed comparable to All-American Canal accuracy at Pilot Knob. Uncertainty of annual volume conveyed by the All-American Canal at Pilot Knob has been demonstrated to have 2.0% accuracy with 95% confidence.<sup>2</sup> The volume estimates given below for the various conservation measures are estimated at-site yields and do not include conveyance loss corrections.

#### Delivery System Improvements

IID is implementing its System Conservation Program (SCP) consisting of delivery system improvements designed to conserve water through targeted spill reductions and improvements to water delivery operations. Components of the SCP include automated headings of main canals and laterals, continuous measurement and monitoring of lateral spill sites and delivery gates, and construction of inline lateral reservoirs. Water level and flow information will be provided to operations personnel in near real-time to facilitate faster responses to system fluctuations. These projects will require significant upgrades to IID's current SCADA system, development of custom decision-support software, and deployment of technological aides such as portable computers for zanjeros.

In 2013, IID funded and staffed 14 additional water patrolmen positions. These additional labor forces were employed to aggressively target and reduce operational discharge on canals and laterals most impacted by increased delivery flexibility required by IID's agricultural users and for which infrastructure improvements have been planned under the SCP, but not yet constructed. Intensified cropping patterns, coupled with adoption of sophisticated irrigation practices and on-farm conservation measures, have caused an increase in the demand for flexible delivery service. In addition to reducing operational discharge incidental to these flexible

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<sup>2</sup> Clemmens, A. and Wahlin, B. (2006). "Accuracy of Annual Volume from Current-Meter-Based Stage Discharges." *J. Hydrol. Eng.*, 11(5), 489-501.

deliveries, IID anticipates that this supplemental labor force will result in additional conservation through improved operational efficiency relative to normal water delivery practices. This effort to accelerate the SCP and increase its conservation yield is estimated to result in up to 100,000 ac-ft of extraordinary conservation in 2014. Please refer to Appendix A for a conceptual overview of the baseline against which SCP yields will be measured.

Depending on the performance of this and other planned conservation measures, some, none, or all of the conservation yield from delivery system improvements may be needed to help meet transfer requirements of the QSA. Thus, up to 100,000 ac-ft may be available for overrun payback. IID will provide updates to Reclamation as conservation measure performance projections are refined in 2014.

Conservation through delivery system improvements will be estimated relative to historical spill baselines. These baselines are modeled based on available historic spill measurement data and current operational conditions.

Reclamation is invited to perform semiannual verification visits at delivery improvement or spill monitoring sites. IID will make available site locations and specific conservation yields as they become available. Reclamation may randomly select five percent of the sites for on-site verification, whereupon IID will provide baseline data and estimated conservation volumes.

#### Main Canal Seepage Interception System

IID's Main Canal Seepage Interception System is the first efficiency conservation program to be implemented to meet IID's water transfer obligations under the QSA and other related agreements. This project consists of the installation and operation of pump stations, collection sumps, and appurtenant structures in open drains that run parallel to certain reaches of main canals located in areas of highly permeable soils. These open drains were constructed along main canals decades ago to intercept and carry seepage to the Salton Sea to relieve adjacent agricultural lands of high water tables associated with canal seepage. The Main Canal Seepage Interception System is estimated to have the capacity to collect 30,000-40,000 ac-ft of water from existing interceptor drains and pump seepage back into the main canals to supply downstream water users and reduce IID's delivery at Imperial Dam. In total, 22 pumping stations were constructed at the lower ends of interceptor drains and are operated to maintain drain water levels within six inches of historical levels to prevent interference with normal drainage and induction of additional seepage from the main canals. The locations of the 22 pump stations are shown in Figure 1.

Each pump station is equipped with an electromagnetic flow meter and a programmable logic controller with data logging and telemetry capabilities. Data is transmitted via radio to IID's servers for daily quality control, summary, and archival.

This seepage recovery project was designed primarily to provide conserved water for transfer under the QSA; however, because the construction schedule for this project outpaced the conserved water delivery schedule required by the QSA, this extraordinary conservation project may produce conserved water in excess of the transfer requirements. As such, the excess

conserved water is available for use by IID for other purposes including overrun payback and ICS until such time that the full conservation yield of this seepage recovery project is transferred under the QSA. IID estimates that the Main Canal Seepage Interception System will conserve up to 36,000 ac-ft in calendar year 2014. Some, none, or all of this volume may be applied to transfer obligations under the QSA, potentially leaving up to 36,000 ac-ft available to satisfy scheduled IOPP obligations in 2014. In the unlikely event that excess conserved water remains after 2014 payback obligations are fully met through this and other measures, IID has requested that any remaining water conserved by Main Canal Seepage Interception, up to 12,000 ac-ft, be stored as ICS.

IID will continue to cooperate with Reclamation in coordinating semiannual verification inspections of two of the Main Canal Seepage Interception sites. Flow data and volume summaries for selected sites will be made available to Reclamation. IID will also continue to provide Reclamation with quarterly summaries of volume pumped at each site.

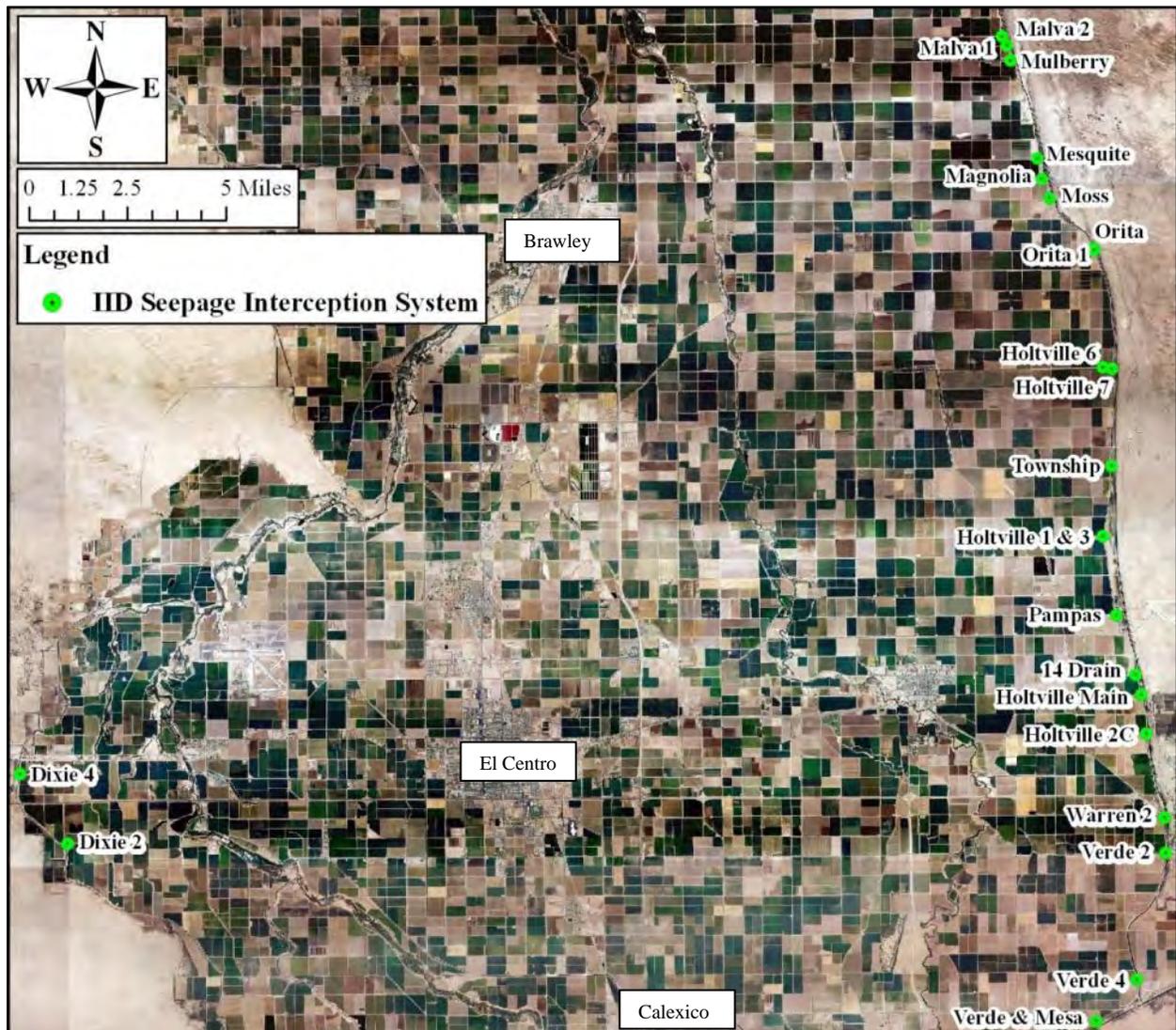


Figure 1 Map depicting locations of 22 Main Canal Seepage Interception stations

## Fallowing Program

IID's Fallowing Program is a voluntary program that allows willing landowners or lessees with landowner permission to contract with IID to receive payment for forgoing all delivery of irrigation water throughout the term of the agreement, usually one to two years. The water that otherwise would have been used for irrigation is conserved and becomes available for IID to use for other purposes such as transfer or mitigation under the QSA, overrun payback under the IOPP, other Colorado River conservation commitments, or ICS.

Initial program parameters were established in the Phase I On-Farm Fallowing Program Plan<sup>3</sup> dated March 18, 2004. This document was updated in 2006<sup>4</sup> and is anticipated to be further revised in 2013 or 2014. Additional minor program changes have been periodically incorporated into IID's template agreement with participants. Links to fallowing program summary information, which includes agreement templates, can be accessed from IID's fallowing webpage<sup>5</sup>.

Estimated conservation yields for fallowed fields are evaluated relative to field-specific baselines utilizing 10-year running average water delivery history with certain adjustments. Individual fields may participate in fallowing programs for up to three out of every five years, must comprise a minimum of ten irrigated acres, and must have been irrigated for crop production each of the previous three years, excluding years enrolled in IID fallowing programs. Proposed fields are screened for these and other eligibility criteria with consideration given to environmental impacts and administrative costs. In the event of oversubscription, eligible fields are selected utilizing a random selection process.

Since 2003, IID has conducted over a dozen separate fallowing programs yielding over 950,000 acre-feet of conserved water by paying participants over \$73 million to fallow approximately 170,000 acres of agricultural lands. IID is currently administering its 2013-14 fallowing program, which offers 12 to 18-month terms with start dates ranging from January 1, 2013 to July 1, 2013 and an end date of June 30, 2014. Additionally, IID anticipates administering calendar year and midyear fallowing programs in 2014 with start dates of January 1 and July 1

Depending on final contract volumes, the total projected fallowing program yields for calendar year 2014 are 200,000 to 330,000 ac-ft, of which 150,000 ac-ft is required to meet QSA obligations for transfer and environmental mitigation. Depending on the yield of other conservation measures implemented in 2014, 50,000 to 154,738 ac-ft of the 2014 fallowing yield may be applied to 2014 IOPP payback obligations, with any excess fallowing conservation being credited to meet early QSA transfer or mitigation obligations, other Colorado River conservation commitments, or ICS purposes. IID will provide Reclamation with provisional and final contracted volumes as they become available. IID will also post lists of participating fields designated by canal and gate identifiers and acreage along with provisional fallowing program

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<sup>3</sup> [www.iid.com/fallowingprograms2004plan](http://www.iid.com/fallowingprograms2004plan)

<sup>4</sup> [www.iid.com/fallowingprograms2006plan](http://www.iid.com/fallowingprograms2006plan)

<sup>5</sup> [www.iid.com/fallowingprograms](http://www.iid.com/fallowingprograms)

conservation yield data and contract start and end dates on its website once the program enrollment is complete.

IID monitors fields enrolled in the Fallowing Program to ensure that no irrigation water is delivered during the term of the contracts. For most participants, delivery gates are locked to prevent water delivery to fields participating in the Fallowing Program. Instances where the same gate supplies a participating field and other water uses, physical obstructions such as berms or secondary gates/locks are employed. Additionally, IID's water order entry and delivery tracking software locks the accounts of fallowed fields and does not allow the placement of water orders on participating fields. This provides a verifiable record that irrigation water was not delivered to these fields.

IID will continue to cooperate with Reclamation in coordinating semiannual verification inspections of five percent of the total acreage enrolled in the Fallowing Program. When Reclamation schedules the visit, IID will provide a list of enrolled fields and acreages from which Reclamation may randomly select a sample of fields representing five percent of total enrolled acreage. Data sets detailing baselines and conservation volumes for selected fields will be provided to Reclamation during the semiannual inspection visits.

#### On-Farm Efficiency Conservation Program

IID initiated its On-Farm Efficiency Conservation Program in November 2012, soliciting proposals for a 2013 calendar year pilot program<sup>6</sup>. The pilot program is anticipated to be extended through 2014 with additional proposal solicitation beginning in July 2013. The program's 2014 conservation goal of 40,000 ac-ft will be achieved by contracting with agricultural water users to implement on-farm water use efficiency improvement measures. IID will pay participants to reduce their seasonal delivery volumes through the use of approved conservation measures. Payments will be made per unit volume of delivery reduction. Interested customers are required to propose a crop, conservation measure, contract term, and an anticipated delivery reduction volume. IID will then evaluate all proposals for certain eligibility criteria and randomly select for contracting those proposals needed to meet conservation goals. Contracts will specify a field- and crop-specific baseline delivery volume based on delivery records from the previous 10 years against which delivery reduction will be evaluated, after correction for actual weather conditions and season lengths. Please refer to Appendix B for a detailed description of baseline estimation methods. Participants will agree to accept a firm delivery limit equal to the baseline delivery volume less the contracted delivery reduction. It is anticipated that many of the conservation measures implemented will fall into the following categories: irrigation scheduling and event management, pressurized irrigation systems, tailwater reuse, and surface irrigation optimization. A brief description of each category follows.

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<sup>6</sup> [www.iid.com/onfarmconservation](http://www.iid.com/onfarmconservation)

### *Irrigation Scheduling and Event Management*

Irrigation scheduling uses weather models and soil moisture measurements to estimate crop water requirements and optimize the timing and amounts of irrigation applications, considering such cultural constraints as harvest schedules and water and labor availability. Irrigation event management 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. These two management-based measures are often combined with other hardware-based measures, but have also been proven to reduce irrigation delivery requirements as stand-alone measures. IID staff, customers, and irrigation consultants implemented a successful demonstration Irrigation Scheduling and Event Management Program in 2008-2009, conserving over 700 ac-ft.

### *Pressurized Irrigation*

Pressurized irrigation systems distribute water through fields through pipes, tubes, or hoses. Pressurized irrigation systems can be designed, maintained, and operated to apply water with good uniformity and to avoid runoff while minimizing deep percolation and evaporation losses, all of which serve to reduce the amount of irrigation delivery required. This category includes many variations of sprinkle irrigation, such as center pivots, wheel lines, solid sets, and micro sprinklers; and drip/trickle irrigation methods, including surface and subsurface drip systems.

### *Tailwater Reuse*

Tailwater reuse systems capture tailwater (runoff) from surface-irrigated fields and convey it to a point where it can be reused for irrigation either on the same field or nearby fields. Examples include tailwater return systems, whereby tailwater is collected at the lower end of a field or group of fields and pumped back to the head ditch of one or more originating fields, and tailwater cascading structures, which collect tailwater and direct it to the head ditch of a nearby lower-lying field. Both systems have been shown to supplement and reduce the volume of fresh water delivered to participating fields.

### *Surface Irrigation Optimization*

This category includes many innovative measures to improve existing gravity-flow, surface irrigation systems, reducing inefficiencies and irrigation delivery requirements. Examples include precision land leveling to optimize field slope or construct level basins and terraces, multiple head ditches to shorten run length, impermeable head ditch liners, gated pipe, surge flow, limited tillage programs to improve infiltration, optimized border width, and the use of surface irrigation modeling software.

Some or all of the water anticipated to be conserved through the 2014 On-Farm Efficiency Conservation Program, up to 40,000 ac-ft, will be used to satisfy QSA requirements and any remaining volume will be applied to overrun payback. Total contracted delivery reduction volumes will be made available after contracting is complete. Actual delivery reductions will be computed for each participating field after each crop season and/or following each calendar

year. The volume projected to be applied to 2014 payback obligations may range from 0 to 40,000 ac-ft, however the final verified volume will not be known until early 2015. IID will provide updates to Reclamation to narrow these estimated ranges as contracts are executed in 2013 and 2014.

In addition to performing field visits to enrolled fields during construction and operation activities, IID will track water deliveries to each enrolled field through the term of the contracts, limiting seasonal delivered water to the delivery baseline less the agreed upon delivery reduction. Reclamation is invited to make semiannual verification visits to randomly selected fields representing five percent of enrolled acreage. During field visits, IID and participating customers may demonstrate the effectiveness of implemented efficiency conservation measures. IID will also make available blind datasets detailing computed baselines, contracted delivery reductions, and year-to-date delivery volumes for the randomly selected fields. IID will also review with Reclamation inspectors the baseline calculation procedures for a subset of selected fields.

### ***Conservation Measure Yield Summary***

**Table 1. Summary of estimated yield ranges for IOPP Conservation Measures**

Conservation Measure	Estimated 2014 Conservation Volume in ac-ft			
	Total Potential	QSA Obligations	Overrun Payback	Intentionally Created Surplus
Delivery System Improvements	0-100,000	0-71,000	0-100,000	0
Main Canal Seepage Interception	0-36,000	0-36,000	0-36,000	0-12,000
On-Farm Improvements	0-40,000	0-40,000	0-40,000	0
Land Fallowing Program	200,000-330,000	150,000	50,000-154,738	0-25,000
Total	376,000-400,000	221,000	154,738	0-25,000

### **Additional Information**

For more information please visit:

[www.iid.com/waterconservation](http://www.iid.com/waterconservation)

[www.iid.com/fallowingprograms](http://www.iid.com/fallowingprograms)

[www.iid.com/onfarmconservation](http://www.iid.com/onfarmconservation)

# Appendix A

## IID System Conservation Program Summary of Conservation Baseline Concepts

### Overview<sup>1</sup>

Verification of conservation by the System Conservation Program (SCP) involves a comparison between with- and without-project scenarios in which all non-project conditions are constant so that the differences between the two depictions represent the effects of the project. This is different than a comparison of pre- and post-project conditions, which may include differences caused by changes in various factors unrelated to the project that can vary with time. Examples of such factors include changes in cropping patterns, weather conditions and water management practices.

For each flow path affected by a conservation project, verification requires subtracting the with-project volume from the without-project volume, such that:

$$VC = V_{\text{without}} - V_{\text{with}} \quad (\text{Equation 1})$$

in which,

- VC is the Verified Conserved volume, acre-feet;
- $V_{\text{without}}$  is an estimate of the flow path's volume of water without the project, acre-feet; and
- $V_{\text{with}}$  is an estimate of the flow path's volume of water with the project, acre-feet.

Obviously, either the  $V_{\text{without}}$  or  $V_{\text{with}}$  data set must be synthesized because it is not possible to measure both the with- and without-project conditions at the same point in time. During feasibility studies and planning activities, the verified conserved water was estimated using equation 1 based on measured without-project volumes and the with-project volumes were synthesized.

The remainder of this appendix describes the procedures that have been designed to verify SCP yields during and after implementation. Once implemented, the  $V_{\text{with}}$  data set for each project can be measured, and the  $V_{\text{without}}$  data set must be synthesized.

### *Lateral Spill Reduction*

Two models of annual without-project lateral spill as a function of annual lateral farm deliveries were developed based on historical lateral spill records from 1999 through 2008. One model was developed for laterals originating from the East Highline Canal, which generally have steeper slopes and fewer branches compared to laterals originating from other main canals. It

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<sup>1</sup> A more complete discussion can be found in the source of many of the concepts in this overview: Burns, J.I., G.G. Davids, A.K. Dimmitt and J Keller. 2000. Verification-based planning for modernizing irrigation systems in Irrigation and Drainage in the New Millennium. USCID. Denver. pp. 51-63.

was based on records from 13 East Highline Canal laterals. Another model was developed for all other laterals in IID, based on records from 17 laterals. The models were applied to estimate annual without-project spill from laterals that did not have historical records. Thus, average annual without-project spill was established for all IID laterals based on either the actual historical records where they exist, or based on models developed from the historical records for laterals without records.

The models will be used each year to estimate the volume of spill that would have occurred without the project under the actual conditions observed. However, to compensate for the effects of the On-Farm Efficiency Conservation and Fallowing Programs estimated spill, the without-project farm delivery volume will be estimated as the measured with-project farm delivery volume plus the verified on-farm water savings on each lateral. Measured with-project spill volumes will be subtracted from the without-project spill volumes calculated as described above to determine the volume conserved.

Applied in this manner, the without-project spill models will be sensitive to variability in farm deliveries from year to year; however, the models will inevitably remain based on quantities of spill that were observed between 1999 and 2008. This is because once the SCP is implemented, there will be no laterals in the system where without-project conditions exist.

# Appendix B

## IID On-Farm Efficiency Conservation Program *Summary of Conservation Baseline Computation Procedures*

### **Solicitation, Contracting, and Verification Overview**

The On-farm Efficiency Conservation Program solicits proposals from IID's agricultural water users who wish to implement efficiency improvement measures on their fields. Proposals indicate the desired term of agreement, describe the proposed conservation measure, and list the field location and cropping plan. The cropping plan contains the crops that may be grown during the term and their anticipated plant and harvest dates.

IID uses the proposal information along with historical water delivery, weather, and cropping records to project a water delivery baseline for the proposed crops. Applicants are notified of the projected baselines and asked whether they wish to enter agreements to implement conservation measures based on the projections, consult with IID regarding baseline determination, or abandon their proposals.

Throughout the term of each agreement, IID representatives inspect and track deliveries to enrolled fields to ensure conservation goals are met. Upon completion of each crop season, IID computes a verification baseline using actual season lengths and weather conditions and pays participants for verified conserved water according to the agreements.

### **Baseline Estimation**

#### Crop Seasons Database

IID maintains a database of historical water deliveries to each of its delivery gates. The crop and acres irrigated are recorded as attributes to each delivery record. This allows total water deliveries,  $DW$ , for individual crop seasons to be summed and analyzed as the foundation for crop- and field-specific, historical water use baselines. A crop season is defined here to begin immediately following the harvest of one crop and end with the harvest of the next. Thus all water delivered to a gate in preparation for and during the production of a given crop on a given acreage is summed as the historical crop season delivery. In the case of perennial crops, intermediate crop seasons end with each calendar year prior to final harvest.

Actual crop evapotranspiration,  $ET_a$ , is also calculated for each historical crop season using estimates of reference evapotranspiration reported for CIMIS<sup>1</sup> weather stations located throughout the Imperial Valley combined with crop coefficient estimates derived for the area. Effective precipitation,  $P_e$ , for each crop season is estimated using data from the same weather station network and the NRCS TR-21 method<sup>2</sup>.

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<sup>1</sup> California Irrigation Management Information Systems; [www.cimis.water.ca.gov](http://www.cimis.water.ca.gov)

<sup>2</sup> NRCS National Engineering Handbook, part 623, chapter 2

An important metric computed for each crop season is the consumptive use fraction, CUF, defined as the fraction of delivered water needed to satisfy crop consumptive use, as given below:

**Equation 1.** 
$$CUF = \frac{CU}{DW}$$

**Equation 2.** 
$$CU = ET_a - P_e$$

where *CU* is crop consumptive use of delivered water or net evapotranspiration as defined by Equation 2 and *DW* is Delivered Water as recorded by IID.

