



# IID

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June 29, 2012

Terry Fulp, Acting Regional Director  
Bureau of Reclamation  
Lower Colorado Region  
P.O. Box 61470  
Boulder City, Nevada 89006-1470

Subject: IID's 2013 Plan for the Creation of Extraordinary Conservation Intentionally Created Surplus

Dear Terry,

Please review the enclosed copy of Imperial Irrigation District's (IID) *2013 Plan for the Creation of Extraordinary Conservation Intentionally Created Surplus* (ICS Plan) in accordance with Section 2.5(A) of the *Lower Colorado River Basin Intentionally Created Surplus Forbearance Agreement* (ICS Forbearance Agreement) dated December 13, 2007.

IID's ICS Plan submittal contains project components that span multiple calendar years (in particular its following program), however IID acknowledges that the terms of the ICS Forbearance Agreement require annual approval of its ICS Plan by the Secretary in consultation with the Lower Division States. Since IID's following program term does not coincide with the calendar year (IID's following program was originally designed to coincide with local field leases – based on the local cropping seasons – and runs from July 1<sup>st</sup> of one year through June 30<sup>th</sup> of the following year), assumptions envisioned under the ICS program, IID continues to request that Reclamation consider approving its ICS Plans for multiple years when approved conservation projects are materially unchanged in order to facilitate program contracting.

While IID is submitting an ICS plan to allow for the creation of up to 25,000 acre-feet of extraordinary conservation in 2013, this request will likely decrease due to IID's focus on meeting its 2013 water transfer and 2011 inadvertent overrun payback obligations. IID may modify its water order as appropriate as more information becomes available.

Should you have any questions regarding the IID 2013 ICS Plan, please contact me at (760)339-9083.

Sincerely,

David Bradshaw  
Assistant Water Department Manager  
Agricultural Water Management

encl:IID 2013 ICS Plan

cc: Chris Harris, CRB  
Bill Hasencamp, MWD  
Halla Razak, SDCWA  
Steve Robbins, CVWD

**Imperial Irrigation District**  
**2013 Plan for the Creation of Extraordinary Conservation Intentionally Created Surplus**

**Introduction**

This plan for the creation of Extraordinary Conservation Intentionally Created Surplus (ICS) has been prepared pursuant to the specifications outlined in Section 3.B.1 on page 40 of the *Record of Decision: Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead* (Guidelines) signed by the Secretary of the Interior (Secretary) on December 13, 2007.

IID will implement two extraordinary conservation measures to create ICS in 2013, a fallowing program and a seepage recovery program, which are described in this plan and are incorporated as Exhibits D and F to the December 13, 2007, *Lower Colorado River Basin Intentionally Created Surplus Forbearance Agreement* (ICS Forbearance Agreement) among the Arizona Department of Water Resources, the Palo Verde Irrigation District, the Imperial Irrigation District, the City of Needles, the Coachella Valley Water District, Metropolitan, the Southern Nevada Water Authority, and the Colorado River Commission of Nevada.

The projected annual yields of these extraordinary conservation measures for calendar year 2013 are as follows:

<b>Conservation Measure</b>	<b>Annual Conservation Yield</b>
IID On-Farm Fallowing Program	up to 25,000 acre-feet
IID Main Canal Seepage Interception System	up to 12,000 acre-feet
<b><i>Annual Extraordinary Conservation ICS Total</i></b>	<b><i>not to exceed 25,000 acre-feet</i></b>

The total annual conservation yield of these activities in 2013 is estimated to be up to 25,000 acre-feet, the annual volume of Extraordinary Conservation ICS that IID may create (excluding Excess Extraordinary Conservation ICS) under the December 13, 2007, *California Agreement for the Creation and Delivery of Extraordinary Conservation Intentionally Created Surplus* (California ICS Agreement). Without implementing the aforementioned Extraordinary Conservation measures for ICS purposes, this water would have been diverted by IID for beneficial use within its water service area. The total annual yield of these activities will not exceed the 25,000 acre-feet of Extraordinary Conservation ICS available to IID each year as described in the California ICS Agreement. Additionally, the accumulated volume of annual conservation created by IID will be equal to or less than the 50,000 acre-feet of Extraordinary Conservation ICS available to IID and similarly described in the California ICS Agreement. For purposes of this planning period, at this time IID does not anticipate creating any Excess Extraordinary Conservation ICS to be delivered to the MWD system.