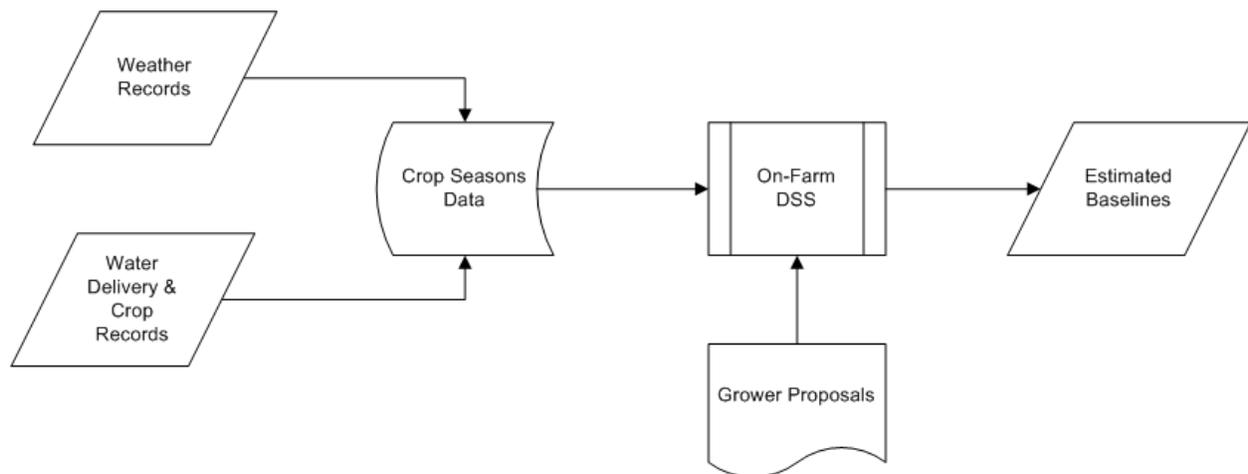
Although the IID’s delivery records are suitable for their intended purpose of volumetric billing, in some cases the accuracy of secondary attributes such as crops and irrigated acreage is not sufficient for detailed analysis. Computed crop seasons are checked for accuracy using quality control procedures developed to identify crop seasons where computed values fall outside expected ranges. These ranges are defined for individual crops, grouped by soil type in certain cases, utilizing acceptance parameters related to evapotranspiration, delivered water, and season timing. Figure 1 illustrates the data sources used in estimating baselines.

Baseline Estimation Methods

Depending on the availability and reliability of crop season records for a proposed crop and field, one of three baseline estimation procedures is used to compute projected and verification baselines.

*Delivered Water History Method*

In cases where the proposed crop has been grown on the field during the baseline period (the 10 years prior to the year of enrollment) and the resulting crop seasons pass quality control checks, baselines are estimated directly using historical crop season data. Estimated baselines for pre-season projection and post-season verification are calculated according to Equations 3 and 4.



**Figure 1. Basic data requirements for baseline calculation**

**Equation 3.** 
$$BL_{prj} = DW_{hst} \left( \frac{CU_{prj}}{CU_{hst}} \right) = \frac{CU_{prj}}{CUF_{hst}}$$

**Equation 4.** 
$$BL_{vrf} = DW_{hst} \left( \frac{CU_{act}}{CU_{hst}} \right) = \frac{CU_{act}}{CUF_{hst}}$$

where  $BL_{prj}$  and  $BL_{vrf}$  are projected and verification baselines, respectively,  $DW_{hst}$  is average DW recorded for historical seasons at the proposed field matching the proposed crop,  $CU_{prj}$  is  $CU$  of delivered water projected for the proposed crop season based on  $CU$  computed for similar historical seasons district-wide,  $CU_{hst}$  is average  $CU$  computed for those historical crop seasons used to compute  $DW_{hst}$ , and  $CU_{act}$  is actual  $CU$  for the enrolled crop computed after season completion.

#### *Performance Rank Method*

In cases where quality-controlled records are not available for the proposed crop and field, but qualifying records are available for other crops grown on the field during the baseline period, estimates are based on the rank of qualifying historical seasons relative to other historical seasons district-wide. This method uses  $CUF$  as a performance index to rank crop seasons on a given field against other seasons district-wide with the same crop and soil type. It assumes that a field's average  $CUF$  rank is similar for any crop season and can be used to estimate a  $CUF$  for a proposed crop. The estimated  $CUF$  is then used to compute  $BL_{prj}$  and  $BL_{vrf}$  after Equations 3 and 4.

Representative district-wide  $CUF$  distributions are developed based on historical crop seasons passing the quality control checks described previously. Sample distributions for alfalfa and carrots grown on three soil types are shown in Figures 2 and 3.

#### *District-Wide Average Method*

In cases where no reliable data is available for any crop on the field, district-wide averages of  $CUF$  by crop and soil type are used to estimate baselines for proposed crops after Equations 3 and 4.

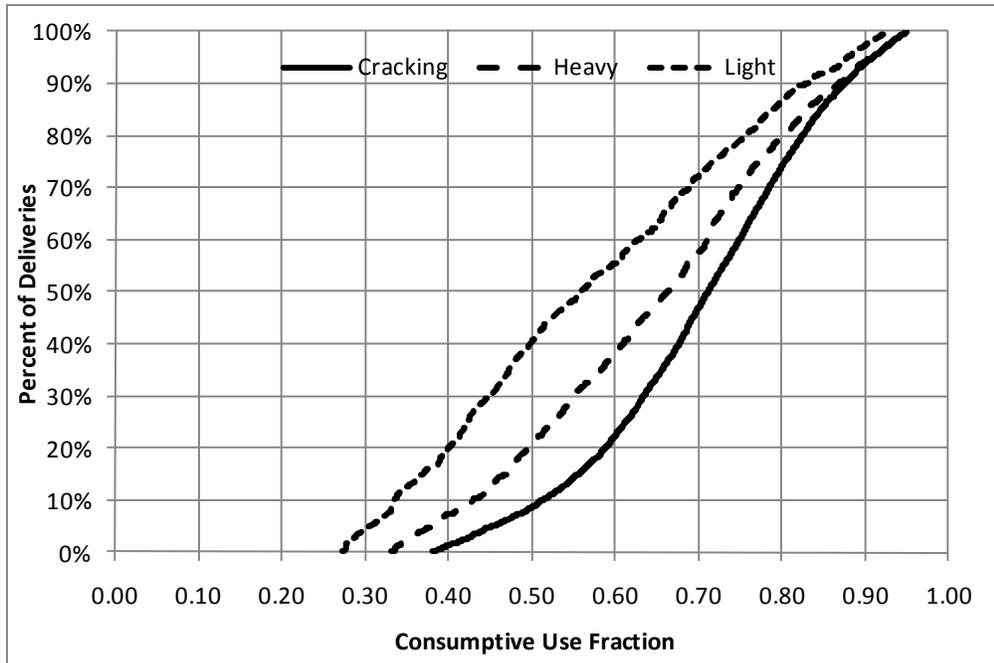


Figure 2. Sample CUF distributions for alfalfa grown on different soil types

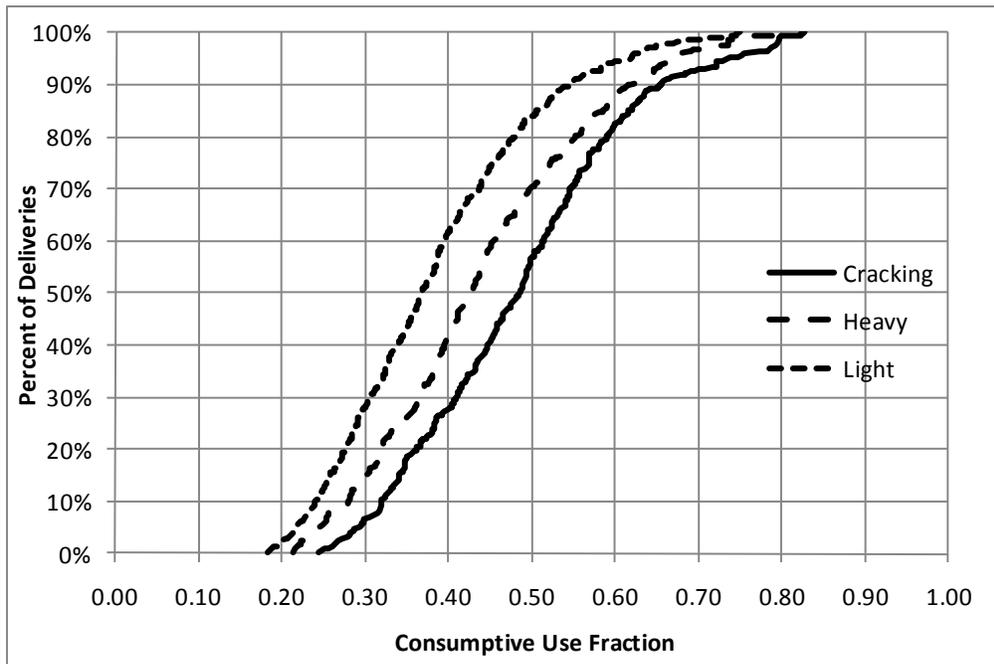


Figure 3. Sample CUF distributions for carrots grown on different soil types

**Additional Information**

Further details regarding baseline estimation and program management are available at:

[www.iid.com/onfarmconservation](http://www.iid.com/onfarmconservation)

Attachment B

**September 21, 2013 USBR Letter Approving IID's 2014 Inadvertent Overrun Payback Plan**



# United States Department of the Interior

BUREAU OF RECLAMATION  
Lower Colorado Regional Office  
P.O. Box 61470  
Boulder City, NV 89006-1470

IN REPLY REFER TO:

LC-4220  
WTR-4.03

SEP 21 2013

CERTIFIED – RETURN RECEIPT REQUESTED

Mr. Kevin E. Kelley  
General Manager  
Imperial Irrigation District  
P.O. Box 937  
Imperial, CA 92251-0937

Subject: Approval of Inadvertent Overrun and Payback Policy (IOPP) Payback Plan for  
Calendar Year 2014 – Imperial Irrigation District (IID)

Dear Mr. Kelley:

Effective January 1, 2004, the IOPP established requirements for payback of inadvertent overuse of Colorado River water by users in the Lower Division States. By letter dated June 7, 2013, the Bureau of Reclamation notified IID that based on Reclamation's final water accounting records for calendar year 2012, IID incurred an overrun of 134,076 acre-feet in 2012. In accordance with the IOPP, IID is required to pay back the full amount of its 2012 overrun in calendar year 2014.

In response to Reclamation's June 7 letter, and in accordance with the IOPP, IID submitted its 2014 Inadvertent Overrun Payback Plan (Plan) dated August 5, 2013. As outlined in IID's Plan, IID proposed to implement four extraordinary conservation measures to meet its calendar year 2014 payback obligation of 154,738 acre-feet, which includes the 2012 overrun and the 20,662 acre-foot balance of IID's 2011 overrun. These measures include: delivery system improvements; seepage interception and recovery; fallowing; and on-farm efficiency conservation.

On August 21, 2013, IID staff presented IID's Plan to the Inadvertent Overrun and Payback Technical Committee (IOPTC). The IOPTC reviewed the Plan for technical adequacy and unanimously recommended approval of three of the four proposed payback measures: fallowing, seepage interception and recovery, and on-farm efficiency conservation. With respect to delivery system improvements, the IOPTC recommended that IID provide additional information demonstrating how the estimate of conservation yields from this measure will be derived, as well as information describing how Reclamation will be able to monitor implementation and perform verification of this measure.

RECEIVED  
SEP 30 2013

IMPERIAL IRRIGATION DISTRICT  
GENERAL MANAGER'S OFFICE

Taking into consideration the recommendation of the IOPTC, I approve IID to implement three of the four proposed payback measures to meet IID's calendar year 2014 payback obligation: fallowing, seepage interception and recovery, and on-farm efficiency conservation.

With respect to the delivery system improvements, at this time I am withholding approval on use of this measure for implementation to meet IID's calendar year 2014 payback obligation pending additional consultation with IID. Reclamation recognizes that IID is actively developing this program and appreciates the significant effort being undertaken to ensure its success. Reclamation will continue to consult with IID as IID develops additional information demonstrating how the estimate of conservation yields from the projects implemented under this measure will be derived, as well as information describing how Reclamation will be able to monitor implementation and perform verification of this measure. After further review of such supplemental information, Reclamation will further consider the approval of this proposed extraordinary conservation measure for implementation to meet IID's 2014 payback obligation. Unless and until Reclamation approves the use of delivery system improvements to meet IID's payback obligation, IID is approved to repay its 2014 payback obligation only through fallowing, seepage interception and recovery, and/or on-farm efficiency conservation measures.

The IOPP requires that Reclamation monitor implementation of the extraordinary conservation measures outlined in approved payback plans. Reclamation will work closely with IID staff to arrange and conduct semi-annual field verification inspections in 2014 on 5 percent of the acreage enrolled in IID's fallowing program, on 5 percent of the seepage interception and recovery systems, and on a representative sample of the fields enrolled in the on-farm efficiency conservation program to ensure IID is on target to meet its 2014 payback obligation. Reclamation requests that IID provide quarterly updates regarding IID's progress in implementing the approved extraordinary conservation measures. Should Reclamation approve the IID's delivery system improvements program, Reclamation will work with IID staff to identify and conduct the appropriate verification inspections of this measure as well.

Reclamation's administration of the IOPP requires that IID submit a report certifying the amount of Colorado River water conserved by implementation of the extraordinary conservation measures in the previous calendar year as defined in the approved Plan. This report must contain appropriate data that demonstrates the conservation yields achieved by each approved measure. Please submit this report, certifying the amount of conservation achieved in calendar year 2014, to Reclamation no later than February 28, 2015.

Reclamation notes that, in addition to IID's 2014 payback obligation, IID is required to conserve 221,000 acre-feet in 2014 to meet its transfer obligations set forth in Columns 5, 7, and 8 of Exhibit B to the Colorado River Water Delivery Agreement (CRWDA). Reclamation further notes that, in accordance with Section 2.4 of the IOPP, conservation measures implemented to meet an IOPP payback obligation must be in addition to those being implemented to meet any existing transfer or conservation agreement. Reclamation understands that IID has accelerated its implementation schedules and conservation targets to meet its IOPP obligations, and

appreciates IID's efforts to ensure it successfully meets both its CRWDA transfers and its 2014 IOPP payback obligation.

If you have questions, please contact Mr. Paul Matuska, Water Accounting and Verification Group Manager, at 702-293-8164.

Sincerely,



Terrance J. Fulp, Ph.D.  
Regional Director

cc: Ms. Tanya M. Trujillo  
Executive Director  
Colorado River Board of  
California  
770 Fairmont Avenue, Suite 100  
Glendale, CA 91203-1035

Ms. Sandra Fabritz-Whitney  
Director  
Arizona Department of Water Resources  
3550 North Central Avenue  
Phoenix, AZ 85012-2105

Jayne Harkins, P.E.  
Executive Director  
Colorado River Commission of  
Nevada  
555 East Washington Avenue, Suite 3100  
Las Vegas, NV 89101-1065

Attachment C

**December 3, 2007 USBR Letter re Transportation Loss Accounting for IID Following Programs**



IN REPLY REFER TO:  
BCOO-4230  
WTR 4.03

## United States Department of the Interior

### BUREAU OF RECLAMATION

Lower Colorado Regional Office

P.O. Box 61470

Boulder City, NV 89006-1470

DEC 03 2007



**CERTIFIED – RETURN RECEIPT REQUESTED**

Mr. Mike Campbell  
Acting General Manager  
Imperial Irrigation District  
P.O. Box 937  
Imperial, CA 92251-0937

Subject: Transportation Loss Accounting for Imperial Irrigation District (IID) Following Programs

Dear Mr. Campbell:

The Colorado River Water Delivery Agreement (CRWDA), dated October 10, 2003, commits IID to a program of conservation designed to reduce IID's consumptive use of Colorado River water to allow for certain water transfers identified in Exhibit B to the CRWDA and to allow for payback of overruns occurring in 2001 and 2002 identified in Exhibit C to the CRWDA. IID implemented following programs that began in 2003 to conserve water to satisfy IID's obligations under Exhibits B and C to the CRWDA.

Implementation of the IID fallowing programs has given rise to the question of an appropriate accounting methodology to determine the amount of Colorado River water conserved by these programs. Water not applied to the development of crops on fallowed lands is clearly water that is conserved and is therefore available to satisfy an Exhibit B transfer or to reduce an Exhibit C payback obligation. The method used to quantify the amount of water conserved at the field by the land fallowing programs has not been in dispute.

Because IID's fallowing programs result in reduced diversions at Imperial Dam, there are also reductions in transportation losses relating to the fallowed lands. Water not lost in transport from Imperial Dam to the farmers' headgates due to the fallowing programs is clearly water that is also conserved. Developing an appropriate methodology to account for the amount of water conserved by a reduction in transportation losses has been the subject of considerable study.

Since the fall of 2004, the Bureau of Reclamation and IID have engaged in a series of technical discussions related to the development of an accounting methodology to quantify the percentage

of reduction in transportation loss due to IID's following programs. The accounting methodology Reclamation is adopting may be stated as follows:

Total Diversion to Field Loss Percentage ( $TDFLP^t$ ) = Total loss from Field to River [Sta. 60 ( $STA60^t$ ) minus Delivered to Users ( $DTU^t$ )] minus 137,120 acre-feet divided by Sta. 60 ( $STA60^t$ )

$$TDFLP^t = (STA60^t - DTU^t - 137,120) / STA60^t$$

Where:  $STA60^t$  is Sta. 60 (Column 4 on All American Canal (AAC) Accounting Sheet)

$DTU^t$  is Delivered To Users (Column 18 on AAC Accounting Sheet)

137,120 = Constant

t is the current Year

Conservation Amount at Colorado River ( $CA^t_{river}$ ) = Sum of Conserved amount at Fields ( $\sum CA^t_{field}$ ) divided by 1 minus last year's Total Diversion to Field Loss Percentage ( $TDFLP^{t-1}$ )

$$CA^t_{river} = \sum CA^t_{field} / (1 - TDFLP^{t-1})$$

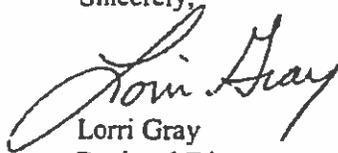
The use of this methodology and these parameters to calculate the reductions in transportation losses will be reviewed by Reclamation and IID when significant new information arises that might affect transportation losses. For example, such new information might include physical changes to the canals, changes in operations, or changes in water flow measurement. Revisions to the methodology or parameters may be necessary to ensure a reliable scientific basis for computation of IID's transportation losses. Reclamation anticipates such revisions will occur infrequently and will be accomplished in consultation with IID.

The methodology Reclamation is now adopting to determine the quantity of water conserved as a result of reduced transportation losses will be used to determine the quantity of conserved water available for delivery to other users in accordance with CRWDA's Exhibit B or for payback to the Colorado River system in accordance with CRWDA's Exhibit C. This methodology will also increase the accuracy of the data compiled in the annual Colorado River Accounting and Water Use Reports (Accounting Reports) filed in *Arizona v. California*.

Reclamation will apply this methodology and these parameters to determine and report the quantity of water conserved by the use of land following to meet the requirements of Exhibit B and Exhibit C to the CRWDA beginning in 2007. It is not Reclamation's usual practice to apply a change in accounting methodology retroactively. In this circumstance, however, Reclamation has indicated in recent Accounting Reports that the methodology was under review and that the values reported for Exhibit C might be changed accordingly. Reclamation will therefore also apply the revised accounting methodology to Exhibit C paybacks for the years 2004 through 2006.

Questions concerning Reclamation's transportation loss methodology for IID's following programs should be addressed to Ms. Ruth Thayer at 702-293-8426.

Sincerely,



Lorri Gray  
Regional Director

cc: Mr. Gerald Zimmerman  
Executive Director  
Colorado River Board of California  
770 Fairmont Avenue, Suite 100  
Glendale, CA 91203-1035

Mr. Herb R. Guenther  
Director  
Arizona Department of Water Resources  
3550 North Central Avenue  
Phoenix, AZ 85012

Mr. George M. Caan  
Director  
Colorado River Commission of  
Nevada  
555 E. Washington Avenue, Suite 3100  
Las Vegas, NV 89101

Attachment D

**Reclamation's 2013 IOPP Payback Verification letter dated May 5, 2014**



# United States Department of the Interior

BUREAU OF RECLAMATION  
Lower Colorado Regional Office  
P.O. Box 61470  
Boulder City, NV 89006-1470

IN REPLY REFER TO:

LC-4220  
WTR-4.03

MAY 05 2014

CERTIFIED – RETURN RECEIPT REQUESTED

Mr. Kevin E. Kelley  
General Manager  
Imperial Irrigation District  
P.O. Box 937  
Imperial, CA 92251-0937

Subject: Verification of 2013 Inadvertent Overrun Payback by the Imperial Irrigation District (IID)

Dear Mr. Kelley:

Effective January 1, 2004, the Inadvertent Overrun and Payback Policy (IOPP) established requirements for payback of inadvertent overuse of Colorado River water by users in the Lower Division States. In calendar year 2011, IID incurred an overrun in the amount of 82,662 acre-feet (af) for which payback in the amount of 55,710 af was required in 2013<sup>1</sup>. In accordance with the IOPP, IID submitted a Revised Inadvertent Overrun Payback Plan for 2013 (Payback Plan) in which IID described the extraordinary conservation measures IID proposed to implement in 2013 to meet its payback obligation. By letter dated September 21, 2013, the Bureau of Reclamation approved IID's Payback Plan.

By email dated April 2, 2014, IID submitted a report (IOPP certification report) certifying the extraordinary conservation measures implemented by IID in 2013 and the amount of Colorado River water conserved for purposes of meeting IID's 2013 payback obligation. As outlined in IID's IOPP certification report, IID implemented two approved conservation measures to meet its IOPP payback obligation: its Main Canal Seepage Interception System (MCSIS), from which 30,776 af of Colorado River water was conserved in 2013; and its Fallowing Program, from which 242,403 af of Colorado River water was conserved in 2013. As noted in IID's IOPP certification report, the primary objective in implementing these conservation measures was the satisfaction of IID's conservation, transfer, and mitigation obligations under the 2003 Quantification Settlement Agreement and Related Agreements (QSA), although implementation schedules and conservation targets were accelerated and increased to meet IOPP obligations. Colorado River water conserved from these measures was first applied to meet IID's 2013 QSA obligations, then to meet IID's 2013 IOPP payback obligation. For the purpose of meeting its 55,710 af payback obligation, IID utilized conservation from its Fallowing Program.

After meeting its 2013 QSA and IOPP obligations, IID had 35,295 af of additional conservation from its Fallowing Program and 2,052 af of additional conservation from its MCSIS, for a combined total of 37,347 af of additional conservation. IID requested that this additional conservation be applied as early payback towards its 2014 payback obligation.

The IOPP requires that Reclamation monitor implementation of the extraordinary conservation measures outlined in approved payback plans. Reclamation conducted semi-annual independent field verification

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<sup>1</sup>In accordance with the IOPP, IID was required to pay back a minimum of 62,000 af of its 2011 overrun in 2013. In 2012, IID applied 6,290 af of early payback, which reduced IID's 2013 payback obligation to 55,710 af.

inspections in 2013 on randomly selected fields accounting for five percent of the total acreage enrolled in the Fallowing Program, and on five percent of the project pumps that were operated as part of the MCSIS. The findings of Reclamation's verification inspections are included in the enclosed reports, *Imperial Irrigation District On-Farm Fallowing Program/Main Canal Seepage Interception System Spring 2013 Verification Report* (Enclosure 1) and *Imperial Irrigation District Extraordinary Conservation Verification Report Fall 2013* (Enclosure 2).

The Inadvertent Overrun and Payback Technical Committee (IOPTC) met on April 10, 2014, to review IID's 2013 IOPP certification report and to make a recommendation regarding the adequacy of the report in demonstrating the achieved payback amount. The IOPTC unanimously recommended IID be credited with a total 93,057 af of payback for 2013, (2,052 af from its MCSIS, and 91,005 af from its Fallowing Program). In its recommendation, the IOPTC acknowledged that, of the total payback, 55,710 af be credited towards IID's 2013 payback obligation, and 37,347 af be credited as early payback towards IID's 2014 payback obligation.

Taking into consideration the recommendations provided by the IOPTC members, Reclamation's field verification, and other information, I verify and make the final determination that, for the purpose of meetings its payback obligations under the IOPP, IID conserved 93,057 af of Colorado River water during 2013 as documented in IID's 2013 IOPP certification report, and therefore credit IID with this amount of payback for 2013. Additionally, I approve IID's request that, of this amount, Reclamation apply 55,710 af to IID's 2013 payback obligation and 37,347 af as early payback toward IID's 2014 payback obligation. Applying the 37,347 af of early payback reduces IID's 2014 payback obligation to 117,391 af. Reclamation appreciates IID's effort to provide payback in advance of its established payback schedule.

If you have questions, please contact Mr. Paul Matuska, Water Accounting and Verification Group Manager, at 702-293-8164 or [pmataska@usbr.gov](mailto:pmataska@usbr.gov).

Sincerely,



Terrance J. Fulp, Ph.D.  
Regional Director

Enclosures - 2

cc: Ms. Tanya M. Trujillo  
Executive Director  
Colorado River Board of California  
770 Fairmont Avenue, Suite 100  
Glendale, CA 91203-1035

Mr. Michael J. Lacey  
Director  
Arizona Department of Water Resources  
3550 North Central Avenue  
Phoenix, AZ 85012-2105

Jayne Harkins, P.E.  
Executive Director  
Colorado River Commission of Nevada  
555 East Washington Avenue, Suite 3100  
Las Vegas, NV 89101-1065  
(w/o encl to each)

Attachment E

**IID 2014 Spring Verification Report**

# Imperial Irrigation District

## Extraordinary Conservation Verification Report

### March 2014

In accordance with its approved plan for the creation of Extraordinary Conservation Intentionally Created Surplus (ICS), and its approved Revised Inadvertent Overrun and Payback Policy (IOPP) payback plan, the Imperial Irrigation District (IID) is implementing extraordinary conservation measures during calendar year 2014 to create Extraordinary Conservation ICS and to conserve water to meet its 2014 IOPP payback obligation. To create Extraordinary Conservation ICS, IID is implementing an On-Farm Fallowing Program (Fallowing Program) and a Main Canal Seepage Interception System (MCSIS). To meet its 2014 IOPP payback obligation, IID is implementing its Fallowing Program, MCSIS and On-Farm Efficiency Conservation Program (OFECP).

The Bureau of Reclamation approved IID's 2014 ICS Plan of Creation and IID's 2014 IOPP Payback Plan by letter dated September 21, 2013. As noted in each of these plans, verification that the conservation measures were implemented is accomplished in part through the Bureau of Reclamation conducting semi-annual verification inspections on randomly selected fields accounting for five percent of the total acreage enrolled in the Fallowing Program, and on five percent of the project pumps that were operated as part of the MCSIS. The first of these inspections for calendar year 2014 was conducted on March 26<sup>th</sup> and 27<sup>th</sup>, 2014; observations and findings from those inspections are documented in this verification report.

### **A: On-Farm Fallowing Program Verification**

At the time of Reclamation's inspection, IID was implementing two different Fallowing Programs:

- 1) Calendar Year 2014 Fallowing Program, running from January 1, 2014 through December 31, 2014 with 12,970.8 acres enrolled.
- 2) 2013-2014 Fallowing Program, running from July 1, 2013 through June 30, 2014 with 34,432.6 acres enrolled.

Five percent of the total 47,403.4 acres participating in IID's Fallowing Programs were checked during the site verification inspection. Thirty fields totaling approximately 2,410.2 acres were inspected (see Attachment #1).

Observation: Green growth was observed on some fields, which was attributed to localized rainfall. The further South we travelled in IID the more pronounced the effect of December 2013 and January and February 2014 rains in providing sufficient water supply to keep volunteer plants and/or prior crops in fields enrolled in the fallowing programs somewhat green.

IID staff indicated that Fallowing Program participants, in accordance with environmental mitigation requirements for potential air quality impacts, were required to implement dust control Best Management Practices (BMPs) when necessary. These BMPs include (but are not

limited to) leaving vegetation residue on the field or seeding a cover crop prior to the fallowing start date.

Attachment 1 provides tabular information summarizing all fields participating in the Fallowing Program. Those entries highlighted in yellow are the fields inspected during the March 2014 verification inspections; additional information about each of them is provided below.

1.



**Fallowing Program Record No. 71.**

Reclamation Field No. 10218.

Acres: IID = 67.2

Canal: **Dahlia**. Gate No. **79**.

Participating in the 2013-2014  
Fallowing Program.

Start Date: 07/01/2013

End Date: 06/30/2014

Comments:

Photo No. 1 Lock on gate.

Photo No. 2- Disked, fallow.

2.



3.



**Fallowing Program Record No. 325.**

Reclamation Field No. 14208

Acres: IID = 36.0

Canal: **Thistle 5**. Gate No. **21A**.

Participating in the 2013-2014  
Fallowing Program.

Start Date: 07/01/2013

End Date: 06/30/2014

4.



**Fallowing Program Record No. 325 –  
CONTINUED**

Comments:

Photo No. 3: Canal filled with dirt,  
preventing water delivery to field.

Photo No. 4: Lock on gate.

5.



**Fallowing Program Record No. 42.**

Reclamation Field No. 13802.

Acres: IID = 68.4

Canal: **Trifolium 10.** Gate No. **188.**

Participating in the 2013-2014

Fallowing Program.

Start Date: 07/01/2013

End Date: 06/30/2014

Comments:

Photo No. 5: Gate is padlocked (on left  
side of gate structure - in front of the  
bridge plank).

Photo No. 6: Senescent wheat stubble.

6.



7.



**Fallowing Program Record No. 121.**  
 Reclamation Field No. 13835  
 Acres: IID = 69.9  
 Canal: **Trifolium 6.** Gate No. **105.**

Participating in the Calendar Year 2014  
 Fallowing Program.  
 Start Date: 01/01/2014  
 End Date: 12/31/2014

Comments:

Photo No. 7: Lock on gate.

Photo No. 8: Senescent bermuda grass.

8.



9.



**Fallowing Program Record No. 336.**  
 Reclamation Field Nos. 8568 & 14693  
 Acres: IID = 144.5  
 Canal: **Trifolium 6.** Gate No. **109.**

Participating in the 2013-2014  
 Fallowing Program.  
 Start Date: 07/01/2013  
 End Date: 06/30/2014

Comments:

Photo No. 9: Lock on gate.

Photo No. 10: Disked, fallow.

10.



11.



**Fallowing Program Record No. 42.**  
 Reclamation Field No. 7382  
 Acres: IID = 104.2  
 Canal: H. Gate No. 37.

Participating in the 2014 Fallowing Program.

Start Date: 01/01/2014

End Date: 12/31/2014

Comments:

Photo No. 11: Lock on gate.

Photo No. 12: Senescent bermuda grass.

12.



13.



**Fallowing Program Record No. 190.**  
 Reclamation Field No. 7193  
 Acres: IID = 72.0  
 Canal: M. Gate No. 28.

Participating in the 2013-2014 Fallowing Program.

Start Date: 07/01/2013

End Date: 06/30/2014

Comments:

Photo No. 13: Lock on gate.

Photo No. 14: Senescent bermuda grass.

14.



15.

**Fallowing Program Record No. 191.**

Reclamation Field No. 7194

Acres: IID = 74.8

Canal: M. Gate No. 29.

Participating in the 2013- 2014

Fallowing Program.

Start Date: 07/01/2013

End Date: 06/30/2014

Comments:

Photo No. 15: Lock on gate.

Photo No. 16: Senescent bermuda grass.

16.



17.

**Fallowing Program Record No. 140.**

Reclamation Field Nos. 7040 &amp; 14947

Acres: IID = 65.9

Canal: Z. Gate No. 2

Participating in the Calendar Year 2014

Fallowing Program.

Start Date: 01/01/2014

End Date: 12/31/2014

Comments:

Photo No. 17: Lock on gate.

Photo No. 18: Senescent sudan field.

18.



19.



Following Program Record No. 316.  
 Reclamation Field No. 13682  
 Acres: IID = 91.4  
 Canal: S. Gate No. 4.

Participating in the 2013-2014  
 Following Program.  
 Start Date: 07/01/2013  
 End Date: 06/30/2014

Comments:

Photo No. 19: Lock on gate.  
 Photo No. 20: Disked, fallow.

20.



21.



**Following Program Record No. 179.**  
 Reclamation Field Nos. 7213 & 14651  
 Acres: IID = 73.4  
 Canal: L. Gate No.11.

Participating in the 2013-2014  
 Following Program.  
 Start Date: 07/01/2013  
 End Date: 06/30/2014

Comments:

Photo No. 21: Lock on gate.  
 Photo No. 22: Disked, fallow.

22.



23.



**Fallowing Program Record No. 169.**  
 Reclamation Field No. 7366 and 7367  
 Acres: IID = 149.4  
 Canal: I. Gate No. 12.

Participating in the 2013-2014  
 Fallowing Program.  
 Start Date: 09/01/2013  
 End Date: 06/30/2014

Comments:

Photo No. 23: Lock on gate.

Photo No. 24: Senescent bermuda  
 grass.

24.



25.



**Fallowing Program Record No. 165.**  
 Reclamation Field No. 7425  
 Acres: IID = 151.6  
 Canal: H. Gate No. 16.

Participating in the 2013-2014  
 Fallowing Program.  
 Start Date: 07/01/2013  
 End Date: 06/30/2014

Comments:

Photo No. 25: Lock on gate.

Photo No. 26: Disked, fallow.

26.



27.

**Fallowing Program Record No. 168.**

Reclamation Field No. 7357

Acres: IID = 72.6

Canal: **I. Gate No. 2.**

Participating in the 2013-2014

Fallowing Program.

Start Date: 07/01/2013

End Date: 06/30/2014

Comments:

Photo No. 27: Lock on gate.

Photo No. 28: Disked, fallow, turnouts full of dirt.

28.



29.

**Fallowing Program Record No. 20.**

Reclamation Field No. 7484

Acres: IID = 26.5

Canal: **East Highline. Gate No.18.**

Participating in the Calendar Year 2014

Fallowing Program.

Start Date: 01/01/2014

End Date: 12/31/2014

Comments:

Photo No. 29: Lock on gate.

Photo No. 30: Disked, fallow.

30.



31.

**Fallowing Program Record No. 87.**

Reclamation Field No. 13682

Acres: IID = 109.1

Canal: **E.** Gate No. **22A.**

Participating in the 2013-2014

Fallowing Program.

Start Date: 07/01/2013

End Date: 06/30/2014

**Comments:**

Photo No. 31: No lock on gate since there are two turnout gates: 22A and 22B, which serve two fields.

Photo No. 32: Road in foreground blocks lateral ditch so 109.1-acre field has no water service.

Photo no. 33: Senescent stubble in field.

32.



33.



34.

**Fallowing Program Record No. 93.**

Reclamation Field No. 9926

Acres: IID = 149.9

Canal: **Orient.** Gate No. **4.**

Participating in the Calendar 2014

Fallowing Program.

Start Date: 01/01/2014

End Date: 12/31/2014

**Comments:**

35.



**Fallowing Program Record No. 93. -  
CONTINUED**

Photo No. 34: Lock on gate

Photo No. 35: Senescent sudan grass.

36.



**Fallowing Program Record No. 274.**

Reclamation Field No. 9786.

Acres: IID = 7

Canal: **Orchid**. Gate No. 11.

Participating in the 2013-2014  
Fallowing Program.

Start Date: 07/01/2013

End Date: 06/30/2014

Comments:

Photo No. 36: Lock on gate.

37.



Photo No. 37: Senescent bermuda  
grass.

38.



**Fallowing Program Record No. 262.**

Reclamation Field No. 10071

Acres: IID = 145.3

Canal: **Oat**. Gate No. 26.

Participating in the 2013-2014  
Fallowing Program.

Start Date: 07/01/2013

End Date: 06/30/2014

39.



**Fallowing Program Record No. 262 –  
CONTINUED**

Comments:

Photo No. 38: Lock on gate.

Photo No. 39: Partially senescent sudan grass.

40.



**Fallowing Program Record No. 99.**

Reclamation Field No. 10511

Acres: IID = 72.3

Canal: **Pine**. Gate No. **28**.

Participating in the 2014 Fallowing Program.

Start Date: 01/01/2014

End Date: 12/31/2014

41.



Comments:

Photo No. 40: No lock on gate.

Photo No. 41: The entire lateral ditch is blocked off.

Photo. No. 42: Disked, fallow.

42.



43.

**Fallowing Program Record No. 62.**

Reclamation Field No. 14184

Acres: IID = 40.7

Canal: **Mesa 5.** Gate No. **69.**Participating in the Calendar 2014  
Fallowing Program.

Start Date: 01/01/2014

End Date: 12/31/2014

**Comments:**

Photo No. 43: Gate not locked.

Photo No. 44: Dirt tap in ditch.

Photo No. 45: Partially senescent with  
alfalfa volunteers.

44.



45.



46.

**Fallowing Program Record No. 3.**

Reclamation Field No. 12401

Acres: IID = 37.9

Canal: **Alamitos**. Gate No. **64**.Participating in the Calendar Year 2014  
Fallowing Program.

Start Date: 01/01/2014

End Date: 12/31/2014

## Comments:

Photo No. 46: Lock on gate.

Photo No. 47: Standing alfalfa crop  
purportedly not irrigated after 1/1/2014.Reclamation has confirmed that no  
2014 water deliveries have been made  
to this field. Reclamation will monitor  
through satellite imagery to re-verify its  
fallow condition.

47.



48.

**Fallowing Program Record No. 49.**

Reclamation Field No. 11869

Acres: IID = 70.5

Canal: **Ash Lateral 5**. Gate No. **128**.Participating in the 2013-2014  
Fallowing Program.

Start Date: 07/01/2013

End Date: 06/30/2014

## Comments:

Photo No. 48: Lock on gate.

Photo No. 49: Partially green alfalfa  
regrowth.

49.



50.

**Fallowing Program Record No. 109.**

Reclamation Field No. 11891

Acres: IID = 31.5

Canal: **Eucalyptus**. Gate No. 37.

Participating in the 2013-2014

Fallowing Program.

Start Date: 07/01/2013

End Date: 06/30/2014

## Comments:

Photo No. 50: Lock on gate.

Photo No. 51: Partially green bermuda grass.

51.



52.

**Fallowing Program Record No. 129.**

Reclamation Field No. 13508

Acres: IID = 78.7

Canal: **Woodbine**. Gate No. 42.

Participating in the Calendar Year 2014

Fallowing Program.

Start Date: 01/01/2014

End Date: 12/31/2014

## Comments:

Photo No. 52: Lock on gate.

Photo No. 53: Green oat regrowth.

53.



Reclamation has confirmed that no 2014 water deliveries have been made to this field. Reclamation will monitor through satellite imagery to re-verify its fallow condition.

54.



**Fallowing Program Record No. 382.**  
 Reclamation Field No. 13017  
 Acres: IID = 57.0  
 Canal: **Wormwood.** Gate No. **52.**

Participating in the 2013-2014  
 Fallowing Program.  
 Start Date: 07/01/2013  
 End Date: 06/30/2014

Comments:  
 Photo No. 54: Lock on gate.  
 Photo No. 55: Partial alfalfa regrowth.

55.



56.



**Fallowing Program Record No. 363.**  
 Reclamation Field No. 13091  
 Acres: IID = 43.7  
 Canal: **Westside Main.** Gate No. **2.**

Participating in the 2013-2014  
 Fallowing Program.  
 Start Date: 07/01/2013  
 End Date: 06/30/2014

Comments:  
 Photo No. 56: Main gate unlocked as  
 seen in photo no. 58. Jack gate locked  
 as seen in photo no. 56.  
 Photo No. 57: Disked, fallow.

57.



58.



**Fallowing Program Record No. 363 -  
- CONTINUED.**

Photo no. 58: Main gate is unlocked.

59.



**Fallowing Program Record No. 154.**  
Reclamation Field No. 12195  
Acres: IID = 71.6  
Canal: **Forgetmenot**. Gate No. 2.

Participating in the 2013-2014  
Fallowing Program.  
Start Date: 07/01/2013  
End Date: 06/30/2014

**Comments:**

Photo No. 59: Lock on gate.

Photo No. 60: Partially green alfalfa  
regrowth.

60.



61.

**Fallowing Program Record No. 162.**

Reclamation Field No. 11998

Acres: IID = 48.3

Canal: **Foxglove**. Gate No. **21**.Participating in the 2013-2014  
Fallowing Program.

Start Date: 07/01/2013

End Date: 06/30/2014

## Comments:

Photo Nos. 61: Lock on gate.

Photo No. 62: Partially green alfalfa  
regrowth.

62.



63.

**Fallowing Program Record No. 151.**Reclamation Field Nos. 10674, 10706,  
& 10723

Acres: IID = 114.6

Canal: **Flax**. Gate No. **8**.Participating in the 2013-2014  
Fallowing Program.

Start Date: 07/01/2013

End Date: 06/30/2014

## Comments:

Photo No. 63: Lock on gate.

Photo Nos. 64, 65 and 66: The one gate  
shown in the photo above serves three  
fields; all three fields are fallow.

64.



65.



**Following Program Record No. 151 -  
CONTINUED**

66.



## **B: Main Canal Seepage Interception System Verification**

IID's MCSIS project consists of 22 pump stations and appurtenant structures collectively providing a total recovery capacity of approximately 40,000 acre-feet annually. For each of the systems, intercepted seepage water pumped to the main canal is continuously metered to estimate the conserved water yield. Consumptive use reduction accounting occurs at IID's Imperial Dam diversion point (Station 60) to account for total losses from each pump system to Imperial Dam.

In 2013, the MCSIS was projected to pump approximately 30,000 to 35,000 acre-feet of seepage water. Two of the 22 MCSIS pump stations in operation were randomly selected for inspection during the March 2014 verification inspection: those visited were the Holtville 6 & Holtville 7 pump stations. Provisional data indicate that, for the period January 1, 2013 through December 31, 2013: 2,921 acre-feet of water were pumped from the two inspected seepage interception systems; and, collectively, 30,222 acre-feet of water were pumped from the entire MCSIS (see Attachment #2).

1.



### IID MCSIS Location: Holtville 6 Pump Station

Avg. Oper. Pump Rate during three-day period  
3/23-25/2014: 5.38 cfs.

Outlet pipe dia.: 16".

Photo No. 1. Seepage intercept pump.

2.



Photo No. 2. Pump Station Instrumentation within the Electrical and Controller Panel. The instantaneous pump rate when this photo was taken was 3.710 cfs and the electrical conductivity of the water being pumped was 1.78 microSiemens/centimeter (mS/cm).

3.



Photo No. 3: Close-up photo of the readout on the sonic flowmeter showing the instantaneous flowrate to be 3.729 cfs at the IIS MCSIS Holtville 6 Pumping Station at the instant the photograph was taken.

3.

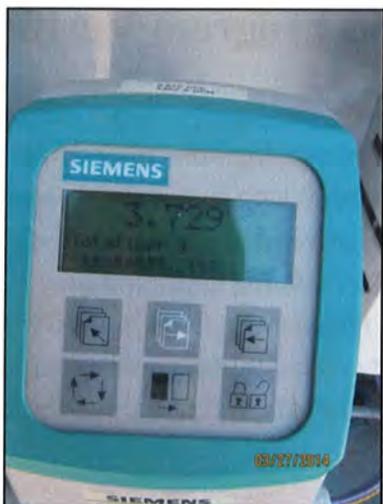


Photo No. 3: Close-up photo of the readout on the sonic flowmeter showing the instantaneous flowrate to be 3.729 cfs at the IIS MCSIS Holtville 6 Pumping Station when this photograph was taken.

4.



**IID MCSIS Location: Holtville 7 Pump Station**  
Avg. Oper. Pump Rate during three-day period 3/23-25/2014: 5.99 cfs.  
Outlet pipe dia.: 16".

Photo No. 4. Pump Station Instrumentation within the Electrical and Controller Panel. When photo was taken the instantaneous pump rate was 0.00 cfs and the electrical conductivity of water in the pipe was 1.73 microSiemens/centimeter (mS/cm).

5.



Photo No. 5. Close-up photo of the readout on the sonic flowmeter showing the instantaneous flowrate to be 0.00 cfs at the IIS MCSIS Holtville 7 Pumping Station when this photo was taken. A large tracked backhoe was digging muck out of the drainway pump inlet channel to facilitate pumping during our visit.

6.



Photo No. 6. IID MCSIS Holtville 7 motor, pump and its 16-inch outlet pipe.

## C. On-Farm Efficiency Conservation Program Verification

IID is implementing its OFECP to achieve efficiency conservation goals. Water conserved through this program may be used to meet IID's water transfer obligations or to fulfill IOPP payback obligations. The Program's goal is to conserve 20,000 acre-feet in 2013 and 40,000 acre-feet in 2014 by implementing water use efficiency improvement projects on their farms. For the Spring 2014 verification, Reclamation selected 13 fields, totaling approximately 1,278 acres. The conservation measures inspected included: tailwater recovery systems, sprinkler and drip irrigation systems, event management, slope management and contouring, and changing the method (from flood or furrow irrigation to sprinkler irrigation) of wetting the field prior to pre-planting tillage. Inspection findings are reported below.

1.



### Reclamation Field No. 7435

Acres: 70

Canal: **Elm.** Gate No. **54**

2013-2014 On-Farm Efficiency Program  
Conservation Measure (CM): irrigation water management (IWM).

Comments:

Photo No. 1: This producer has switched from 40" beds with furrows in-between to 80" beds; used sprinkler irrigation to achieve crop (spinach) emergence; and will switch to flood irrigation later. IID personnel advised pre-plant soil tillage was done after sprinkler-irrigation (not flood); thus reducing pre-planting water application; most water conservation on this field occurred in late 2013.

2.



### Reclamation Field Nos. 11560 & 11561

Acres: 205

Canal: **Elder.** Gate No. **95**

CM Cascading Tailwater Return System (TRS).  
2014 On-Farm Efficiency Program

Comments:

Photo No. 2: TRS was originally installed under the 1988 MWD/IID Agreement: owner was reimbursed for construction and operation costs plus \$15/ acre for "impact costs." Owner has signed up for IID's 2014 OFECP; will be paid for reduction in deliveries below baseline use, e.g., for "conserved water."

3.



**Reclamation Field Nos. 11560 & 11561 - continued**

Photo No. 3- Pipeline outlet delivery point into supply ditch –thus allowing collected and pumped tailwater to be applied to an adjoining field; part of a permanent, cascading TRS.

4.



**Reclamation Field No. 12365**

Acres: 35

Canal: **Elder**. Gate No. **28**

CM: Subsurface drip irrigation (SDI)

2013-2014 On-Farm Efficiency Program

Comments:

Photo No. 4: Riser for maintenance of drip irrigation buried under alfalfa field.

5.



**Reclamation Field No. 12365 – continued**

Photo No. 5: Power & pumping unit for permanent drip irrigation system; filtration system in far end of pump system yard.

6.



**Reclamation Field No. 12365 – continued**

Photo No. 6: The pump system's flexible orange inlet pipe seen in photo draws water from the concrete ditch through the drip irrigation filtration system and discharges into white pipeline seen in rear of the photo and hence into buried drip irrigation pipeline network.

7.

**Reclamation Field No. 13902**

Acres: 35

Canal: **Ash 15 Lateral**. Gate No. **130**

CM: Irrigation Water Management (irrigation scheduling and event management)

2013-2014 On-Farm Efficiency Program

Comments:

Photo No. 7: A pan ditch has been installed along the bottom of the field.

8.

**Reclamation Field No. 12394**

Acres: 31

Canal: **Ash**. Gate No. **57**

CM: Precision land leveling

2013-2014 On-Farm Efficiency Program

Comments:

Photo No. 8: Carrot crop on 31-acre intensively-leveled field. Producer is participating in the OFECP: conserving water by improving surface irrigation efficiency through precision land leveling. IID officials advised field has been graded to have a 0.2'/100' down-field slope and a 0.1'/100' cross-slope.