IID will submit to the United States Bureau of Reclamation (USBR) its annual Extraordinary Conservation ICS estimate each year as a line item in its yearly ‘estimate of diversion’ (“water order”), and any ICS yield estimate decreases within the calendar year will be relayed to USBR via mid-year ‘water order’ estimate revisions. Mid-year reductions to ICS conserved water estimates would generally be the result of (but not necessarily limited to) (1) the final ‘truing up’

of IID following program provisional conservation yields based on actual (as opposed to estimated) monthly water use and savings, with minor adjustments to account for any contract breaches by the following participants; (2) implementation/contracting for the IID following programs; (3) USBR finalization of provisional decree accounting records (in particular accounting changes and true-ups to IID's Inadvertent Overrun and Payback Policy (IOPP) obligations (or that payback obligation performed by IID on behalf of another entitlement holder); (4) any II(B)(6) unused apportionment credited to IID; and (5) operational and maintenance issues affecting the Main Canal Seepage Interception System.

**Imperial Irrigation District**  
**Plan for the Creation of Extraordinary Conservation Intentionally Created Surplus**  
**On-Farm Fallowing Program**

**Project Description**

Extraordinary Water Conservation created by an IID fallowing program is described in Exhibit D of the December 13, 2007, *Lower Colorado River Basin Intentionally Created Surplus Forbearance Agreement* (ICS Forbearance Agreement).

The Imperial Irrigation District (IID) Fallowing Program is a voluntary program that allows willing landowners and/or lessees to contract with the IID to fallow agricultural fields to create conserved water for various purposes including:

- Transfer to the San Diego County Water Authority (SDCWA)
- Mitigation of environmental impacts resulting from reduced inflow to the Salton Sea
- Satisfaction of payback obligations under the *Colorado River Water Delivery Agreement* (CRWDA)
- Compliance with any inadvertent overrun obligations under the *Inadvertent Overrun and Payback Policy* (IOPP)
- Limitation of IID's Priority 3 diversions for the annual 3.1 million acre-feet cap
- Creation of Extraordinary Conservation Intentionally Created Surplus (ICS)

The price for conserved water by fallowing is annually determined by the IID Board of Directors. Applications are sent to solicit participants to conserve water by fallowing agricultural fields in exchange for payment. IID uses a random selection process to contract the necessary amount of fallowing acreage required to meet annual conservation goals. Eligibility criteria require that a field be at least 10 acres in size and have been irrigated for crop production the previous three years (excluding the years contracted with IID for fallowing); each field's participation in an IID Fallowing Program is limited to two out of every four years. Additionally, the fallowing participants must warrant that the fallowed lands would have been planted for agricultural production during the fallowing term, and designate the crops that would have been grown on the participating fields had those lands not participated in the IID Fallowing Program.

Initial program parameters were established in the Phase I On-Farm Fallowing Program Plan (see <http://www.iid.com/Modules/ShowDocument.aspx?documentid=630>) dated March 18, 2004. Revisions to this document were made in 2006 (see <http://www.iid.com/Modules/ShowDocument.aspx?documentid=611>) and are anticipated to be updated again in 2013. Additional minor program changes have been incorporated into the contractual documents (entitled *Agreement for Fallowing Land in the Imperial Irrigation District*) on an annual basis as necessary. Links to annual fallowing program summary information, which includes the contract templates, can be accessed from IID's fallowing webpage at <http://www.iid.com/index.aspx?page=190>.

Since 2003, IID has conducted ten separate fallowing programs and is currently contracting for the eleventh. In total, IID has paid participants over \$42 million to fallow approximately 117,000 acres of agricultural lands within its service area, yielding over 730,000 acre-feet of conserved water.

### **Term of the Activity**

IID's fallowing program was initially designed with a 12-month term to coincide with field leases based on cropping seasons that run from July 1<sup>st</sup> of one year through June 30<sup>th</sup> of the following year. In 2009, IID began offering these mid-year contracts with a 24-month term to accommodate local lease schedules and farm planning considerations. For its 2012-2013 fallowing program, IID may consider contract terms ranging from six to 24 months to offer participants increased flexibility. As with IID's past fallowing programs, future fallowing programs' terms may not correspond to the calendar year. Regardless, IID anticipates administering fallowing programs through 2017 as per the QSA and related agreements.

### **Estimated Volume of Water to be Conserved**

Up to 25,000 acre-feet of conserved water is anticipated to be created annually for ICS purposes from IID on-farm fallowing programs. This amount will vary based on the number of contracted fields and the conservation yields associated. Conserved water yield estimates for fallowed fields are determined individually based on the previous year's water history, ten-year running average water history baseline (excluding high and low years), and are reviewed for material trend deviation in recent years and crops grown during the previous three years.

Consumptive use reduction accounting occurs at IID's Imperial Dam (Station 60) diversion point to account for total losses from the field to Imperial Dam for participating fields in the IID fallowing programs. IID will utilize the transportation loss accounting methodology described in USBR's December 3, 2007 letter to IID for the IID Fallowing Programs.