9.

**Reclamation Field No. 12104**

Acres: 78

Canal: **HLS**. Gate No. **208**

2013-2014 On-Farm Efficiency Program

Comments:

Photo No. 9: CM = field configuration (ran furrows on the cross-slope), planted alfalfa on beds, is irrigating with gated pipe and intends to sprinkler irrigate the field during upcoming Fall season.

10.

**Reclamation Field Nos. 10210 & 10211**

Acres: Pepper 3 =70 acres. Pepper 3A = 65

Canal: **Pepper**. Gate No. **3 and 3A**

CM: Cascading tailwater return system (TRS)

2013-2014 On-Farm Efficiency Program

Comments:

Photo No. 10: One field is alfalfa and the other is sudan-grass.

11.

**Reclamation Field Nos. 9644**

Acres: 35

Canal: **Oxa**. Gate No. **30**

2013-2014 On-Farm Efficiency Program

CM: Portable TRS

Comments:

Photo No. 11: Crop is onions that will be dehydrated for market. Photo shows tractor power unit for pumping water through pipeline seen in photo to the top end of the field. Pipe-end joint gasket appears to be missing due to water on ground seen in photo. Tractor was not operating at time of our visit.

12.

**Reclamation Field No. 8608**

Acres: 158

Canal: **Munyon**. Gate No. **11**

2013-2014 On-Farm Efficiency Program

CM: Sprinkler irrigation in lieu of surface irrigation for pre-seeding tillage work and for germinating the seeded alfalfa crop.

Comments:

Photo No. 12: Alfalfa planted onto beds.

13.

**Reclamation Field No. 8671**

Acres: 75

Canal: **Munyon**. Gate No. **1**

2013-2014 On-Farm Efficiency Program

CM: Sprinkler irrigation in lieu of surface irrigation

Comments:

Photo No. 13: Onion field being irrigated with sprinklers – three-inch diameter sprinkler pipe can be seen in this photo.

14.

**Reclamation Field Nos. 7742, 7743 & 7793**

Acres: 140

Canal: **C Lateral**. Gate No. **C-2**

2013-2014 On-Farm Efficiency Program

CM: Permanent installation subsurface drip irrigation (SDI)

Comments:

Photo No. 14: underlying an alfalfa field.

15.

**Reclamation Field Nos. 7742, 7743 & 7793 - continued**

Photo No. 15: Pumping plant and small reservoir water supply for permanent drip irrigation system seen in photo.

16.

**Reclamation Field Nos. 14542, 14872 & 15176**

Acres: 74

Canal: **Highline**. Gate No. **21**

2013-2014 On-Farm Efficiency Program

CM: On-ground drip irrigation system

Comments:

Photo No.16: Microtape drip irrigation system installed in newly-planted date orchard. Plastic pipeline in photo foreground. Drip irrigation microtape is laid on top of ground and emitters are punched into the line adjacent to the date trees.

17.

**Reclamation Field Nos. 7093**

Acres: 69 currently

Canal: **Q**. Gate No. **10**

2013-2014 On-Farm Efficiency Program

CM: Minor water management improvements including bedding the date tree rows, putting narrow water ditches on either side of the trees and installing *tablitas* (boards serving as gates in front of short sections of 3" PVC pipe seen in photo down-channel of the tree) in-between every 6<sup>th</sup> tree to improve irrigation efficiency and to control the flow of water due to the slope on this field (slope-control measure).

## Comments:

Photo No. 17: 69 acres of dates planted so far – additional dates will go in to bring the orchard total to 137 acres during 2014. The *tablitas* set-up will require manual labor/management to irrigate but the producer should realize considerable water savings over what would be the case with border-dike flood irrigation with border dikes between the rows of date trees.

18.

**Reclamation Field Nos. 7081, 7082 & 15012**

Acres: 140

Canal: **C Lateral**. Gate No. **C-2**

2013-2014 On-Farm Efficiency Program

CM: terracing, field reconfiguration and cascading tailwater return system installation

## Comments:

Photo No. 18: Crop is Bermuda grass in the east field and alfalfa in the west field.

19.

**Reclamation Field Nos. 8483 & 8520**

Acres: 140

Canal: **Tri-2**. Gate No. **32**

2013-2014 On-Farm Efficiency Program

CM: Irrigation scheduling (IWM)

## Comments:

Photo No. 4: 1 field harvested and 1 field will be harvested soon.

20.

**Reclamation Field Nos. 9093, 9165 & 14973**

Acres: 78.3 + 41 + 60

Canal: **Best**. Gate No. 105 and 105A

2013-2014 On-Farm Efficiency Program

CM: Cascading TRS, pond and siphon to bring water from the pond over to the pumping pit

## Comments:

Photo No. 20: The pump for the TRS has not yet been installed. This work was proceeding but not yet completed. The crop on the three fields is Bermuda grass. Photo shows the pond area adjacent to the Highway 111 interchange.

21.



Photo No. 21: Bermuda fields that will be irrigated with the water to be provided through the cascading TRS.

22.



### Reclamation Field Nos. 10040 & 10041

Acres: 138 + 83

Canal: **Redwood**. Gate No. **66**

2013-2014 On-Farm Efficiency Program

CM: Sprinkler irrigation in lieu of surface irrigation during a portion of the irrigation season.

Comments:

Photo No. 22: Currently the sprinkler pipe is on onion field. When the onions are harvested, the adjoining beet field (which has a late delivery date to the beet dump) will be “maintenance irrigated” with the sprinkler pipe to reduce water depletion to maintain sugar beet crop prior to harvest date – which will be later in the year – and thus additional irrigations will be required. This 3-inch diameter sprinkler pipe is equipped with Nelson Windfighter® Rotator® units at the top of each riser pipe (as opposed to an impact sprinkler).

23.



Photo No. 23: Beet field onto which the sprinkler pipe will be laid once the onion crop on the east side of the road has been harvested. The beet development is sufficient the crop could be harvested *if* the beet dump was ready for this crop – but the delivery date is further into this year. The beets are on rows that run East to West and water is in a delivery channel constructed so each row can be irrigated. Only every other row was being irrigated at this time.

Based on the observations made and the information collected during the field verification inspection, the implementation of the extraordinary conservation measures noted above is:

Confirmed     Unconfirmed

John W. Shields  
Inspector

9/16/2014  
Date

[Signature]  
Group Manager

9/16/14  
Date

ATTACHMENT NO. 1

Canal	Gate	FSA Acreage	Start Date	End Date	Canal	Gate	FSA Acreage	Start Date	End Date	Canal	Gate	FSA Acreage	Start Date	End Date
1 Acacia	3	147.1	6/1/2013	6/30/2014	128 Fern	88	60.3	7/1/2013	6/30/2014	256 Oakley	65A	102.3	7/1/2013	6/30/2014
2 Acacia	5	69.0	7/1/2013	6/30/2014	129 Fern	88	102.1	7/1/2013	6/30/2014	257 Oasis	28	103.4	7/1/2013	6/30/2014
3 Acacia	6	66.5	1/1/2013	6/30/2014	130 Fig	10	105.4	7/1/2013	6/30/2014	258 Oasis	28	70.4	5/1/2013	6/30/2014
4 Acacia	6A	73.4	7/1/2013	6/30/2014	131 Fig	21	59.6	7/1/2013	6/30/2014	259 Oasis	29	66.7	7/1/2013	6/30/2014
5 Acacia	8	72.5	7/1/2013	6/30/2014	132 Fig	23	119.7	7/1/2013	6/30/2014	260 Oasis	28A	74.1	7/1/2013	6/30/2014
6 Acacia	10	143.9	7/1/2013	6/30/2014	133 Fig	34	72.8	7/1/2013	6/30/2014	261 Oasis	30	142.9	7/1/2013	6/30/2014
7 Acacia	26A	73.9	8/1/2013	6/30/2014	134 Fig	35	104.6	7/1/2013	6/30/2014	262 Oat	28	145.3	7/1/2013	6/30/2014
8 Acacia	27	36.2	7/1/2013	6/30/2014	135 Filaree	3D	115.6	7/1/2013	6/30/2014	263 Oat	27	110.0	7/1/2013	6/30/2014
9 Acacia	29	149.2	7/1/2013	6/30/2014	136 Filaree	9A	92.5	7/1/2013	6/30/2014	264 Oat	29	144.6	7/1/2013	6/30/2014
10 Acacia	34	151.5	7/1/2013	6/30/2014	137 Filaree	10	60.4	7/1/2013	6/30/2014	265 Occident	2	147.4	7/1/2013	6/30/2014
11 Acacia	47	138.2	7/1/2013	6/30/2014	138 Filaree	10A	126.1	7/1/2013	6/30/2014	266 Occident	20	73.2	7/1/2013	6/30/2014
12 Acacia	52	67.9	1/1/2013	6/30/2014	139 Filaree	10B	141.7	6/1/2013	6/30/2014	267 Occident	20A	78.1	7/1/2013	6/30/2014
13 Acacia	57	97.4	8/1/2013	6/30/2014	140 Filaree	10C	18.1	7/1/2013	6/30/2014	268 Occident	21	129.3	7/1/2013	6/30/2014
14 Acacia	60	59.5	8/1/2013	6/30/2014	141 Filaree	10D	22.0	7/1/2013	6/30/2014	269 Ohmar	1	87.4	7/1/2013	6/30/2014
15 Acacia	68	21.4	7/1/2013	6/30/2014	142 Filaree	10E	188.4	7/1/2013	6/30/2014	270 Oleander	3	82.6	7/1/2013	6/30/2014
16 Acacia	68	40.8	7/1/2013	6/30/2014	143 Filaree	10F	19.0	7/1/2013	6/30/2014	271 Oleander	29	132.1	7/1/2013	6/30/2014
17 Acacia	69	139.1	7/1/2013	6/30/2014	144 Filaree	10H	282.1	6/1/2013	6/30/2014	272 Oleander Sidemain	2	148.2	7/1/2013	6/30/2014
18 Acacia	74	102.4	7/1/2013	6/30/2014	145 Filaree	11	19.0	7/1/2013	6/30/2014	273 Oleander Sidemain	2A	75.3	7/1/2013	6/30/2014
19 Acacia	91	68.9	7/1/2013	6/30/2014	146 Filaree	12	300.3	6/1/2013	6/30/2014	274 Orchid	11	72.2	7/1/2013	6/30/2014
20 Acacia	91A	74.2	7/1/2013	6/30/2014	147 Filaree	13	414.6	7/1/2013	6/30/2014	275 Orchid	16	66.4	8/1/2013	6/30/2014
21 Alamitos	33	145.8	7/1/2013	6/30/2014	148 Filaree	17	126.2	7/1/2013	6/30/2014	276 Orchid	36	69.3	7/1/2013	6/30/2014
22 Alamitos	35	147.3	7/1/2013	6/30/2014	149 Filaree	25	168.4	7/1/2013	6/30/2014	277 Orient	2	71.9	7/1/2013	6/30/2014
23 Alamitos	53	139.3	7/1/2013	6/30/2014	150 Filaree	28	147.7	7/1/2013	6/30/2014	278 Omta	1A	74.2	7/1/2013	6/30/2014
24 Alder	3	36.5	1/1/2013	6/30/2014	151 Flax	8	114.6	7/1/2013	6/30/2014	279 Omta	23	141.0	6/1/2013	6/30/2014
25 Alder	4A	35.7	1/1/2013	6/30/2014	152 Flax	10	70.1	7/1/2013	6/30/2014	280 Omta	28	72.4	7/1/2013	6/30/2014
26 Alder	5	36.3	1/1/2013	6/30/2014	153 Forgetmenot	1	70.3	7/1/2013	6/30/2014	281 Omta	29	75.4	7/1/2013	6/30/2014
27 Alder	5A	71.4	8/1/2013	6/30/2014	154 Forgetmenot	2	71.6	7/1/2013	6/30/2014	282 Omta	29A	33.6	7/1/2013	6/30/2014
28 Alder	6	132.7	8/1/2013	6/30/2014	155 Forgetmenot	3	71.1	7/1/2013	6/30/2014	283 Palm	24	75.4	7/1/2013	6/30/2014
29 Alder	7	73.0	8/1/2013	6/30/2014	156 Forgetmenot	7	70.5	7/1/2013	6/30/2014	284 Palm	32	142.3	7/1/2013	6/30/2014
30 Alder	8	73.0	7/1/2013	6/30/2014	157 Fonglove	10	66.7	7/1/2013	6/30/2014	285 Pampas	23A	73.1	7/1/2013	6/30/2014
31 Alder	8A	72.9	7/1/2013	6/30/2014	158 Fonglove	14	71.8	7/1/2013	6/30/2014	286 Pampas	32	78.7	7/1/2013	6/30/2014
32 Alder	17	35.7	6/1/2013	6/30/2014	159 Fonglove	17	33.3	7/1/2013	6/30/2014	287 Pampas	33	73.6	7/1/2013	6/30/2014
33 Alder	22	108.3	7/1/2013	6/30/2014	160 Fonglove	18	36.4	7/1/2013	6/30/2014	288 Pear	9	145.4	7/1/2013	6/30/2014
34 Alder	28	62.4	7/1/2013	6/30/2014	161 Fonglove	20	83.3	7/1/2013	6/30/2014	289 Pear	11	135.7	7/1/2013	6/30/2014
35 Alder	27A	127.3	7/1/2013	6/30/2014	162 Fonglove	21	48.3	7/1/2013	6/30/2014	290 Pear	42A	72.8	7/1/2013	6/30/2014
36 Alder	58	16.3	6/1/2013	6/30/2014	163 Fonglove	41	80.6	7/1/2013	6/30/2014	291 Pear	69	139.5	7/1/2013	6/30/2014
37 Alder	85	35.8	7/1/2013	6/30/2014	164 G	36	150.3	7/1/2013	6/30/2014	292 Pear	69A	37.9	7/1/2013	6/30/2014
38 Alder	88	36.0	7/1/2013	6/30/2014	165 H	16	151.6	7/1/2013	6/30/2014	293 Pear	70	127.8	8/1/2013	6/30/2014
39 Alder	88A	34.8	7/1/2013	6/30/2014	166 H	20	147.8	6/1/2013	6/30/2014	294 Peach	28	77.0	7/1/2013	6/30/2014
40 Alder	89A	35.7	7/1/2013	6/30/2014	167 H	22	148.7	7/1/2013	6/30/2014	295 Pepper	38	132.4	7/1/2013	6/30/2014
41 All American	30	131.7	7/1/2013	6/30/2014	168 I	2	72.6	7/1/2013	6/30/2014	296 Pine	24	32.8	7/1/2013	6/30/2014
42 Ash	39	140.8	7/1/2013	6/30/2014	169 I	12	149.4	9/1/2013	6/30/2014	297 Pine	25A	71.0	7/1/2013	6/30/2014
43 Ash	61A	147.2	7/1/2013	6/30/2014	170 I	32	71.9	7/1/2013	6/30/2014	298 Pomele	22	88.5	7/1/2013	6/30/2014
44 Ash	65	121.5	7/1/2013	6/30/2014	171 I	33	71.8	7/1/2013	6/30/2014	299 Pomele	29	148.5	7/1/2013	6/30/2014
45 Ash	75	35.3	1/1/2013	6/30/2014	172 I	38	154.8	7/1/2013	6/30/2014	300 Pomele	33	73.9	7/1/2013	6/30/2014
46 Ash	81	73.5	7/1/2013	6/30/2014	173 J	6	70.7	7/1/2013	6/30/2014	301 R	9	68.4	6/1/2013	6/30/2014
47 Ash Lateral 3	172	140.0	7/1/2013	6/30/2014	174 J	7	75.2	7/1/2013	6/30/2014	302 Redwood	38	168.8	7/1/2013	6/30/2014
48 Ash Lateral 3	204	52.8	7/1/2013	6/30/2014	175 J	32	143.7	7/1/2013	6/30/2014	303 Redwood	41	361.8	7/1/2013	6/30/2014
49 Ash Lateral 5	123	70.5	7/1/2013	6/30/2014	176 K	24	144.8	7/1/2013	6/30/2014	304 Redwood	85A	139.3	6/1/2013	6/30/2014
50 Ash Lateral 5	163	76.2	7/1/2013	6/30/2014	177 K	28	71.9	7/1/2013	6/30/2014	305 Rockwood	30	98.1	7/1/2013	6/30/2014
51 Birch	1	135.4	7/1/2013	6/30/2014	178 L	6	73.8	7/1/2013	6/30/2014	306 Rockwood	121	157.6	7/1/2013	6/30/2014
52 Birch	40	35.3	7/1/2013	6/30/2014	179 L	11	73.4	7/1/2013	6/30/2014	307 Rockwood	122	155.7	7/1/2013	6/30/2014
53 Birch	1	100.8	7/1/2013	6/30/2014	180 L	12	88.7	7/1/2013	6/30/2014	308 Rockwood	123	151.1	7/1/2013	6/30/2014
54 Birch	1A	137.8	7/1/2013	6/30/2014	181 L	31	72.7	7/1/2013	6/30/2014	309 Rockwood	124	150.1	7/1/2013	6/30/2014
55 Birch Lateral 3	33	91.3	7/1/2013	6/30/2014	182 L	32	141.3	7/1/2013	6/30/2014	310 Rockwood	171	69.2	7/1/2013	6/30/2014

56	Briar	8	142.1	6/1/2013	6/30/2014	10	71.3	7/1/2013	6/30/2014	3111	Rose	37A	68.6	7/1/2013	6/30/2014
57	Best	47	141.6	7/1/2013	6/30/2014	2	70.7	7/1/2013	6/30/2014	312	Rose	53	46.9	7/1/2013	6/30/2014
58	Best	108A	38.2	7/1/2013	6/30/2014	4	53.9	7/1/2013	6/30/2014	313	Rubber	A	135.6	7/1/2013	6/30/2014
59	C	23	139.2	7/1/2013	6/30/2014	2	73.3	7/1/2013	6/30/2014	314	Rubber	19	116.8	7/1/2013	6/30/2014
60	Central Main	15	314.1	7/1/2013	6/30/2014	5A	79.6	7/1/2013	6/30/2014	315	Rubber	26	147.1	7/1/2013	6/30/2014
61	Central Main	16	127.3	7/1/2013	6/30/2014	19	72.7	7/1/2013	6/30/2014	316	S	4	91.4	7/1/2013	6/30/2014
62	Daffodi	12A	74.0	7/1/2013	6/30/2014	20	68.0	7/1/2013	6/30/2014	317	S	6	33.2	7/1/2013	6/30/2014
63	Dahlia	10	72.7	7/1/2013	6/30/2014	190 M	72.0	7/1/2013	6/30/2014	318	South Alamo	94	33.4	7/1/2013	6/30/2014
64	Dahlia	15	71.8	7/1/2013	6/30/2014	191 M	74.9	7/1/2013	6/30/2014	319	South Dale	3	75.5	7/1/2013	6/30/2014
65	Dahlia	21	56.3	7/1/2013	6/30/2014	192	80.4	7/1/2013	6/30/2014	320	Spurse 5	82	55.4	7/1/2013	6/30/2014
66	Dahlia	22	65.8	7/1/2013	6/30/2014	193	41.1	7/1/2013	6/30/2014	321	Standard	18 & 18A	216.0	7/1/2013	6/30/2014
67	Dahlia	22A	74.0	7/1/2013	6/30/2014	194	68.1	7/1/2013	6/30/2014	322	Standard	1	77.1	7/1/2013	6/30/2014
68	Dahlia	23	21.7	7/1/2013	6/30/2014	195	61.1	7/1/2013	6/30/2014	323	T	1	35.1	7/1/2013	6/30/2014
69	Dahlia	24	72.2	7/1/2013	6/30/2014	196	138.4	7/1/2013	6/30/2014	324	Thistle 5	21	77.1	7/1/2013	6/30/2014
70	Dahlia	24A	66.7	7/1/2013	6/30/2014	197	143.9	7/1/2013	6/30/2014	325	Thistle 5	21A	36.0	7/1/2013	6/30/2014
71	Dahlia	79	67.2	7/1/2013	6/30/2014	198	78.6	7/1/2013	6/30/2014	326	Thistle Main	40	75.2	7/1/2013	6/30/2014
72	Dandelion	7	94.8	7/1/2013	6/30/2014	199	148.9	7/1/2013	6/30/2014	327	Township	1	85.9	7/1/2013	6/30/2014
73	Dogwood	F	142.6	7/1/2013	6/30/2014	200	144.2	7/1/2013	6/30/2014	328	Township	23	104.9	7/1/2013	6/30/2014
74	Dogwood	1A	110.0	8/1/2013	6/30/2014	201	133.9	7/1/2013	6/30/2014	329	Township	24	99.2	7/1/2013	6/30/2014
75	Dogwood	9	31.4	1/1/2013	6/30/2014	202	65.6	7/1/2013	6/30/2014	330	Township	50A	70.1	7/1/2013	6/30/2014
76	Dogwood	13A	74.9	1/1/2013	6/30/2014	203	68.6	7/1/2013	6/30/2014	331	Trifolium 3	51	144.4	7/1/2013	6/30/2014
77	Dogwood	34	69.3	7/1/2013	6/30/2014	204	35.1	7/1/2013	6/30/2014	332	Trifolium 4	67	36.3	7/1/2013	6/30/2014
78	Dogwood	56	72.4	7/1/2013	6/30/2014	205	35.7	7/1/2013	6/30/2014	333	Trifolium 5	87	71.0	7/1/2013	6/30/2014
79	Dogwood	57	35.8	7/1/2013	6/30/2014	206	76.3	7/1/2013	6/30/2014	334	Trifolium 5	87A	99.0	7/1/2013	6/30/2014
80	Dogwood	80	25.2	7/1/2013	6/30/2014	207	78.6	7/1/2013	6/30/2014	335	Trifolium 6	106A	68.8	7/1/2013	6/30/2014
81	Dogwood	81A & 82	71.5	7/1/2013	6/30/2014	208	69.8	7/1/2013	6/30/2014	336	Trifolium 6	109	144.5	7/1/2013	6/30/2014
82	D West	38	35.8	7/1/2013	6/30/2014	209	136.0	7/1/2013	6/30/2014	337	Trifolium 7	134	71.5	7/1/2013	6/30/2014
83	D West	39	42.0	7/1/2013	6/30/2014	210	71.8	7/1/2013	6/30/2014	338	Trifolium 7	134A	75.1	7/1/2013	6/30/2014
84	E	4	139.2	5/1/2013	6/30/2014	211	146.8	7/1/2013	6/30/2014	339	Trifolium 8	144	36.3	7/1/2013	6/30/2014
85	E	14	109.1	7/1/2013	6/30/2014	212	71.1	7/1/2013	6/30/2014	340	Trifolium 8	147A	65.4	7/1/2013	6/30/2014
86	E	16	145.2	1/1/2013	6/30/2014	213	140.1	7/1/2013	6/30/2014	341	Trifolium 9	148	36.1	7/1/2013	6/30/2014
87	E	22A	109.1	7/1/2013	6/30/2014	214	74.7	7/1/2013	6/30/2014	342	Trifolium 9	164	37.5	7/1/2013	6/30/2014
88	East Highline	11	89.8	5/1/2013	6/30/2014	215	143.6	5/1/2013	6/30/2014	343	Trifolium 9	166	35.2	7/1/2013	6/30/2014
89	East Highline	48A	34.8	7/1/2013	6/30/2014	216	70.1	7/1/2013	6/30/2014	344	Trifolium 9	171	14.8	7/1/2013	6/30/2014
90	East Highline	48B	31.4	7/1/2013	6/30/2014	217	146.9	7/1/2013	6/30/2014	345	Trifolium 9	172	17.1	7/1/2013	6/30/2014
91	East Highline	48D	44.8	7/1/2013	6/30/2014	218	76.7	7/1/2013	6/30/2014	346	Trifolium 10	188	68.4	7/1/2013	6/30/2014
92	East Highline	10	153.4	7/1/2013	6/30/2014	219	13.3	7/1/2013	6/30/2014	347	Trifolium 10	188	71.1	7/1/2013	6/30/2014
93	East Highline	13	295B	7/1/2013	6/30/2014	220	66.7	5/1/2013	6/30/2014	348	Trifolium 10	191	29.9	7/1/2013	6/30/2014
94	Ebony	4	50.2	1/1/2013	6/30/2014	221	64.3	7/1/2013	6/30/2014	349	Trifolium 10	192	145.2	7/1/2013	6/30/2014
95	Ebony	5	65.9	7/1/2013	6/30/2014	222	74.7	7/1/2013	6/30/2014	350	Trifolium 11	220E	70.6	7/1/2013	6/30/2014
96	Elder	27C	45.7	6/1/2013	6/30/2014	223	30.7	7/1/2013	6/30/2014	351	Trifolium 12	228A	67.2	7/1/2013	6/30/2014
97	Elder	46	107.3	6/1/2013	6/30/2014	224	148.3	7/1/2013	6/30/2014	352	Trifolium 12	230	69.9	7/1/2013	6/30/2014
98	Elder	49	53.4	6/1/2013	6/30/2014	225	127.8	7/1/2013	6/30/2014	353	Trifolium 12	231	41.9	1/1/2013	6/30/2014
99	Elder	63	127.2	7/1/2013	6/30/2014	226	37.1	7/1/2013	6/30/2014	354	Trifolium 13	247	73.1	7/1/2013	6/30/2014
100	Elder	69	76.1	7/1/2013	6/30/2014	227	109.7	7/1/2013	6/30/2014	355	Trifolium 13	254	69.4	6/1/2013	6/30/2014
101	Elder	71	123.0	7/1/2013	6/30/2014	228	39.9	7/1/2013	6/30/2014	356	Trifolium 15	288	73.8	7/1/2013	6/30/2014
102	Elder	88	141.3	7/1/2013	6/30/2014	229	39.3	7/1/2013	6/30/2014	357	Tuberose	140	73.7	7/1/2013	6/30/2014
103	Elder	125	102.8	7/1/2013	6/30/2014	230	72.8	6/1/2013	6/30/2014	358	Tuberose	141	70.0	7/1/2013	6/30/2014
104	Elm	2	62.0	7/1/2013	6/30/2014	231	14.8	7/1/2013	6/30/2014	359	Vail 2A	270	34.2	7/1/2013	6/30/2014
105	Elm	3	36.8	7/1/2013	6/30/2014	232	115.2	9/1/2013	6/30/2014	360	Vail 4	415A	72.7	7/1/2013	6/30/2014
106	Elm	49	144.4	7/1/2013	6/30/2014	233	72.3	7/1/2013	6/30/2014	361	W	3	80.0	7/1/2013	6/30/2014
107	Elm	54	75.0	7/1/2013	6/30/2014	234	141.5	7/1/2013	6/30/2014	362	Westside Main	1	43.7	7/1/2013	6/30/2014
108	Eucalyptus	35	91.0	8/1/2013	6/30/2014	235	87.3	7/1/2013	6/30/2014	363	Westside Main	2	160.0	7/1/2013	6/30/2014
109	Eucalyptus	37	31.5	8/1/2013	6/30/2014	236	149.6	5/1/2013	6/30/2014	364	Westside Main	13	112.7	7/1/2013	6/30/2014
110	Eucalyptus	68	36.3	7/1/2013	6/30/2014	237	146.5	7/1/2013	6/30/2014	365	Westside Main	13A	34.2	5/1/2013	6/30/2014
111	Eucalyptus	73	41.5	7/1/2013	6/30/2014	238	109.5	7/1/2013	6/30/2014	366	Westside Main	93	103.1	1/1/2013	6/30/2014
112	Eucalyptus	110	141.3	7/1/2013	6/30/2014	239	149.7	7/1/2013	6/30/2014	367	Westside Main	100	103.1	1/1/2013	6/30/2014

113	Eucalyptus	122	137.6	7/1/2013	6/30/2014
114	Eucalyptus	125A	71.3	7/1/2013	6/30/2014
115	Eucalyptus	140	71.1	7/1/2013	6/30/2014
116	Eucalyptus	140A	72.3	7/1/2013	6/30/2014
117	Evergreen	14	33.0	7/1/2013	6/30/2014
118	Evergreen	18	63.8	7/1/2013	6/30/2014
119	F	30	72.7	7/1/2013	6/30/2014
120	Fern	12	75.9	7/1/2013	6/30/2014
121	Fern	13A	35.0	7/1/2013	6/30/2014
122	Fern	14	34.7	7/1/2013	6/30/2014
123	Fern	49	107.4	7/1/2013	6/30/2014
124	Fern	62	52.0	7/1/2013	6/30/2014
125	Fern	71	27.3	7/1/2013	6/30/2014
126	Fern	78	66.8	7/1/2013	6/30/2014
127	Fern	79	96.1	7/1/2013	6/30/2014
240	Nettle	13	145.1	7/1/2013	6/30/2014
241	Newsie	26	61.0	7/1/2013	6/30/2014
242	Newsie	26A	16.3	7/1/2013	6/30/2014
243	Newsie	29	49.2	7/1/2013	6/30/2014
244	Niland	108	68.2	7/1/2013	6/30/2014
245	Niland	112	61.5	7/1/2013	6/30/2014
246	North Date	61	206.6	7/1/2013	6/30/2014
247	North Date	77	32.4	8/1/2013	6/30/2014
248	North Date	79	61.8	8/1/2013	6/30/2014
249	Nutmeg	10A	151.2	7/1/2013	6/30/2014
250	Nutmeg	14	138.9	7/1/2013	6/30/2014
251	Nutmeg	17A	139.0	7/1/2013	6/30/2014
252	O	12	73.3	4/1/2013	6/30/2014
253	O	13 & 13A	72.1	7/1/2013	6/30/2014
254	Oak	9	149.4	7/1/2013	6/30/2014
255	Oak	23	145.3	7/1/2013	6/30/2014
368	Wisteria	6	60.2	7/1/2013	6/30/2014
369	Wisteria	7	74.7	7/1/2013	6/30/2014
370	Wisteria	8	78.0	7/1/2013	6/30/2014
371	Wisteria	35	69.5	7/1/2013	6/30/2014
372	Wisteria	35A	71.0	7/1/2013	6/30/2014
373	Wisteria	67	77.9	7/1/2013	6/30/2014
374	Wisteria	68C	73.9	7/1/2013	6/30/2014
375	Wisteria	68D	52.5	7/1/2013	6/30/2014
376	Wisteria	73	77.4	7/1/2013	6/30/2014
377	Wisteria	123	114.9	7/1/2013	6/30/2014
378	Wisteria	124	87.0	6/1/2013	6/30/2014
379	Woodbine	2	121.2	7/1/2013	6/30/2014
380	Woodbine	3	93.1	7/1/2013	6/30/2014
381	Woodbine	3	72.5	7/1/2013	6/30/2014
382	Wormwood	52	67.0	7/1/2013	6/30/2014
383	Wormwood	53	56.1	7/1/2013	6/30/2014

2013-2014 Following Program Total Acreage = 34,432.6  
 2013-2014 Following Program Provisional Water Yield at-Farm (AF) = 196,067.5  
 2013-2014 Following Program Provisional Water Yield at-River (AR) = 203,106.3\*  
 2013-2014 Following Program Contracts Expense = \$23,079,434

\* Provisional Only

2014 Calendar Year Following Program

Canal	Gate	FSA Acreage	Start Date	End Date
1 Acacia	102	39.5	01/01/14	12/31/14
2 Alamitos	63	36.8	01/01/14	12/31/14
3 Alamitos	64	37.9	01/01/14	12/31/14
4 Ash	67	69.9	01/01/14	12/31/14
5 Ash Lateral 5	106	33.6	01/01/14	12/31/14
**6 B	11	131.7	01/01/14	12/31/14
7 B	28	145.7	01/01/14	12/31/14
8 C West	41	31.7	01/01/14	12/31/14
9 C West	42	54.9	01/01/14	12/31/14
10 D	28	69.7	01/01/14	12/31/14
11 D	29	69.8	01/01/14	12/31/14
12 Dogwood	14	67.3	01/01/14	12/31/14
13 Dogwood	15	52.6	01/01/14	12/31/14
14 Dogwood	15	11.3	01/01/14	12/31/14
15 Dogwood	17	139.4	01/01/14	12/31/14
16 Dogwood	43A	42.8	01/01/14	12/31/14
17 Dogwood	43A	11.2	01/01/14	12/31/14
**18 E & F	33 & 24	142.6	01/01/14	12/31/14
19 East Highline	2	152.3	01/01/14	12/31/14
**20 East Highline	18	26.5	01/01/14	12/31/14
**21 East Highline	27A	96.0	01/01/14	12/31/14
22 East Highline SM	119/122	83.9	01/01/14	12/31/14
23 Elder	64	124.1	01/01/14	12/31/14
24 Elder	72	23.6	01/01/14	12/31/14
25 Elder	73	86.9	01/01/14	12/31/14
26 Elder	89	25.1	01/01/14	12/31/14
27 Eucalyptus	111	137.2	01/01/14	12/31/14
28 Evergreen	23	68.7	01/01/14	12/31/14
29 Evergreen	23A	132.3	01/01/14	12/31/14
30 Evergreen	24	198.5	01/01/14	12/31/14
31 F	18	148.1	01/01/14	12/31/14
**32 F & E	22 & 33	149.4	01/01/14	12/31/14
33 F	34	73.4	01/01/14	12/31/14
34 F	42	75.3	01/01/14	12/31/14
35 Fern	15	54.6	01/01/14	12/31/14
36 Fern	22	193.1	01/01/14	12/31/14
37 Fig	7	73.5	01/01/14	12/31/14
38 Fig	8	73.2	01/01/14	12/31/14
**39 G	24	134.9	01/01/14	12/31/14
**40 G	26	149.9	01/01/14	12/31/14
**41 H	36	103.5	01/01/14	12/31/14
**42 H	37	104.2	01/01/14	12/31/14
**43 I	12	149.4	01/01/14	12/31/14
**44 L	16	71.4	01/01/14	12/31/14
45 Lavandar	5B	142.3	01/01/14	12/31/14
46 Lavandar	16	104.4	01/01/14	12/31/14

Canal	Gate	FSA Acreage	Start Date	End Date
**49 M	13	141.3	01/01/14	12/31/14
**50 M	23	151.0	01/01/14	12/31/14
51 M	30	155.3	01/01/14	12/31/14
52 Malva 1	1	112.3	01/01/14	12/31/14
53 Malva 2	1	35.2	01/01/14	12/31/14
**54 Marigold	10	136.3	01/01/14	12/31/14
**55 Marigold	19	69.7	01/01/14	12/31/14
**56 Marigold	20	84.8	01/01/14	12/31/14
**57 Marigold	21	84.0	01/01/14	12/31/14
**58 Marigold	21A	81.9	01/01/14	12/31/14
**59 Mayflower	20	69.8	01/01/14	12/31/14
**60 Mayflower	20A	70.3	01/01/14	12/31/14
61 Mesa 5	65	75.2	01/01/14	12/31/14
62 Mesa 5	69	40.7	01/01/14	12/31/14
63 Moorhead	183	31.7	01/01/14	12/31/14
64 Moss	3	80.8	01/01/14	12/31/14
**65 N	7	115.2	01/01/14	12/31/14
**66 N	8	72.3	01/01/14	12/31/14
**67 N	10	140.4	01/01/14	12/31/14
**68 N	12	72.9	01/01/14	12/31/14
**69 N	20	87.3	01/01/14	12/31/14
**70 Narcissus	6	73.2	01/01/14	12/31/14
**71 Narcissus	9	142.7	01/01/14	12/31/14
72 Nectarine A	36	136.6	01/01/14	12/31/14
**73 Nettle	6	70.8	01/01/14	12/31/14
**74 Nettle	7	72.8	01/01/14	12/31/14
**75 Niland 1	105	66.9	01/01/14	12/31/14
**76 Niland 1	106	141.2	01/01/14	12/31/14
**77 Niland 3	304	145.4	01/01/14	12/31/14
**78 Niland 4	410	142.9	01/01/14	12/31/14
**79 Niland Extension	55A	40.4	01/01/14	12/31/14
**80 Niland Extension	57	56.5	01/01/14	12/31/14
81 Niland Extension	57A	72.0	01/01/14	12/31/14
82 North Date	40A	64.2	01/01/14	12/31/14
83 North Date	82A	69.0	01/01/14	12/31/14
**84 Nutmeg	15	73.2	01/01/14	12/31/14
**85 Nutmeg	16A	69.0	01/01/14	12/31/14
**86 O	14	67.8	01/01/14	12/31/14
**87 O	16	101.4	01/01/14	12/31/14
88 Oak	5	62.0	01/01/14	12/31/14
89 Oakley	97	35.5	01/01/14	12/31/14
90 Orange	24	143.3	01/01/14	12/31/14
91 Orange	26	145.4	01/01/14	12/31/14
92 Orient	1	69.0	01/01/14	12/31/14
93 Orient	4	149.9	01/01/14	12/31/14
94 Oxalis	0	233.9	01/01/14	12/31/14

Canal	Gate	FSA Acreage	Start Date	End Date
97 Pear	58	35.5	01/01/14	12/31/14
98 Pine	27	143.4	01/01/14	12/31/14
99 Pine	28	72.3	01/01/14	12/31/14
**100 Q	4	73.4	01/01/14	12/31/14
**101 Q	4	74.7	01/01/14	12/31/14
**102 Q	6	70.0	01/01/14	12/31/14
**103 Q	6	73.1	01/01/14	12/31/14
**104 Q	15	87.2	01/01/14	12/31/14
**105 R	4	151.3	01/01/14	12/31/14
**106 R	12	31.2	01/01/14	12/31/14
**107 R	13/14	187.2	01/01/14	12/31/14
**108 R Sidemain	2	85.7	01/01/14	12/31/14
**109 R Sidemain	3	149.1	01/01/14	12/31/14
110 Redwood	29	82.8	01/01/14	12/31/14
111 Redwood	99	78.0	01/01/14	12/31/14
112 Rockwood	173A	62.3	01/01/14	12/31/14
113 South Date	11	68.3	01/01/14	12/31/14
114 Spruce 5	87	49.6	01/01/14	12/31/14
**115 Standard	6	77.6	01/01/14	12/31/14
116 Standard	12	75.0	01/01/14	12/31/14
117 Thistle 5	22	35.9	01/01/14	12/31/14
118 Thistle 5	23	36.5	01/01/14	12/31/14
119 Thorn	36	49.2	01/01/14	12/31/14
120 Thorn 1	120A	49.2	01/01/14	12/31/14
**121 Trifolium 6	105	69.9	01/01/14	12/31/14
122 Trifolium 6	107	70.9	01/01/14	12/31/14
123 Trifolium 6	108	76.5	01/01/14	12/31/14
124 Trifolium 9	179A	22.8	01/01/14	12/31/14
125 Trifolium 15	289	150.7	01/01/14	12/31/14
**126 U	2	167.7	01/01/14	12/31/14
127 Westside Main	60	23.2	01/01/14	12/31/14
**128 Woodbine	41	79.9	01/01/14	12/31/14
**129 Woodbine	42	78.7	01/01/14	12/31/14
**130 Woodbine	56	71.0	01/01/14	12/31/14
**131 Woodbine 2	5F	124.7	01/01/14	12/31/14
**132 Woodbine 2	5H	96.6	01/01/14	12/31/14
**133 Wormwood	11	80.7	01/01/14	12/31/14
**134 Wormwood	18	93.0	01/01/14	12/31/14
**135 Wormwood	20	83.2	01/01/14	12/31/14
**136 Wormwood	37	73.3	01/01/14	12/31/14
**137 Wormwood	39	75.0	01/01/14	12/31/14
**138 Y	4	145.1	01/01/14	12/31/14
**139 Z	1	68.4	01/01/14	12/31/14
**140 Z	2	65.9	01/01/14	12/31/14
**141 Z	3	66.9	01/01/14	12/31/14
**142 Z	4	68.9	01/01/14	12/31/14

47	Lilac	5	302.3	01/01/14	12/31/14	95	P	8	73.7	01/01/14	12/31/14	**143	Z	7	206.8	01/01/14	12/31/14
48	Lotus	17	65.9	01/01/14	12/31/14	96	Palmetto	4A	73.9	01/01/14	12/31/14						

**2014 CY Following Program Total Acreage = 12,970.8**  
**2014 CY Following Program Provisional Water Yield at-Farm (AF) = 66,727.9**  
**2014 CY Following Program Provisional Water Yield at-River (AR) = 69,381.5\***  
**2014 CY Following Program Contracts Expense = \$6,305,012**

\* Provisional Only  
 \*\* WFL Fallow Fields

## ATTACHMENT NO. 2

**Imperial Irrigation District****Main Canal Seepage Interception Project**

Quarterly Report of Volume Pumped - Q2 2014

PROVISIONAL DATA - SUBJECT TO CORRECTION

Volume pumped* (AF) as of 30 JUN 2014			
Site Code	Q1 2014	Q2 2014	YTD 2014
DIX2	11	8	18
DIX4	23	40	62
EHL14	193	239	432
HOL1	1,533	1,786	3,320
HOL2C	349	339	688
HOL6	558	623	1,182
HOL7	756	816	1,572
HOL	671	783	1,454
MAG	66	78	144
MES	23	21	44
ML1	137	146	283
ML2	30	23	53
MOS	126	163	289
MUL	176	220	396
OR1	247	335	582
OR	385	534	919
PAM	457	597	1,053
TOW	138	131	269
VER2	228	244	472
VER4	385	510	895
VER	457	400	857
WAR2	19	18	37
<b>Total:</b>	<b>6,968</b>	<b>8,052</b>	<b>15,020</b>

\*All volumes are reported as measured at site and do not include conveyance losses.

Attachment F

**IID 2014 Fall Verification Report**

# Imperial Irrigation District Extraordinary Conservation Verification Report

October 2014

In accordance with its approved plan for the creation of Extraordinary Conservation Intentionally Created Surplus (ICS), and its approved Revised Inadvertent Overrun and Payback Policy (IOPP) payback plan, the Imperial Irrigation District (IID) is implementing extraordinary conservation measures during calendar year 2014 to create Extraordinary Conservation ICS and to conserve water to meet its 2014 IOPP payback obligation. To create Extraordinary Conservation ICS, IID is implementing an On-Farm Fallowing Program (Fallowing Program) and a Main Canal Seepage Interception System (MCSIS). To meet its 2014 IOPP payback obligation, IID is implementing its Fallowing Program, MCSIS and On-Farm Efficiency Conservation Program (OFECP).

The Bureau of Reclamation approved IID's 2014 ICS Plan of Creation and IID's 2014 IOPP Payback Plan by letter dated September 21, 2013. As noted in each of these plans, verification that the conservation measures were implemented is accomplished in part through semi-annual field verification inspections conducted by Reclamation on randomly selected fields accounting for five percent of the total acreage enrolled in the Fallowing Program, on five percent of the project pumps that were operated as part of the MCSIS, and on a representative sample of the measures being implemented under the OFECP. The first of these inspections for calendar year 2014 was conducted on March 26-27, 2014. The second of these inspections was conducted on October 27-29, 2014, the observations and findings from which are documented in this verification report.

## **A: On-Farm Fallowing Program Verification**

At the time of Reclamation's October 2014 inspection, IID was implementing two different Fallowing Programs<sup>1</sup>:

- 1) Calendar Year 2014 Fallowing Program, running from January 1, 2014 through December 31, 2014 with 12,970.8 acres enrolled.
- 2) 2014-2015 Fallowing Program, running from July 1, 2014 through June 30, 2015 with 32,915.1 acres enrolled.

Five percent of the total 45,885.9 acres participating in IID's Fallowing Programs were checked during the site verification inspection. Twenty-nine fields totaling approximately 2,391 acres were inspected (see Attachment #1).

Observation: Green growth was observed on some fields, which was attributed to localized rainfall that occurred late-summer/early-fall (see Attachment #2). The impacts of this rainfall were more pronounced in the southern portion of the district on which approximately one-half inch of rain fell during mid-late September providing sufficient water supply to keep volunteer

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<sup>1</sup> For additional information on IID's Fallowing Programs see <http://www.iid.com/index.aspx?page=190>.

plants and/or prior crops in fields enrolled in the fallowing programs visibly green. In such cases, IID provided records demonstrating that no water had been delivered to the field.

IID staff indicated that Fallowing Program participants, in accordance with environmental mitigation requirements for potential air quality impacts, were required to implement dust control Best Management Practices (BMPs) when necessary. These BMPs include (but are not limited to) leaving vegetation residue on the field or seeding a cover crop prior to the fallowing start date.

Attachment 1 provides tabular information summarizing all fields participating in the 2014 Calendar Year and 2014-2015 Fallowing Programs. Those entries highlighted in yellow are the fields inspected during the October 2014 verification inspections; additional information about each inspected field is provided below.

1.



**Fallowing Program Record No. 8.**

Reclamation Field No. 11531

Acres: IID = 61.2

Canal: **Acacia**. Gate No. **60**.

Fallowing Program: 2014-2015

Start Date: 07/01/2014

End Date: 06/30/2015

**Comments:**

Photo No. 1: Lock on gate.

Photo No. 2: Fallowed field with some volunteer alfalfa.

2.



3.



**Following Program Record No. 87.**  
 Reclamation Field No. 12505  
 Acres: IID = 148.1  
 Canal: **EHL Sidemain.** Gate No. **137.**

Following Program: 2014-2015  
 Start Date: 07/01/2014  
 End Date: 06/30/2015

Comments:  
 Records review confirmed no water deliveries were made to the field after program start date.

4.



Photo No. 3: Lock on gate.  
 Photo No. 4: Fallowed field with sudan grass regrowth – green due to localized rainfall.  
 Photo No. 5: Fallowed field with sudan grass regrowth – green due to localized rainfall.

5.



6.



**Following Program Record No. 2.**  
 Reclamation Field No. 12461  
 Acres: IID = 36.8  
 Canal: **Alamitos.** Gate No. **63.**

Following Program: Calendar Year 2014  
 Start Date: 01/01/2014  
 End Date: 12/31/2014

Comments:  
 Photo No. 6: Pin lock on gate.

7.



**Fallowing Program Record No. 2. –  
CONTINUED**

Photo No. 7: Fallowed field with senescent alfalfa.

8.



**Fallowing Program Record No. 18.**

Reclamation Field No. 13193

Acres: IID = 144.9

Canal: **Alamitos**. Gate No. **33**.

Fallowing Program: 2014-2015

Start Date: 07/01/2014

End Date: 06/30/2015

Comments:

Photo No. 8: Lock on gate.

Photo No. 9: Fallowed field with senescent alfalfa regrowth.

9.



10.



**Fallowing Program Record No. 24.**

Reclamation Field No. 13225

Acres: IID = 36.5

Canal: **Alder**. Gate No. **3**.

Fallowing Program: 2014-2015

Start Date: 07/01/2014

End Date: 06/30/2015

Comments:

Photo No. 10: Lock on gate.

11.



**Following Program Record No. 24. —  
CONTINUED**

Photo No. 11: Fallowed field, bare soil.

12.



**Following Program Record No. 52.**

Reclamation Field No. 13528

Acres: IID = 90.0

Canal: **Birch Lateral 3.** Gate No. **33.**

Following Program: 2014-2015

Start Date: 07/01/2014

End Date: 06/30/2015

**Comments:**

Birch Lateral 3, Gate 33 serves two fields, (only one of which was participating in the following program) and was therefore not locked. The jack gate that delivers water to the field was partially covered by a piece of plastic, and the ditch has dirt and vegetation growth indicating no recent water deliveries were made. Additionally, the participating field did not show any signs of recent irrigation. Records review confirmed no water deliveries were made to the field after program start date.