### **Proposed Methodology for Verification of the Amount of Water Conserved**

IID staff monitors fields to verify canal water is not being delivered for irrigation purposes, and all farm turnout gates are locked (shared gates require the delivery ditch be blocked or a physical obstruction be installed to prohibit water delivery to the participating field). In addition, IID inputs modified crop codes into its computerized water order system to prevent water orders from being processed on fallowed fields and indicate participation in an IID fallowing program.

Fallowed field locations are posted to IID's website and are provided to USBR after the fallowing contract execution deadline. USBR staff has conducted semi-annual verifications, visiting randomly selected fields to account for five percent of the total acreage enrolled in the IID fallowing programs. Blind data sets illustrating the historical water use and conserved water yield calculations for the fields selected by USBR are shared with USBR staff during their verification site visits. These verification site visits are documented in a USBR report entitled "IID Extraordinary Conservation Program Verification" that includes fallowed field verification summary data and field observations (including photographs of the fallowed field) to confirm implementation of this extraordinary conservation measure.

### **Regulatory Approvals**

IID has completed an environmental assessment of proposed water conservation and transfer activities and diversion limitations pursuant to the California Environmental Quality Act (CEQA), as set forth in a *Final EIR/EIS for the IID Water Conservation and Transfer Project* certified by IID in June 2003, as supplemented by an *Amended and Restated Addendum* thereto certified by IID in October 2003.

**Imperial Irrigation District**  
**Plan for the Creation of Extraordinary Conservation Intentionally Created Surplus**  
**Main Canal Seepage Interception System**

**Project Description**

Extraordinary Water Conservation created by an IID seepage recovery program is described in Exhibit F of the December 13, 2007, *Lower Colorado River Basin Intentionally Created Surplus Forbearance Agreement* (ICS Forbearance Agreement).

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 main canals located in areas of highly permeable soils. These open drains were constructed decades ago to intercept seepage from certain main canals and carry it to the Salton Sea to relieve adjacent agricultural lands of high water tables associated with canal seepage. The Main Canal Seepage Interception System has the capacity to collect 30,000-40,000 acre-feet of water from these existing interceptor drains and pump it back into the main canals to supply downstream water users. In total, 22 pumping stations were constructed at the lower ends of interceptor drains and are operated so as 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.

This seepage recovery project was designed to provide conserved water for transfer under the QSA and related agreements; 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 through at least 2015. 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 and related agreements to the agreed upon transferee.

Project design and construction began in 2008 with the installation of four pump stations and construction of most of the remaining project capital improvements. The remaining pumps were installed in early 2009 and substantially complete by the end of that year. The Main Canal Seepage Interception System had a total engineering, design, and construction budget of \$7,665,000.

**Term of the Activity**

IID Main Canal Seepage Interception System was substantially built and fully operational in 2009. Excess conserved water from this seepage recovery project is estimated to be available for payback and ICS purposes through at least 2015 based on current extraordinary conservation yield estimates and water transfer and delivery schedules.

### **Estimated Volume of Water to be Conserved**

IID's Main Canal Seepage Interception System consists of 22 pump stations with total recovery capacity estimated at up to 40,000 acre-feet per year. However, Section 1 (page 3) of the December 13, 2007, *California Agreement for the Creation and Delivery of Extraordinary Conservation Intentionally Created Surplus* (California ICS Agreement) limits the annual creation of Extraordinary Conservation ICS by IID to not more than 12,000 acre-feet from seepage recovery projects.

Consumptive use reduction accounting occurs at IID's Imperial Dam (Station 60) diversion point to account for total losses from the Main Canal Seepage Interception Systems to Imperial Dam. IID will utilize the same transportation loss accounting methodology, described in detail in USBR's December 3, 2007 letter to IID, as that used for its following programs.

### **Proposed Methodology for Verification of the Amount of Water Conserved**

Intercepted seepage water pumped to the main canal will be continuously metered and the data reported electronically to IID's Operations Center where it will be subject to quality control procedures and stored in a relational database. Electrical conductivity readings of the intercepted water will also be monitored for salinity to ensure there are no significant local water quality impacts from this project.

Seepage recovered through the Main Canal Seepage Interception System will be reported to USBR on a quarterly and annual basis. All measurements are subject to verification by USBR for accuracy and 5 percent of the project pumps are visited semi-annually by USBR staff to verify operational status and metering data. These verification site visits are documented in a USBR report entitled "IID Extraordinary Conservation Program Verification" that summarizes site conditions (including photographs of the pumping station) and documents water records and flow data to confirm implementation of this extraordinary conservation measure.

### **Regulatory Approvals**

IID has completed an environmental assessment of proposed water conservation and transfer activities and diversion limitations pursuant to the California Environmental Quality Act (CEQA), as set forth in a *Final EIR/EIS for the IID Water Conservation and Transfer Project* certified by IID in June 2003, as supplemented by an *Amended and Restated Addendum* thereto certified by IID in October 2003.