13.



14.



Photo No. 12: No lock on gate; gate serves multiple fields.

Photo No. 13: Fallowed field, some weeds.

Photo No. 14: Dirt and vegetation growth in ditch.

15.

**Following Program Record No. 388.**

Reclamation Field No. 13579

Acres: IID = 70.7

Canal: **Woodbine Lateral 2.** Gate No. **5D.**

Following Program: 2014-2015

Start Date: 07/01/2014

End Date: 06/30/2015

**Comments:**

Records review confirmed no water deliveries were made to the field after program start date.

16.



Photo No. 15: Lock on gate.

Photo No. 16: West portion of the field had a dense stand of partially senescent weeds.

Photo No. 17: Fallowed field, bare soil.

17.



18.

**Following Program Record No. 75.**

Reclamation Field No. 12693

Acres: IID = 33.5

Canal: **Dogwood.** Gate No. **9.**

Following Program: 2014-2015

Start Date: 07/01/2014

End Date: 06/30/2015

**Comments:**

Photo No. 18: No lock on gate; gate serves multiple fields.

19.



**Fallowing Program Record No. 75. —  
CONTINUED**

Photo No. 19: Fallowed field with some weed growth, green due to localized rainfall.

Photo No. 20: Jack gate, without lock.

Photo No. 21: Delivery canal with dense vegetation.

Photo No. 22: Delivery canal with dense vegetation.

20.



Dogwood, Gate 9 serves multiple fields and therefore did not have a lock on it, nor did the jack gate through which water is delivered to the field. There was, however, a piece of plastic on the jack gate to prevent water from being delivered to the field, and dense vegetation growth in the ditch indicates no recent water deliveries. Records review confirmed no water deliveries were made to the field after program start date.

21.



22.



23.



**Following Program Record No. 65.**  
 Reclamation Field Nos. 12018 and 12075  
 Acres: IID = 124.5  
 Canal: **Dahlia**. Gate No. **25**.

Following Program: 2014-2015  
 Start Date: 07/01/2015  
 End Date: 06/30/2015

Comments:  
 Records review confirmed no water deliveries were made to the field after program start date.

24.



Photo No. 23: Lock on gate.  
 Photo No. 24: Fallowed field with sudan grass regrowth – green due to localized rainfall.

25.



**Following Program Record No. 83.**  
 Reclamation Field No. 11173  
 Acres: IID = 67.1  
 Canal: **Ebony**. Gate No. **5**.

Following Program: 2014-2015  
 Start Date: 07/01/2014  
 End Date: 06/30/2015

Comments:  
 Photo No. 25: Lock on gate.  
 Photo No. 26: Fallowed field with senescent bermuda grass.

26.



27.

**Following Program Record No. 370.**

Reclamation Field No. 14103

Acres: IID = 36.4

Canal: **Westside Main.** Gate No. **93.**

Following Program: 2014-2015

Start Date: 07/01/2014

End Date: 06/30/2015

## Comments:

Photo No. 27: No lock on gate; gate serves multiple fields.

Photo No. 28: Fallowed field, disked.

28.



Westside Main, Gate 93 serves multiple fields and therefore did not have a lock on it. The participating field, however, did not show any signs of recent irrigation. Records review confirmed no water deliveries were made to the field after program start date.

29.

**Following Program Record Nos. 365 & 366.**

Reclamation Field Nos. 7443, 7446, 7472

Acres: IID = 142.8

Canal: **Vail Lateral 4A.** Gate No. **455.**

Following Program: 2014-2015

Start Date: 07/01/2014

End Date: 06/30/2015

## Comments:

Photo No. 29: Lock on gate.

Photo No. 30: Fallowed field with sudan grass regrowth – green due to localized rainfall.

30.



31.



**Fallowing Program Record Nos. 365 & 366 – CONTINUED.**

Photo No. 31: Fallowed field, fallow and furrowed.

32.



**Fallowing Program Record No. 158.**

Reclamation Field No. 7254

Acres: IID = 146.0

Canal: **J**. Gate No. **32**.

Fallowing Program: 2014-2015

Start Date: 07/01/2014

End Date: 06/30/2015

Comments:

Photo No. 32: Lock on gate.

33.



Photo No. 33: Fallowed field with senescent bermuda stubble.

34.



**Fallowing Program Record No. 290.**

Reclamation Field Nos. 7083, 7088

Acres: IID = 68.4

Canal: **R**. Gate No. **9**.

Fallowing Program: 2014-2015

Start Date: 07/01/2014

End Date: 06/30/2015

Comments:

Photo No. 34: Lock on gate.

35.



**Following Program Record No. 290. –  
CONTINUED**

Photo No. 35: Fallowed field, disked.

36.



**Following Program Record No. 309**

Reclamation Field No. 13681.

Acres: IID = 34.5

Canal: S. Gate No. 6.

Following Program: 2014-2015

Start Date: 07/01/2014

End Date: 06/30/2015

**Comments:**

Photo No. 36: No lock on gate; gate serves multiple fields.

37.



Photo No. 37: Dirt tap in place.

Photo No. 38: Fallowed field, bare soil.

38.



39.

**Following Program Record No. 87.**

Reclamation Field No. 13690

Acres: IID = 101.4

Canal: **O**. Gate No. **16**.

Following Program: Calendar Year 2014

Start Date: 01/01/2014

End Date: 12/31/2014

## Comments:

Photo No. 39: Lock on gate.

Photo No. 40: Followed with senescent wheat stubble.

40.



41.

**Following Program Record No. 67.**

Reclamation Field Nos. 7147, 7149, 7150

Acres: IID = 140.4

Canal: **N**. Gate No. **10**.

Following Program: Calendar Year 2014

Start Date: 01/01/2014

End Date: 12/31/2014

## Comments:

Photo No. 41: Lock on gate.

Photo No. 42: Followed with senescent bermuda grass.

42.



43.

**Fallowing Program Record No. 32.**

Reclamation Field No. 7611

Acres: IID = 149.4

Canal: **F&E**. Gate Nos. **22 & 30\***.

Fallowing Program: Calendar Year 2014

Start Date: 01/01/2014

End Date: 12/31/2014

## Comments:

Photo No. 43: (F-22) Lock on gate.

Photo No. 44: Fallowed field with senescent bermuda grass.

Photo No. 45: (E-30) Fallowed field with senescent bermuda grass.

\*Incorrectly identified as Gate E33 in  
Calendar Year 2014 Fallowing Program  
Summary.

44.



45.



46.

**Fallowing Program Record No. 8.**

Reclamation Field No. 7800

Acres: IID = 31.7

Canal: **C West**. Gate No. **41**.

Fallowing Program: Calendar Year 2014

Start Date: 01/01/2014

End Date: 12/31/2014

## Comments:

Photo No. 46: Lock on gate.

47.



**Fallowing Program Record No. 8 - CONTINUED.**

Photo No. 47: Fallowed field with partially green bermuda grass.

Records review confirmed no water deliveries were made to the field after program start date.

48.



**Fallowing Program Record No. 85.**

Reclamation Field No. 7970

Acres: IID = 69.0

Canal: **Nutmeg**. Gate No. **16A**.

Fallowing Program: Calendar Year 2014

Start Date: 01/01/2014

End Date: 12/31/2014

**Comments:**

Records review confirmed no water deliveries were made to the field after program start date.

49.



Photo No. 48: Lock on gate.

Photo No. 49: Fallowed field with partially green bermuda grass.

50.



**Fallowing Program Record No. 231.**

Reclamation Field No. 7957

Acres: IID = 151.7

Canal: **Nutmeg**. Gate No. **10A**.

Fallowing Program: 2014-2015

Start Date: 07/01/2014

End Date: 06/30/2015

**Comments:**

Photo No. 50: Lock on gate.

51.



**Fallowing Program Record No. 231. –  
CONTINUED.**

Photo No. 51: Fallowed field with senescent wheat stubble.

52.



**Fallowing Program Record No. 73.**

Reclamation Field No. 8035

Acres: IID = 70.8

Canal: **Nettle**. Gate No. **6**.

Fallowing Program: Calendar Year 2014

Start Date: 01/01/2014

End Date: 12/31/2014

**Comments:**

Nettle, Gate 6 serves multiple fields and therefore did not have a lock on it, nor did the jack gate through which water is delivered to the field. The participating field, however, did not show any signs of recent irrigation. Records review confirmed no water deliveries were made to the field after program start date.

53.



Photo No. 52: No lock on gate; gate serves multiple fields.

Photo No. 53: Fallowed field.

54.



**Fallowing Program Record No. 218.**

Reclamation Field No. 8194

Acres: IID = 74.5

Canal: **Narcissus**. Gate No. **1**.

Fallowing Program: 2014-2015

Start Date: 07/01/2014

End Date: 06/30/2015

**Comments:**

Photo No. 54: Lock on gate.

55.



**Fallowing Program Record No. 218. –  
CONTINUED.**

Photo No. 55: Fallowed field with sudan grass regrowth – green due to localized rainfall.

56.



**Fallowing Program Record No. 241**

Reclamation Field No. 9144

Acres: IID = 144.6

Canal: **Oak**. Gate No. 24.

Fallowing Program: 2014-2015

Start Date: 07/01/2014

End Date: 06/30/2015

**Comments:**

Photo No. 56: Lock on gate.

57.



Photo No. 57: Fallowed field with senescent sudan grass regrowth, pastured by sheep.

58.



**Fallowing Program Record No. 207**

Reclamation Field No. 9131

Acres: IID = 69.9

Canal: **Moss**. Gate No. 2.

Fallowing Program: 2014-2015

Start Date: 07/01/2014

End Date: 06/30/2015

**Comments:**

Photo No. 58: Lock on gate.

59.



**Following Program Record No. 207 –  
CONTINUED.**

Photo No. 59: Fallowed field with partially green bermuda grass.

Records review confirmed no water deliveries were made to the field after program start date.

60.



**Following Program Record No. 263.**

Reclamation Field No. 9617

Acres: IID = 74.0

Canal: **Orange**. Gate No. **3A**.

Following Program: 2014-2015

Start Date: 07/01/2014

End Date: 06/30/2015

**Comments:**

Records review confirmed no water deliveries were made to the field after program start date.

61.



Photo No. 60: Lock on gate.

Photo No. 61: Fallowed field with partially green alfalfa regrowth.

62.

**Following Program Record No. 99.**

Reclamation Field No. 15188

Acres: IID = 72.3

Canal: **Pine**. Gate No. 28.

Following Program: Calendar Year 2014

Start Date: 01/01/2014

End Date: 12/31/2014

## Comments:

Canal serving this field was removed;  
replacing with new concrete-lined canal.

63.



Photo No. 62: No lock on gate.

Photo No. 63: Fallowed field, bare soil.

## B: Main Canal Seepage Interception System Verification

IID's MCSIS project consists of 22 pump stations and appurtenant structures collectively providing a total recovery capacity of approximately 40,000 acre-feet annually. For each of the systems, intercepted seepage water pumped to the main canal is continuously metered to estimate the conserved water yield. Consumptive use reduction accounting occurs at IID's Imperial Dam diversion point (Station 60) to account for total losses from each pump system to Imperial Dam.

IID estimates the MCSIS will pump approximately 30,000 to 35,000 acre-feet of seepage water in 2014. Reclamation randomly selected two of the 22 MCSIS pump stations for inspection during the October 2014 verification inspection: the Dixie 2 & Dixie 4 pump stations. Provisional data indicate that, for the period January 1, 2014 through September 30, 2014, 201 acre-feet of water were pumped by the two inspected seepage interception system pumps (e.g., Dixie 2 and Dixie 4, designated in Attachment 2 as "DIX2" and "DIX4"); and, collectively, 23,633 acre-feet of water were pumped by the entire MCSIS (*see* Attachment #3).

1.



### IID MCSIS Location: Dixie 2 Pump Station

Average Operating Pump Rate during October 2014: 1.47 cfs.

Total volume pumped January 1- September 30, 2014: 52 acre-feet.

Photo No. 1. Seepage intercept pump.

Photo No. 2. Pump Station Instrumentation within the Electrical and Controller Panel.

2.



3.



Photo No. 3: Close-up photo of the readout on the sonic flowmeter. Although the pump was operating during the time of inspection, the flowmeter had malfunctioned and was not recording. QC procedures were used to estimate the flow rate during this time.

Photo No. 4: Outlet pipe.

4.



5.



**IID MCSIS Location: Dixie 4 Pump Station**

Average Operating Pump Rate during October 2014: 1.59 cfs.

Total volume pumped January 1- September 30, 2014: 149 acre-feet.

Photo No. 5: Seepage intercept pump. Not operating during time of inspection.

Photo No. 6. Pump Station Instrumentation within the Electrical and Controller Panel.

6.



7.



**IID MCSIS Location: Dixie 4 Pump Station - CONTINUED**

Photo No. 7. Close-up photo of the readout on the sonic flowmeter showing the instantaneous flowrate to be 0.00 cfs when this photo was taken.

Photo No. 8. Outlet pipe.

8.



## C. On-Farm Efficiency Conservation Program Verification

IID is implementing its OFECP to achieve efficiency conservation goals. Water conserved through this program may be used to meet IID's water transfer obligations or to fulfill IOPP payback obligations. In 2014, the Program's goal is to conserve a minimum of 40,000 acre-feet by implementing water use efficiency improvement projects on farms within the district.<sup>2</sup>

For the Fall 2014 verification inspection, Reclamation inspected 18 fields, totaling approximately 1,663 acres. The conservation measures inspected included: ditch lining, land leveling, tailwater recovery systems (cascading and permanent), solid set sprinkler and drip irrigation systems, irrigation scheduling and event management, slope management and contouring, and center pivot irrigation. Inspection findings are reported below.

Observation: When it comes to on-farm efficiency conservation, many of the measures employed are implemented during a discreet time period, e.g. laser leveling of a field is a one-time event that occurs prior to planting. In some cases during the inspection, it was not possible to visually "observe" the measure being implemented; e.g. a field that had been laser leveled wouldn't necessarily reveal the conservation measure had been implemented unless it was actively being leveled at the time of inspection, or a field upon which the conservation measure is irrigation scheduling/event management may not have any visible signs the measure is actively being employed. Under IID's OFECP, IID representatives inspect and track deliveries to enrolled fields to ensure conservation goals are met. Upon completion of each crop season, IID computes a verification baseline using actual season lengths and weather conditions and pays participants for verified conserved water measured as a reduction in delivered water compared to the verification baseline.

1.



### **Reclamation Field Nos. 11948 & 11958**

Acres: 34

Canal: **Eucalyptus**. Gate No. **26**.

Conservation Measure: Irrigation Scheduling and Event Management.

Comments:

Photo No. 1: Alfalfa in good condition.

<sup>2</sup> For additional information on IID's On-Farm Efficiency Conservation Program see <http://www.iid.com/index.aspx?page=600>.

2.



**Reclamation Field Nos. 13201, 13202, 13203, 13204 & 13205**

Acres: 423.8

Canal: **Westside Main** Gate: **2**.

Conservation Measure: Subsurface Drip Irrigation.

**Comments:**

Producer converted multiple fields from flood to subsurface drip irrigation.

3.



Photo No. 2: Flush valve.

Photo No. 3: Drip line. Drip line used to irrigate fields is 10" below land surface.

Photo No. 4: Inside pump house; pre-irrigation filters.

Photo No. 5: One of the fields being leveled for wheat planting; field will initially be flood irrigated and converted to drip once crop has been established.

4.



5.



6.

**Reclamation Field No. 12254**

Acres: 232

Canal: **Ash 5**. Gate No. **109**.

Conservation Measure: Land leveling.

## Comments:

Photo No. 6: Producer is growing sugar beets and alfalfa on laser-leveled field; conservation results from reduced tailwater.

7.

**Reclamation Field Nos. 9056 & 9057**

Acres: 122.6

Canal: **Magnolia**. Gate No. **A**.

Conservation Measure: Tailwater Recovery System, Cascading.

## Comments:

Producer irrigating two alfalfa fields using a cascading tailwater recovery system.

Photo No. 7: Tailwater collection box; field in view is the field irrigated with collected tailwater.

8.

**Reclamation Field No. 8749**

Acres: 72.5

Canal: **Myrtle**. Gate No. **3**.

Conservation Measure: Ditch Lining.

## Comments:

Photo No. 8: Producer lined 0.5 mile of irrigation ditch.

9.

**Reclamation Field No. 7916**

Acres: 32.9

Canal: **East Highline**. Gate No. **3A**.

Conservation Measure: Field reconfiguration.

## Comments:

Photo No. 9: Producer terraced the field and installed tailwater collection boxes at the downslope end. Tailwater collected from one field is routed to the adjacent field.

10.

**Reclamation Field Nos. 7093 & 15196**

Acres: 139.9

Canal: **Q**. Gate No. **10**.

Conservation Measure: Minor management and physical improvements.

## Comments:

Producer reconfigured the fields to allow for more efficient irrigation. By bedding the date tree rows, putting narrow water ditches on either side of the trees and installing *tablitas* (boards serving as gates in front of short sections of 3" PVC pipe seen in photo down-channel of the tree) in-between every 6<sup>th</sup> tree it allows the producer to control the flow of water due to the slope on this field (slope-control measure). This practice should realize considerable water savings compared to border-dike flood irrigation. At the time of inspection, the *tablitas* had been removed, so it was not clear if the producer was still implementing this measure.

11.



Photo No. 10: Date fields with bedded rows.

Photo No. 11: Close-up of 3" PVD pipe.

12.

**Reclamation Field No. 13819**

Acres: 52.3

Canal: **Trifolium 4**. Gate No. **69**.

Conservation Measure: Drip Irrigation.

## Comments:

Photo No. 12: Producer will be installing drip for irrigating sugar cane. At the time of inspection, the field was being leveled in preparation for planting. Drip system was not yet installed.



**Reclamation Field Nos. 8418 & 8259**

Acres: 110

Canal: **Westside Main**. Gate No. **99**.

Conservation Measure: Solid Set Sprinkler System.

Comments:

Photo No. 13: Solid set sprinkler irrigation of emergent carrots.



**Reclamation Field Nos. 8007 & 14941**

Acres: 72.4

Canal: **Trifolium Extension (TX)**. Gate: **35**.

Note: Field, formerly served by TX 35, is now served by Barth Gate 4.

Conservation Measure: Center Pivot Irrigation, with Reservoir and Subsurface Drip Irrigation.

Comments: Gate serves multiple fields, some of which were on subsurface drip irrigation.

Photo No. 14: Center pivot on alfalfa.

Photo No. 15: Drip irrigation filters.



**Reclamation Field Nos. 7455, 7457, 7464 & 7517**

Acres: 147.1

Canal: **Trifolium Extension**. Gate No. **105**

Conservation Measure: Tailwater Recovery System, Permanent

Comments:

This system was originally installed under the 1988 IID/MWD Conserved Water Agreement, but owner has enrolled it in the OFECP.

Photo No. 16: Multiple fields drain into outlet reservoir, from which water is then pumped to head ditch of adjacent fields.

17.



**Reclamation Field Nos. 7455, 7457, 7464 & 7517 – CONTINUED**

Photo No. 17: Outlet into head ditch of adjacent fields.

Based on the observations made and the information collected during the field verification inspection, the implementation of the extraordinary conservation measures noted above is:

Confirmed     Unconfirmed

Nicole Overett  
Inspector

12-9-14  
Date

Paul Martin  
Group Manager

12-9-14  
Date

## 2014 Calendar Year Following Program

	Canal	Gate	FSA Acreage	Start Date	End Date
1	Acacia	102	39.5	01/01/14	12/31/14
2	Alamitos	63	36.8	01/01/14	12/31/14
3	Alamitos	64	37.9	01/01/14	12/31/14
4	Ash	67	69.9	01/01/14	12/31/14
5	Ash Lateral 5	106	33.6	01/01/14	12/31/14
**6	B	11	131.7	01/01/14	12/31/14
7	B	28	145.7	01/01/14	12/31/14
8	C West	41	31.7	01/01/14	12/31/14
9	C West	42	54.9	01/01/14	12/31/14
10	D	28	69.7	01/01/14	12/31/14
11	D	29	69.8	01/01/14	12/31/14
12	Dogwood	14	67.3	01/01/14	12/31/14
13	Dogwood	15	52.6	01/01/14	12/31/14
14	Dogwood	15	11.3	01/01/14	12/31/14
15	Dogwood	17	139.4	01/01/14	12/31/14
16	Dogwood	43A	42.8	01/01/14	12/31/14
17	Dogwood	43A	11.2	01/01/14	12/31/14
**18	E & F	33 & 24	142.6	01/01/14	12/31/14
19	East Highline	2	152.3	01/01/14	12/31/14
**20	East Highline	18	26.5	01/01/14	12/31/14
**21	East Highline	27A	96.0	01/01/14	12/31/14
22	East Highline SM	119/122	83.9	01/01/14	12/31/14
23	Elder	64	124.1	01/01/14	12/31/14
24	Elder	72	23.6	01/01/14	12/31/14
25	Elder	73	86.9	01/01/14	12/31/14
26	Elder	89	25.1	01/01/14	12/31/14
27	Eucalyptus	111	137.2	01/01/14	12/31/14
28	Evergreen	23	68.7	01/01/14	12/31/14
29	Evergreen	23A	132.3	01/01/14	12/31/14
30	Evergreen	24	198.5	01/01/14	12/31/14
31	F	18	148.1	01/01/14	12/31/14
**32	F & E	22 & 33	149.4	01/01/14	12/31/14
33	F	34	73.4	01/01/14	12/31/14
34	F	42	75.3	01/01/14	12/31/14
35	Fern	15	54.6	01/01/14	12/31/14
36	Fern	22	193.1	01/01/14	12/31/14
37	Fig	7	73.5	01/01/14	12/31/14
38	Fig	8	73.2	01/01/14	12/31/14
**39	G	24	134.1	01/01/14	12/31/14
**40	G	26	149.9	01/01/14	12/31/14
**41	H	36	103.5	01/01/14	12/31/14
**42	H	37	104.2	01/01/14	12/31/14
**43	I	12	149.4	01/01/14	12/31/14
**44	L	16	71.4	01/01/14	12/31/14
45	Lavendar	5B	142.3	01/01/14	12/31/14
46	Lavendar	16	104.4	01/01/14	12/31/14

	Canal	Gate	FSA Acreage	Start Date	End Date
**49	M	13	141.3	01/01/14	12/31/14
**50	M	23	151.0	01/01/14	12/31/14
51	M	30	155.3	01/01/14	12/31/14
52	Malva 1	1	112.3	01/01/14	12/31/14
53	Malva 2	1	35.2	01/01/14	12/31/14
**54	Marigold	10	136.3	01/01/14	12/31/14
**55	Marigold	19	69.7	01/01/14	12/31/14
**56	Marigold	20	84.8	01/01/14	12/31/14
**57	Marigold	21	84.0	01/01/14	12/31/14
**58	Marigold	21A	81.9	01/01/14	12/31/14
**59	Mayflower	20	69.8	01/01/14	12/31/14
**60	Mayflower	20A	70.3	01/01/14	12/31/14
61	Mesa 5	65	75.2	01/01/14	12/31/14
62	Mesa 5	69	40.7	01/01/14	12/31/14
63	Moorhead	183	31.7	01/01/14	12/31/14
64	Moss	3	80.8	01/01/14	12/31/14
**65	N	7	115.2	01/01/14	12/31/14
**66	N	8	72.3	01/01/14	12/31/14
**67	N	10	140.4	01/01/14	12/31/14
**68	N	12	72.9	01/01/14	12/31/14
**69	N	20	87.3	01/01/14	12/31/14
**70	Narcissus	6	73.2	01/01/14	12/31/14
**71	Narcissus	9	142.7	01/01/14	12/31/14
72	Nectarine A	36	136.6	01/01/14	12/31/14
**73	Nettle	6	70.8	01/01/14	12/31/14
**74	Nettle	7	72.8	01/01/14	12/31/14
**75	Niland 1	105	66.9	01/01/14	12/31/14
**76	Niland 1	106	141.2	01/01/14	12/31/14
**77	Niland 3	304	145.4	01/01/14	12/31/14
**78	Niland 4	410	142.9	01/01/14	12/31/14
**79	Niland Extention	55A	40.4	01/01/14	12/31/14
**80	Niland Extention	57	56.5	01/01/14	12/31/14
81	Niland Extention	57A	72.0	01/01/14	12/31/14
82	North Date	40A	64.2	01/01/14	12/31/14
83	North Date	82A	69.0	01/01/14	12/31/14
**84	Nutmeg	15	73.2	01/01/14	12/31/14
**85	Nutmeg	16A	69.0	01/01/14	12/31/14
**86	O	14	67.8	01/01/14	12/31/14
**87	O	16	101.4	01/01/14	12/31/14
88	Oak	5	62.0	01/01/14	12/31/14
89	Oakley	97	35.5	01/01/14	12/31/14
90	Orange	24	143.3	01/01/14	12/31/14
91	Orange	26	145.4	01/01/14	12/31/14
92	Orient	1	69.0	01/01/14	12/31/14
93	Orient	4	149.9	01/01/14	12/31/14
94	Oxalis	0	233.9	01/01/14	12/31/14

	Canal	Gate	FSA Acreage	Start Date	End Date
97	Pear	58	35.5	01/01/14	12/31/14
98	Pine	27	143.4	01/01/14	12/31/14
99	Pine	28	72.3	01/01/14	12/31/14
**100	Q	4	73.4	01/01/14	12/31/14
**101	Q	4	74.7	01/01/14	12/31/14
**102	Q	6	70.0	01/01/14	12/31/14
**103	Q	6	73.1	01/01/14	12/31/14
**104	Q	15	87.2	01/01/14	12/31/14
**105	R	4	151.3	01/01/14	12/31/14
**106	R	12	31.2	01/01/14	12/31/14
**107	R	13/14	187.2	01/01/14	12/31/14
**108	R Sidemain	2	85.7	01/01/14	12/31/14
**109	R Sidemain	3	149.1	01/01/14	12/31/14
110	Redwood	29	82.8	01/01/14	12/31/14
111	Redwood	99	78.0	01/01/14	12/31/14
112	Rockwood	173A	62.3	01/01/14	12/31/14
113	South Date	11	68.3	01/01/14	12/31/14
114	Spruce 5	87	49.6	01/01/14	12/31/14
**115	Standard	6	77.6	01/01/14	12/31/14
116	Standard	12	75.0	01/01/14	12/31/14
117	Thistle 5	22	35.9	01/01/14	12/31/14
118	Thistle 5	23	36.5	01/01/14	12/31/14
119	Thorn	36	49.2	01/01/14	12/31/14
120	Thorn 1	120A	49.2	01/01/14	12/31/14
121	Trifolium 6	105	69.9	01/01/14	12/31/14
122	Trifolium 6	107	70.9	01/01/14	12/31/14
123	Trifolium 6	108	76.5	01/01/14	12/31/14
124	Trifolium 9	179A	22.8	01/01/14	12/31/14
125	Trifolium 15	289	150.7	01/01/14	12/31/14
**126	U	2	167.7	01/01/14	12/31/14
127	Westside Main	60	23.2	01/01/14	12/31/14
**128	Woodbine	41	79.9	01/01/14	12/31/14
**129	Woodbine	42	78.7	01/01/14	12/31/14
**130	Woodbine	56	71.0	01/01/14	12/31/14
**131	Woodbine 2	5F	124.7	01/01/14	12/31/14
**132	Woodbine 2	5H	96.6	01/01/14	12/31/14
**133	Wormwood	11	80.7	01/01/14	12/31/14
**134	Wormwood	18	93.0	01/01/14	12/31/14
**135	Wormwood	20	83.2	01/01/14	12/31/14
**136	Wormwood	37	73.3	01/01/14	12/31/14
**137	Wormwood	39	75.0	01/01/14	12/31/14
**138	Y	4	145.1	01/01/14	12/31/14
**139	Z	1	68.4	01/01/14	12/31/14
**140	Z	2	65.9	01/01/14	12/31/14
**141	Z	3	66.9	01/01/14	12/31/14
**142	Z	4	68.9	01/01/14	12/31/14

47	Lilac	5	302.3	01/01/14	12/31/14	95	P	8	73.7	01/01/14	12/31/14	**143	Z	7	206.8	01/01/14	12/31/14
48	Lotus	17	65.9	01/01/14	12/31/14	96	Palmetto	4A	73.9	01/01/14	12/31/14						

**2014 CY Fallowing Program Total Acreage = 12,970.8**  
**2014 CY Fallowing Program Provisional Water Yield at-Farm (AF) = 66,727.9**  
**2014 CY Fallowing Program Provisional Water Yield at-River (AF) = 69,381.5\***  
**2014 CY Fallowing Program Contracts Expense = \$6,305,012**

\* Provisional Only  
 \*\* WFL Fallow Fields

## 2014 Calendar Year Following Program

	Canal	Gate	FSA Acreage	Start Date	End Date
1	Acacia	102	39.5	01/01/14	12/31/14
2	Alamitos	63	36.8	01/01/14	12/31/14
3	Alamitos	64	37.9	01/01/14	12/31/14
4	Ash	67	69.9	01/01/14	12/31/14
5	Ash Lateral 5	106	33.6	01/01/14	12/31/14
**6	B	11	131.7	01/01/14	12/31/14
7	B	28	145.7	01/01/14	12/31/14
8	C West	41	31.7	01/01/14	12/31/14
9	C West	42	54.9	01/01/14	12/31/14
10	D	28	69.7	01/01/14	12/31/14
11	D	29	69.8	01/01/14	12/31/14
12	Dogwood	14	67.3	01/01/14	12/31/14
13	Dogwood	15	52.6	01/01/14	12/31/14
14	Dogwood	15	11.3	01/01/14	12/31/14
15	Dogwood	17	139.4	01/01/14	12/31/14
16	Dogwood	43A	42.8	01/01/14	12/31/14
17	Dogwood	43A	11.2	01/01/14	12/31/14
**18	E & F	33 & 24	142.6	01/01/14	12/31/14
19	East Highline	2	152.3	01/01/14	12/31/14
**20	East Highline	18	26.5	01/01/14	12/31/14
**21	East Highline	27A	96.0	01/01/14	12/31/14
22	East Highline SM	119/122	83.9	01/01/14	12/31/14
23	Elder	64	124.1	01/01/14	12/31/14
24	Elder	72	23.6	01/01/14	12/31/14
25	Elder	73	86.9	01/01/14	12/31/14
26	Elder	89	25.1	01/01/14	12/31/14
27	Eucalyptus	111	137.2	01/01/14	12/31/14
28	Evergreen	23	68.7	01/01/14	12/31/14
29	Evergreen	23A	132.3	01/01/14	12/31/14
30	Evergreen	24	198.5	01/01/14	12/31/14
31	F	18	148.1	01/01/14	12/31/14
**32	F & E	22 & 33	149.4	01/01/14	12/31/14
33	F	34	73.4	01/01/14	12/31/14
34	F	42	75.3	01/01/14	12/31/14
35	Fern	15	54.6	01/01/14	12/31/14
36	Fern	22	193.1	01/01/14	12/31/14
37	Fig	7	73.5	01/01/14	12/31/14
38	Fig	8	73.2	01/01/14	12/31/14
**39	G	24	134.1	01/01/14	12/31/14
**40	G	26	149.9	01/01/14	12/31/14
**41	H	36	103.5	01/01/14	12/31/14
**42	H	37	104.2	01/01/14	12/31/14
**43	I	12	149.4	01/01/14	12/31/14
**44	L	16	71.4	01/01/14	12/31/14
45	Lavendar	5B	142.3	01/01/14	12/31/14
46	Lavendar	16	104.4	01/01/14	12/31/14

	Canal	Gate	FSA Acreage	Start Date	End Date
**49	M	13	141.3	01/01/14	12/31/14
**50	M	23	151.0	01/01/14	12/31/14
51	M	30	155.3	01/01/14	12/31/14
52	Malva 1	1	112.3	01/01/14	12/31/14
53	Malva 2	1	35.2	01/01/14	12/31/14
**54	Marigold	10	136.3	01/01/14	12/31/14
**55	Marigold	19	69.7	01/01/14	12/31/14
**56	Marigold	20	84.8	01/01/14	12/31/14
**57	Marigold	21	84.0	01/01/14	12/31/14
**58	Marigold	21A	81.9	01/01/14	12/31/14
**59	Mayflower	20	69.8	01/01/14	12/31/14
**60	Mayflower	20A	70.3	01/01/14	12/31/14
61	Mesa 5	65	75.2	01/01/14	12/31/14
62	Mesa 5	69	40.7	01/01/14	12/31/14
63	Moorhead	183	31.7	01/01/14	12/31/14
64	Moss	3	80.8	01/01/14	12/31/14
**65	N	7	115.2	01/01/14	12/31/14
**66	N	8	72.3	01/01/14	12/31/14
**67	N	10	140.4	01/01/14	12/31/14
**68	N	12	72.9	01/01/14	12/31/14
**69	N	20	87.3	01/01/14	12/31/14
**70	Narcissus	6	73.2	01/01/14	12/31/14
**71	Narcissus	9	142.7	01/01/14	12/31/14
72	Nectarine A	36	136.6	01/01/14	12/31/14
**73	Nettle	6	70.8	01/01/14	12/31/14
**74	Nettle	7	72.8	01/01/14	12/31/14
**75	Niland 1	105	66.9	01/01/14	12/31/14
**76	Niland 1	106	141.2	01/01/14	12/31/14
**77	Niland 3	304	145.4	01/01/14	12/31/14
**78	Niland 4	410	142.9	01/01/14	12/31/14
**79	Niland Extention	55A	40.4	01/01/14	12/31/14
**80	Niland Extention	57	56.5	01/01/14	12/31/14
81	Niland Extention	57A	72.0	01/01/14	12/31/14
82	North Date	40A	64.2	01/01/14	12/31/14
83	North Date	82A	69.0	01/01/14	12/31/14
**84	Nutmeg	15	73.2	01/01/14	12/31/14
**85	Nutmeg	16A	69.0	01/01/14	12/31/14
**86	O	14	67.8	01/01/14	12/31/14
**87	O	16	101.4	01/01/14	12/31/14
88	Oak	5	62.0	01/01/14	12/31/14
89	Oakley	97	35.5	01/01/14	12/31/14
90	Orange	24	143.3	01/01/14	12/31/14
91	Orange	26	145.4	01/01/14	12/31/14
92	Orient	1	69.0	01/01/14	12/31/14
93	Orient	4	149.9	01/01/14	12/31/14
94	Oxalis	0	233.9	01/01/14	12/31/14

	Canal	Gate	FSA Acreage	Start Date	End Date
97	Pear	58	35.5	01/01/14	12/31/14
98	Pine	27	143.4	01/01/14	12/31/14
99	Pine	28	72.3	01/01/14	12/31/14
**100	Q	4	73.4	01/01/14	12/31/14
**101	Q	4	74.7	01/01/14	12/31/14
**102	Q	6	70.0	01/01/14	12/31/14
**103	Q	6	73.1	01/01/14	12/31/14
**104	Q	15	87.2	01/01/14	12/31/14
**105	R	4	151.3	01/01/14	12/31/14
**106	R	12	31.2	01/01/14	12/31/14
**107	R	13/14	187.2	01/01/14	12/31/14
**108	R Sidemain	2	85.7	01/01/14	12/31/14
**109	R Sidemain	3	149.1	01/01/14	12/31/14
110	Redwood	29	82.8	01/01/14	12/31/14
111	Redwood	99	78.0	01/01/14	12/31/14
112	Rockwood	173A	62.3	01/01/14	12/31/14
113	South Date	11	68.3	01/01/14	12/31/14
114	Spruce 5	87	49.6	01/01/14	12/31/14
**115	Standard	6	77.6	01/01/14	12/31/14
116	Standard	12	75.0	01/01/14	12/31/14
117	Thistle 5	22	35.9	01/01/14	12/31/14
118	Thistle 5	23	36.5	01/01/14	12/31/14
119	Thorn	36	49.2	01/01/14	12/31/14
120	Thorn 1	120A	49.2	01/01/14	12/31/14
121	Trifolium 6	105	69.9	01/01/14	12/31/14
122	Trifolium 6	107	70.9	01/01/14	12/31/14
123	Trifolium 6	108	76.5	01/01/14	12/31/14
124	Trifolium 9	179A	22.8	01/01/14	12/31/14
125	Trifolium 15	289	150.7	01/01/14	12/31/14
**126	U	2	167.7	01/01/14	12/31/14
127	Westside Main	60	23.2	01/01/14	12/31/14
**128	Woodbine	41	79.9	01/01/14	12/31/14
**129	Woodbine	42	78.7	01/01/14	12/31/14
**130	Woodbine	56	71.0	01/01/14	12/31/14
**131	Woodbine 2	5F	124.7	01/01/14	12/31/14
**132	Woodbine 2	5H	96.6	01/01/14	12/31/14
**133	Wormwood	11	80.7	01/01/14	12/31/14
**134	Wormwood	18	93.0	01/01/14	12/31/14
**135	Wormwood	20	83.2	01/01/14	12/31/14
**136	Wormwood	37	73.3	01/01/14	12/31/14
**137	Wormwood	39	75.0	01/01/14	12/31/14
**138	Y	4	145.1	01/01/14	12/31/14
**139	Z	1	68.4	01/01/14	12/31/14
**140	Z	2	65.9	01/01/14	12/31/14
**141	Z	3	66.9	01/01/14	12/31/14
**142	Z	4	68.9	01/01/14	12/31/14

47	Lilac	5	302.3	01/01/14	12/31/14	95	P	8	73.7	01/01/14	12/31/14	**143	Z	7	206.8	01/01/14	12/31/14
48	Lotus	17	65.9	01/01/14	12/31/14	96	Palmetto	4A	73.9	01/01/14	12/31/14						

**2014 CY Fallowing Program Total Acreage = 12,970.8**

**2014 CY Fallowing Program Provisional Water Yield at-Farm (AF) = 66,727.9**

**2014 CY Fallowing Program Provisional Water Yield at-River (AF) = 69,381.5\***

**2014 CY Fallowing Program Contracts Expense = \$6,305,012**

\* Provisional Only

\*\* WFL Fallow Fields

Imperial Irrigation District  
2014-2015 Following Program Participants

Canal	Gate	Start Date	End Date	Acreage	
1	Acacia	10	7/1/2014	6/30/2015	141.2
2	Acacia	26A	7/1/2014	6/30/2015	76.8
3	Acacia	34	7/1/2014	6/30/2015	152.2
4	Acacia	46A	7/1/2014	6/30/2015	34.83
5	Acacia	5	7/1/2014	6/30/2015	68.7
6	Acacia	52	7/1/2014	6/30/2015	69.9
7	Acacia	57	7/1/2014	6/30/2015	88.1
8	Acacia	60	7/1/2014	6/30/2015	61.2
9	Acacia	66	7/1/2014	6/30/2015	21.5
10	Acacia	68	7/1/2014	6/30/2015	42.1
11	Acacia	69	7/1/2014	6/30/2015	141.3
12	Acacia	6A	7/1/2014	6/30/2015	73.1
13	Acacia	74	7/1/2014	6/30/2015	101.2
14	Acacia	8	7/1/2014	6/30/2015	72.7
15	Acacia	99	7/1/2014	6/30/2015	112
16	Alamitos	28	7/1/2014	6/30/2015	72.5
17	Alamitos	30	7/1/2014	6/30/2015	73.8
18	Alamitos	33	7/1/2014	6/30/2015	144.9
19	Alamitos	35	7/1/2014	6/30/2015	149.1
20	Alder	17	7/1/2014	6/30/2015	36.3
21	Alder	22	7/1/2014	6/30/2015	109.9
22	Alder	26	7/1/2014	6/30/2015	63.3
23	Alder	27A	7/1/2014	6/30/2015	128.1
24	Alder	3	7/1/2014	6/30/2015	36.5
25	Alder	4A	7/1/2014	6/30/2015	36
26	Alder	5	7/1/2014	6/30/2015	35.94
27	Alder	56	7/1/2014	6/30/2015	16.8
28	Alder	5A	7/1/2014	6/30/2015	72.1
29	Alder	6	7/1/2014	6/30/2015	135.6
30	Alder	7	7/1/2014	6/30/2015	73.9
31	Alder	70	8/1/2014	6/30/2015	71.8
32	Alder	85	7/1/2014	6/30/2015	36.6
33	Alder	86	7/1/2014	6/30/2015	35.3
34	Alder	86A	7/1/2014	6/30/2015	33.3
35	Ash	37	7/1/2014	6/30/2015	98.8
36	Ash	75	7/1/2014	6/30/2015	34.7
37	Ash Lateral 15	122	7/1/2014	6/30/2015	25.4
38	Ash Lateral 15	128	7/1/2014	6/30/2015	72.6
39	Ash Lateral 15	155	7/1/2014	6/30/2015	31.2
40	Ash Lateral 30	204	7/1/2014	6/30/2015	84
41	B	1	7/1/2014	6/30/2015	137.5
42	B	32	7/1/2014	6/30/2015	69.1
43	B	37	7/1/2014	6/30/2015	7.1
44	B	38	7/1/2014	6/30/2015	13.8
45	B	40	7/1/2014	6/30/2015	65.5
46	B	40	7/1/2014	6/30/2015	34.4
47	B	44	7/1/2014	6/30/2015	53.9
48	B	44	7/1/2014	6/30/2015	34
49	B	44	7/1/2014	6/30/2015	24.2
50	B	7	7/1/2014	6/30/2015	141
51	Best	46	7/1/2014	6/30/2015	56.2
52	Birch Lateral 3	33	7/1/2014	6/30/2015	90
53	C	31	7/1/2014	6/30/2015	122.7
54	Central Main	12	7/1/2014	6/30/2015	133.6
55	Daffodil	12A	7/1/2014	6/30/2015	74.6
56	Dahlia	15	7/1/2014	6/30/2015	70.3
57	Dahlia	20A	7/1/2014	6/30/2015	65.7
58	Dahlia	21	7/1/2014	6/30/2015	57
59	Dahlia	22	7/1/2014	6/30/2015	65.5
60	Dahlia	22A	7/1/2014	6/30/2015	74.6
61	Dahlia	23	7/1/2014	6/30/2015	21.7

Imperial Irrigation District  
2014-2015 Following Program Participants

Canal	Gate	Start Date	End Date	Acreage	
62	Dahlia	23A	7/1/2014	6/30/2015	68.3
63	Dahlia	24	7/1/2014	6/30/2015	75
64	Dahlia	24A	7/1/2014	6/30/2015	68.5
65	Dahlia	25	7/1/2014	6/30/2015	124.5
66	Dogwood	13A	7/1/2014	6/30/2015	73.7
67	Dogwood	1A	7/1/2014	6/30/2015	109.6
68	Dogwood	34	7/1/2014	6/30/2015	65.7
69	Dogwood	34	7/1/2014	6/30/2015	71.4
70	Dogwood	56	7/1/2014	6/30/2015	71.7
71	Dogwood	69B	7/1/2014	6/30/2015	56.3
72	Dogwood	80	7/1/2014	6/30/2015	25.3
73	Dogwood	81A	7/1/2014	6/30/2015	37.1
74	Dogwood	82	7/1/2014	6/30/2015	34.7
75	Dogwood	9	7/1/2014	6/30/2015	35.5
76	Dogwood	F	7/1/2014	6/30/2015	144.2
77	D-West	38	7/1/2014	6/30/2015	37.9
78	E	22	7/1/2014	6/30/2015	35.8
79	E	48	7/1/2014	6/30/2015	69
80	East Highline	11	7/1/2014	6/30/2015	89.8
81	East Highline	47	7/1/2014	6/30/2015	36.3
82	Ebony	4	7/1/2014	6/30/2015	51.4
83	Ebony	5	7/1/2014	6/30/2015	67.1
84	EHL Lateral 13	295B	7/1/2014	6/30/2015	72.1
85	EHL Lateral 14	302	7/1/2014	6/30/2015	74.8
86	EHL Lateral 16	4	8/1/2014	6/30/2015	88
87	EHL Sideman	137	7/1/2014	6/30/2015	148.1
88	Elder	1	7/1/2014	6/30/2015	35.13
89	Elder	102	7/1/2014	6/30/2015	63
90	Elder	107	8/1/2014	6/30/2015	40.5
91	Elder	108	8/1/2014	6/30/2015	118.9
92	Elder	125	7/1/2014	6/30/2015	102.2
93	Elder	21	7/1/2014	6/30/2015	67.6
94	Elder	27C	7/1/2014	6/30/2015	44.6
95	Elder	46	7/1/2014	6/30/2015	105.9
96	Elder	49	7/1/2014	6/30/2015	55.8
97	Elder	49	7/1/2014	6/30/2015	53.7
98	Elder	63	7/1/2014	6/30/2015	126.6
99	Elder	69	7/1/2014	6/30/2015	73.9
100	Elder	71	7/1/2014	6/30/2015	125.9
101	Elder	81A	7/1/2014	6/30/2015	44
102	Elder	86	7/1/2014	6/30/2015	130.9
103	Elm	2	7/1/2014	6/30/2015	61.7
104	Elm	3	7/1/2014	6/30/2015	37.5
105	Elm	36	7/1/2014	6/30/2015	38.6
106	Elm	37	7/1/2014	6/30/2015	111.8
107	Elm	49	7/1/2014	6/30/2015	146.7
108	Elm	49A	7/1/2014	6/30/2015	36
109	Elm	54	7/1/2014	6/30/2015	77.6
110	Eucalyptus	110	7/1/2014	6/30/2015	141.8
111	Eucalyptus	112	7/1/2014	6/30/2015	141.5
112	Eucalyptus	122	7/1/2014	6/30/2015	136.9
113	Eucalyptus	124	7/1/2014	6/30/2015	74.1
114	Eucalyptus	125A	7/1/2014	6/30/2015	69.7
115	Eucalyptus	68	7/1/2014	6/30/2015	35.9
116	Eucalyptus	73	7/1/2014	6/30/2015	42.3
117	Eucalyptus	99	7/1/2014	6/30/2015	143.8
118	Evergreen	14	7/1/2014	6/30/2015	33.1
119	Evergreen	16	7/1/2014	6/30/2015	64.1
120	F	30	7/1/2014	6/30/2015	70.9
121	Fern	12	7/1/2014	6/30/2015	74.8
122	Fern	27	8/1/2014	6/30/2015	144

Imperial Irrigation District  
2014-2015 Following Program Participants

Canal	Gate	Start Date	End Date	Acres	
123	Fern	78	7/1/2014	6/30/2015	97.7
124	Fern	79	7/1/2014	6/30/2015	97.8
125	Fern	86	7/1/2014	6/30/2015	88.7
126	Fern	89	7/1/2014	6/30/2015	101.6
127	Fig	2	7/1/2014	6/30/2015	44.7
128	Fillaree	10	7/1/2014	6/30/2015	95.7
129	Fillaree	10A	7/1/2014	6/30/2015	128
130	Fillaree	10B	7/1/2014	6/30/2015	143.8
131	Fillaree	10C	7/1/2014	6/30/2015	18.9
132	Fillaree	10D	7/1/2014	6/30/2015	22.1
133	Fillaree	10F	7/1/2014	6/30/2015	18.3
134	Fillaree	10H	7/1/2014	6/30/2015	284.6
135	Fillaree	11	7/1/2014	6/30/2015	20.6
136	Fillaree	12	7/1/2014	6/30/2015	303.8
137	Fillaree	13	7/1/2014	6/30/2015	392.04
138	Fillaree	13A	7/1/2014	6/30/2015	129.9
139	Fillaree	17	7/1/2014	6/30/2015	129.2
140	Fillaree	25	7/1/2014	6/30/2015	153
141	Fillaree	28	7/1/2014	6/30/2015	150.6
142	Fillaree	3D	7/1/2014	6/30/2015	119.2
143	Fillaree	9A	7/1/2014	6/30/2015	93.1
144	Flax	10	7/1/2014	6/30/2015	69.9
145	Flax	8	7/1/2014	6/30/2015	28.8
146	Flax	8	7/1/2014	6/30/2015	69.9
147	Forgelmenot	11	7/1/2014	6/30/2015	75.7
148	Foxglove	27	7/1/2014	6/30/2015	123.4
149	Foxglove	43A	7/1/2014	6/30/2015	24.6
150	G	36	7/1/2014	6/30/2015	152.6
151	H	20	7/1/2014	6/30/2015	150
152	H	22	7/1/2014	6/30/2015	150
153	Holt	77	7/1/2014	6/30/2015	74.1
154	I	26	7/1/2014	6/30/2015	94.9
155	I	32	7/1/2014	6/30/2015	71.4
156	I	38	7/1/2014	6/30/2015	156.9
157	J	29	7/1/2014	6/30/2015	71.7
158	J	32	7/1/2014	6/30/2015	146
159	J	6	7/1/2014	6/30/2015	70.6
160	J	7	7/1/2014	6/30/2015	76.2
161	K	24	7/1/2014	6/30/2015	144.6
162	K	26	7/1/2014	6/30/2015	149.6
163	L	17	7/1/2014	6/30/2015	144
164	L	31	7/1/2014	6/30/2015	74
165	Lavender	10	7/1/2014	6/30/2015	73.6
166	Lavender	5B	7/1/2014	6/30/2015	72
167	Lavender	5B	7/1/2014	6/30/2015	72.5
168	Lavender Lateral 1	2	7/1/2014	6/30/2015	73.96
169	Lavender Lateral 1	4	7/1/2014	6/30/2015	54.06
170	Lilac	4	7/1/2014	6/30/2015	58.6
171	Lotus	5A	7/1/2014	6/30/2015	77.2
172	M	20	7/1/2014	6/30/2015	68.4
173	M	28	7/1/2014	6/30/2015	72.3
174	M	29	7/1/2014	6/30/2015	74.7
175	Magnolia	17	7/1/2014	6/30/2015	150.4
176	Magnolia	21	7/1/2014	6/30/2015	149.8
177	Malan	5B	7/1/2014	6/30/2015	24.2
178	Malva Lateral 1	3A	7/1/2014	6/30/2015	53.2
179	Malva Lateral 2	19	8/1/2014	6/30/2015	213.6
180	Malva Lateral 2	3	7/1/2014	6/30/2015	69.3
181	Malva Lateral 2	4	7/1/2014	6/30/2015	62.2
182	Maple	22	7/1/2014	6/30/2015	140.9
183	Maple	3	7/1/2014	6/30/2015	150.6

Imperial Irrigation District  
2014-2015 Following Program Participants

Canal	Gate	Start Date	End Date	Acres	
184	Maple	8	7/1/2014	6/30/2015	73
185	Maple	8	7/1/2014	6/30/2015	73
186	Marigold	6	7/1/2014	6/30/2015	70.4
187	Marigold	7	7/1/2014	6/30/2015	132.5
188	Marigold	8	7/1/2014	6/30/2015	65.1
189	Mayflower	10	7/1/2014	6/30/2015	150
190	Mayflower	13	7/1/2014	6/30/2015	76.3
191	Mayflower	14	7/1/2014	6/30/2015	76.1
192	Mayflower	18	7/15/2014	6/30/2015	145.1
193	Mayflower	4	7/1/2014	6/30/2015	35.8
194	Mayflower	6	7/1/2014	6/30/2015	34.5
195	Mayflower	7	7/1/2014	6/30/2015	146.1
196	Mayflower	9	7/1/2014	6/30/2015	75.8
197	Mesa Lateral 3	82	7/1/2014	6/30/2015	72.4
198	Mesquite	21	7/1/2014	6/30/2015	71.5
199	Moorhead	176	7/1/2014	6/30/2015	62.4
200	Moorhead	185	7/1/2014	6/30/2015	43
201	Moorhead	185	7/1/2014	6/30/2015	64
202	Moorhead	204	7/1/2014	6/30/2015	10
203	Moorhead	204	7/1/2014	6/30/2015	64.5
204	Moorhead	206B	7/1/2014	6/30/2015	143.2
205	Moorhead	207	7/1/2014	6/30/2015	40.8
206	Moss	10	7/1/2014	6/30/2015	143.9
207	Moss	2	7/1/2014	6/30/2015	69.9
208	Mulberry	1	7/1/2014	6/30/2015	74.12
209	Mulberry	2	7/1/2014	6/30/2015	13.1
210	Mulberry	5	7/1/2014	6/30/2015	143.1
211	Mulberry	9	8/1/2014	6/30/2015	105.1
212	Mulberry	9	8/1/2014	6/30/2015	80
213	Mullen	2	7/1/2014	6/30/2015	57.5
214	Myrtle	1	7/1/2014	6/30/2015	73.8
215	Myrtle	11	7/1/2014	6/30/2015	38.7
216	Myrtle	13	7/1/2014	6/30/2015	36.8
217	Myrtle	1A	7/1/2014	6/30/2015	15.7
218	Narcissus	1	7/1/2014	6/30/2015	74.5
219	Narcissus	3	7/1/2014	6/30/2015	146.9
220	Nectarine A	26	7/1/2014	6/30/2015	150
221	Nectarine A	29	7/1/2014	6/30/2015	107.4
222	Nettle	4	7/1/2014	6/30/2015	149.2
223	Newsid	26	7/1/2014	6/30/2015	15
224	Newsid	26	7/1/2014	6/30/2015	45.1
225	Niland Lateral 1	104	7/1/2014	6/30/2015	72
226	Niland Lateral 1	110	7/1/2014	6/30/2015	70.5
227	North Date	77	7/1/2014	6/30/2015	33.2
228	North Date	78	7/1/2014	6/30/2015	82.2
229	North Date	79	7/1/2014	6/30/2015	105.3
230	North Date	79	7/1/2014	6/30/2015	82.4
231	Nutmeg	10A	7/1/2014	6/30/2015	151.7
232	Nutmeg	17A	7/1/2014	6/30/2015	140.6
233	Nutmeg	9	8/1/2014	6/30/2015	142.3
234	O	12	7/1/2014	6/30/2015	20
235	O	13	7/1/2014	6/30/2015	35.7
236	O	13A	7/1/2014	6/30/2015	36.1
237	O	6	7/1/2014	6/30/2015	35.9
238	O	6	7/1/2014	6/30/2015	36.2
239	O	6	7/1/2014	6/30/2015	37.5
240	O	6	7/1/2014	6/30/2015	39.4
241	Oak	24	7/1/2014	6/30/2015	144.58
242	Oak	9	7/1/2014	6/30/2015	149.1
243	Oasis	28	7/1/2014	6/30/2015	70.5
244	Oasis	29	7/1/2014	6/30/2015	69.4

Imperial Irrigation District  
2014-2015 Fallowing Program Participants

	Canal	Gate	Start Date	End Date	Acreage
245	Oasis	29A	7/1/2014	6/30/2015	73.2
246	Oasis	30	7/1/2014	6/30/2015	142.4
247	Oat	26	7/1/2014	6/30/2015	149.1
248	Oat	27	7/1/2014	6/30/2015	112.2
249	Oat	28	7/1/2014	6/30/2015	90
250	Oat	29	7/1/2014	6/30/2015	144
251	Occident	2	7/1/2014	6/30/2015	69.5
252	Occident	2	7/1/2014	6/30/2015	77.3
253	Occident	20	7/1/2014	6/30/2015	73.7
254	Occident	20A	7/1/2014	6/30/2015	79.2
255	Occident	21	7/1/2014	6/30/2015	131.7
256	Ohmar	1	7/1/2014	6/30/2015	89.4
257	Ohmar	6	7/1/2014	6/30/2015	145
258	Oleander	3	7/1/2014	6/30/2015	85.9
259	Oleander	8	7/1/2014	6/30/2015	140.7
260	Oleander	9	7/1/2014	6/30/2015	135.8
261	Oleander Side Main	2	7/1/2014	6/30/2015	152
262	Orange	10	7/1/2014	6/30/2015	140.5
263	Orange	3A	7/1/2014	6/30/2015	74
264	Orient	1A	7/1/2014	6/30/2015	77.1
265	Orient	23	7/1/2014	6/30/2015	143.8
266	Orient	25	7/1/2014	6/30/2015	73.9
267	Orient	29A	7/1/2014	6/30/2015	32.9
268	Orita	1B	7/1/2014	6/30/2015	62.6
269	Osage	6	7/1/2014	6/30/2015	156.6
270	Osage	8	7/1/2014	6/30/2015	43
271	Osage	8	7/1/2014	6/30/2015	38.4
272	Palmetto	2	7/1/2014	6/30/2015	86.5
273	Peach	24	7/1/2014	6/30/2015	74.4
274	Peach	26	7/1/2014	6/30/2015	76.5
275	Peach	5	7/1/2014	6/30/2015	68.6
276	Pear	10	7/1/2014	6/30/2015	36
277	Pear	11	7/1/2014	6/30/2015	144.3
278	Pear	30C	7/1/2014	6/30/2015	75.1
279	Pear	31	7/1/2014	6/30/2015	68.1
280	Pear	34	7/1/2014	6/30/2015	37.2
281	Pear	42A	7/1/2014	6/30/2015	74.9
282	Pear	45	7/1/2014	6/30/2015	38.7
283	Pear	69A	7/1/2014	6/30/2015	39
284	Pear	74	7/1/2014	6/30/2015	70.3
285	Pear	9	7/1/2014	6/30/2015	111.5
286	Pine	25A	7/1/2014	6/30/2015	72.4
287	Pomelo	29	7/1/2014	6/30/2015	138.7
288	Pomelo	33	7/1/2014	6/30/2015	74.2
289	Pomelo	6	7/1/2014	6/30/2015	142.9
290	R	9	7/1/2014	6/30/2015	68.4
291	Redwood	15	7/1/2014	6/30/2015	151.7
292	Redwood	31	7/1/2014	6/30/2015	23.5
293	Redwood	36	7/1/2014	6/30/2015	171.1
294	Redwood	41	7/1/2014	6/30/2015	363.7
295	Redwood	96	7/1/2014	6/30/2015	167.1
296	Redwood	98	7/1/2014	6/30/2015	103.9
297	Rockwood	121	7/1/2014	6/30/2015	157.3
298	Rockwood	122	7/1/2014	6/30/2015	157.4
299	Rockwood	125A	7/1/2014	6/30/2015	82.2
300	Rockwood	131	7/1/2014	6/30/2015	71.8
301	Rockwood	160	7/1/2014	6/30/2015	123.6
302	Rockwood	171	7/1/2014	6/30/2015	66.8
303	Rose	15	7/1/2014	6/30/2015	113.7
304	Rose	53	7/1/2014	6/30/2015	48.1
305	Rose	75	7/1/2014	6/30/2015	74

Imperial Irrigation District  
2014-2015 Fallowing Program Participants

	Canal	Gate	Start Date	End Date	Acreage
306	Rose	82A	7/1/2014	6/30/2015	73.1
307	Rubber	7	7/1/2014	6/30/2015	161
308	Rubber	A	7/1/2014	6/30/2015	135.6
309	S	6	7/1/2014	6/30/2015	34.5
310	Sandal	186	7/1/2014	6/30/2015	35.2
311	South Alamo	114	7/1/2014	6/30/2015	34
312	South Alamo	114	7/1/2014	6/30/2015	40.1
313	South Alamo	26A	7/1/2014	6/30/2015	41.6
314	South Alamo	61	7/1/2014	6/30/2015	39.2
315	South Alamo	73	7/1/2014	6/30/2015	25
316	South Alamo	73	7/1/2014	6/30/2015	26.6
317	South Alamo	79	7/1/2014	6/30/2015	37.8
318	South Alamo	81	7/1/2014	6/30/2015	89.5
319	South Alamo	86	7/1/2014	6/30/2015	42.8
320	South Alamo	94	7/1/2014	6/30/2015	32.5
321	South Date	3	7/1/2014	6/30/2015	76.2
322	Spruce Lateral 4	94	7/1/2014	6/30/2015	145.6
323	Standard		7/1/2014	6/30/2015	56.8
324	T	4	7/1/2014	6/30/2015	30
325	Tamarack	202A	7/1/2014	6/30/2015	75.3
326	Thistle Lateral 4	29	7/1/2014	6/30/2015	36.1
327	Thistle Main	40	7/1/2014	6/30/2015	74.2
328	Thorn	26	7/1/2014	6/30/2015	36
329	Thorn	28	7/1/2014	6/30/2015	37.1
330	Thorn	38	7/1/2014	6/30/2015	45.4
331	Thorn	40	7/1/2014	6/30/2015	78.3
332	Thorn Lateral 1	121	7/1/2014	6/30/2015	50.6
333	Thorn Lateral 1	123A	7/1/2014	6/30/2015	26.6
334	Township	1	7/1/2014	6/30/2015	58.4
335	Township	21	7/1/2014	6/30/2015	143.5
336	Township	23	7/1/2014	6/30/2015	105.5
337	Township	24	7/1/2014	6/30/2015	100.6
338	Township	25	7/1/2014	6/30/2015	145
339	Trifolium Lateral 7	134	7/1/2014	6/30/2015	69.2
340	Trifolium Lateral 7	134A	7/1/2014	6/30/2015	75
341	Trifolium Lateral 8	144	7/1/2014	6/30/2015	38.6
342	Trifolium Lateral 8	147A	7/1/2014	6/30/2015	68.8
343	Trifolium Lateral 8	148	7/1/2014	6/30/2015	36.12
344	Trifolium Lateral 8	155A	7/1/2014	6/30/2015	71.1
345	Trifolium Lateral 9	164	7/1/2014	6/30/2015	37.2
346	Trifolium Lateral 10	186	7/1/2014	6/30/2015	21.1
347	Trifolium Lateral 12	224	7/1/2014	6/30/2015	44.3
348	Trifolium Lateral 12	228A	7/1/2014	6/30/2015	71.9
349	Trifolium Lateral 13	247	7/1/2014	6/30/2015	41.1
350	Trifolium Lateral 13	254	7/1/2014	6/30/2015	74.7
351	Trifolium Lateral 13	255	7/1/2014	6/30/2015	73.7
352	Trifolium Lateral 13	256	7/1/2014	6/30/2015	76.2
353	Trifolium Lateral 15	288	7/1/2014	6/30/2015	70.9
354	Trifolium Lateral 2	24	7/1/2014	6/30/2015	73.6
355	Trifolium Lateral 3	50A	7/1/2014	6/30/2015	71.3
356	Trifolium Lateral 3	51	7/1/2014	6/30/2015	146.6
357	Trifolium Lateral 3	57	7/1/2014	6/30/2015	73
358	Trifolium Lateral 4	67	7/1/2014	6/30/2015	37.5
359	Trifolium Lateral 6	109	7/1/2014	6/30/2015	153.2
360	Tuberose	143	7/1/2014	6/30/2015	98.2
361	Vail Lateral 2	217	7/1/2014	6/30/2015	144.1
362	Vail Lateral 2	219	7/1/2014	6/30/2015	136
363	Vail Lateral 2A	267	7/1/2014	6/30/2015	147.2
364	Vail Lateral 4	405	7/1/2014	6/30/2015	152.1
365	Vail Lateral 4A	455	7/1/2014	6/30/2015	68.8
366	Vail Lateral 4A	455	7/1/2014	6/30/2015	74

Imperial Irrigation District  
2014-2015 Following Program Participants

	Canal	Gate	Start Date	End Date	Acres
367	Vail Main	10	7/1/2014	6/30/2015	69.2
368	Vail Main	9	7/1/2014	6/30/2015	71.7
369	Westside Main	13A	7/1/2014	6/30/2015	113.1
370	Westside Main	93	7/1/2014	6/30/2015	36.4
371	Wisteria	123	7/1/2014	6/30/2015	113.5
372	Wisteria	124	7/1/2014	6/30/2015	88.4
373	Wisteria	16	7/1/2014	6/30/2015	176.7
374	Wisteria	47	7/1/2014	6/30/2015	125.2
375	Wisteria	67	7/1/2014	6/30/2015	78.9
376	Wisteria	68C	7/1/2014	6/30/2015	75.2
377	Wisteria	73	7/1/2014	6/30/2015	77.7
378	Woodbine	20	7/1/2014	6/30/2015	115.3
379	Woodbine	24	7/1/2014	6/30/2015	112.1
380	Woodbine	29	7/1/2014	6/30/2015	59.5
381	Woodbine	31	7/1/2014	6/30/2015	45.6
382	Woodbine	54	7/1/2014	6/30/2015	69.9
383	Woodbine Lateral 2	3	7/1/2014	6/30/2015	118.8
384	Woodbine Lateral 2	4	7/1/2014	6/30/2015	93.5
385	Woodbine Lateral 2	5A	7/1/2014	6/30/2015	74
386	Woodbine Lateral 2	5B	7/1/2014	6/30/2015	42.4
387	Woodbine Lateral 2	5C	7/1/2014	6/30/2015	69.4
388	Woodbine Lateral 2	5D	7/1/2014	6/30/2015	70.7
389	Woodbine Lateral 3	7	7/1/2014	6/30/2015	74.2
390	Wormwood	87	7/1/2014	6/30/2015	56.4

2014-2015 Following Program Total Acreage = 32,915.1

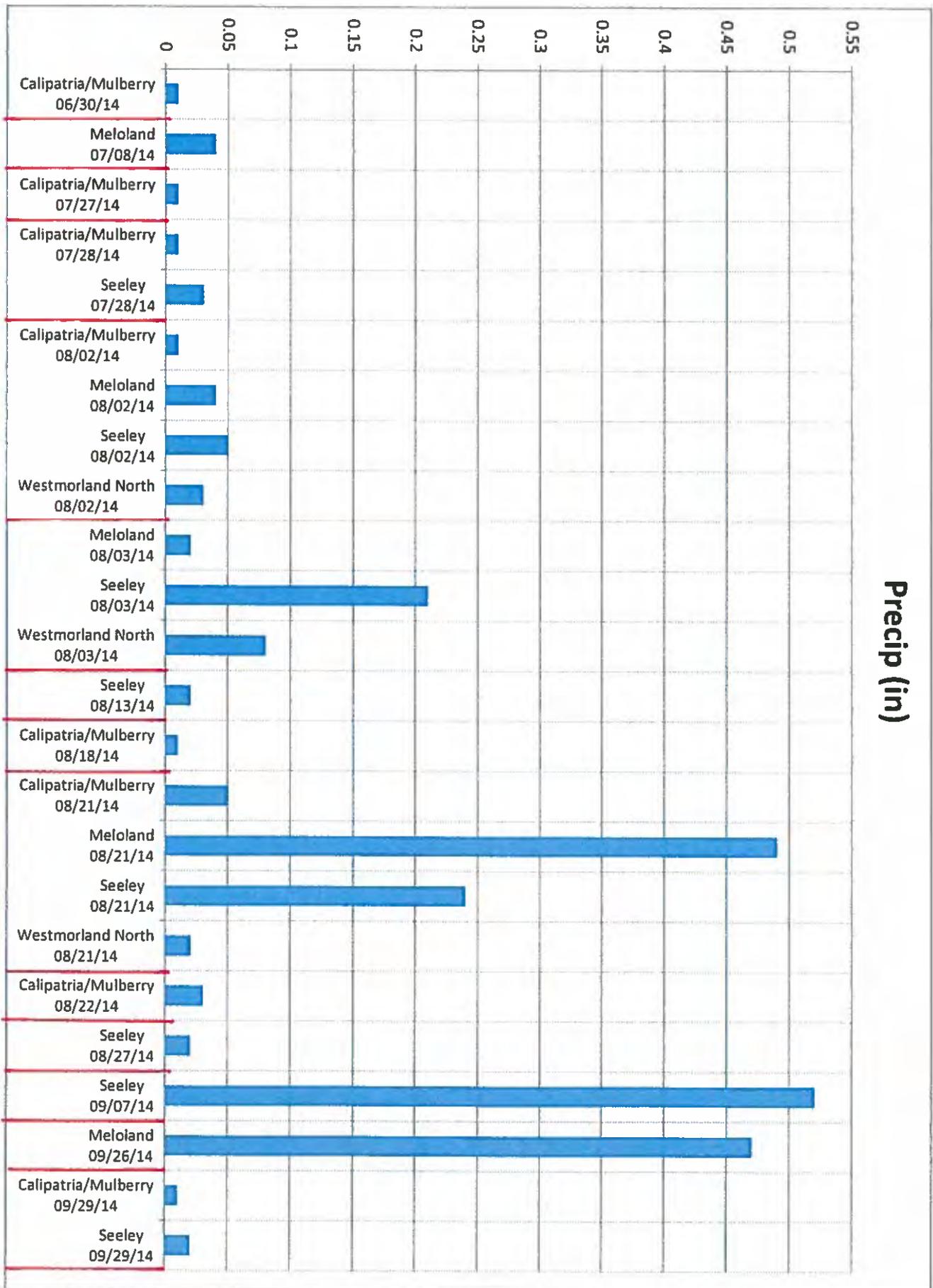
2014-2015 Following Program Provisional Water Yield at-Farm (AF) = 182,196.4

2014-2015 Following Program Provisional Water Yield at-River (AF) = 189,424.4\*

2014-2015 Following Program Contracts Expense = \$31,760,855

\* Provisional Only

Date	Station ID #	Station Name	Precip (in)
06/30/14	41	Calipatria/Mulberry	0.01
07/08/14	87	Meloland	0.04
07/27/14	41	Calipatria/Mulberry	0.01
07/28/14	41	Calipatria/Mulberry	0.01
07/28/14	68	Seeley	0.03
08/02/14	41	Calipatria/Mulberry	0.01
08/02/14	87	Meloland	0.04
08/02/14	68	Seeley	0.05
08/02/14	181	Westmorland North	0.03
08/03/14	87	Meloland	0.02
08/03/14	68	Seeley	0.21
08/03/14	181	Westmorland North	0.08
08/13/14	68	Seeley	0.02
08/18/14	41	Calipatria/Mulberry	0.01
08/21/14	41	Calipatria/Mulberry	0.05
08/21/14	87	Meloland	0.49
08/21/14	68	Seeley	0.24
08/21/14	181	Westmorland North	0.02
08/22/14	41	Calipatria/Mulberry	0.03
08/27/14	68	Seeley	0.02
09/07/14	68	Seeley	0.52
09/26/14	87	Meloland	0.47
09/29/14	41	Calipatria/Mulberry	0.01
09/29/14	68	Seeley	0.02



**Imperial Irrigation District****Main Canal Seepage Interception Project**

Quarterly Report of Volume Pumped - Q3 2014

PROVISIONAL DATA - SUBJECT TO CORRECTION

Volume pumped* (AF) as of 30 SEP 2014				
Site Code	Q1 2014	Q2 2014	Q3 2014	YTD 2014
DIX2	11	8	33	52
DIX4	23	40	87	149
EHL14	193	239	234	665
HOL1	1,533	1,786	1,788	5,108
HOL2C	349	339	368	1,056
HOL6	558	623	641	1,823
HOL7	756	816	972	2,544
HOL	671	783	906	2,360
MAG	66	78	77	221
MES	23	21	17	61
ML1	137	146	145	427
ML2	30	23	23	76
MOS	126	163	172	461
MUL	176	220	280	677
OR1	247	335	314	896
OR	385	534	616	1,534
PAM	457	597	590	1,643
TOW	138	131	99	368
VER2	228	244	222	694
VER4	385	510	450	1,346
VER	457	400	569	1,426
WAR2	19	18	10	46
<b>Total:</b>	<b>6,968</b>	<b>8,052</b>	<b>8,613</b>	<b>23,633</b>

\*All volumes are reported as measured at site and do not include conveyance losses.