



## 2A. Project Summary Table

Table 4 – 2015 IRWM Grant Solicitation Project Summary Table		
IRWM Project Element		Proposition 84 Drought Relief Turf Replacement Program
IR.1	Water supply reliability, water conservation, and water use efficiency	YES
IR.2	Stormwater capture, storage, clean-up, treatment, and management	
IR.3	Removal of invasive non-native species, the creation and enhancement of wetlands, and the acquisition, protection, and restoration of open space and watershed lands	
IR.4	Non-point source pollution reduction, management, and monitoring	
IR.5	Groundwater recharge and management projects	
IR.6	Contaminant and salt removal through reclamation, desalting, and other treatment technologies and conveyance of reclaimed water for distribution to users	
IR.7	Water banking, exchange, reclamation, and improvement of water quality	
IR.8	Planning and implementation of multipurpose flood management programs	
IR.9	Watershed protection and management	
IR.10	Drinking water treatment and distribution	
IR.11	Ecosystem and fisheries restoration and protection	



## 2B. Project Description

**Project Name:** Turf Replacement Assistance Project in the City of El Centro

**Implementing Agency/Organization:** City of El Centro

**Project Description:** Regional drought impacts are at a critical point in the Imperial Region due to the extended drought of the Colorado River.<sup>1</sup> While urban supplies in the Region are relatively safe in comparison to agricultural supplies (i.e., agricultural lands are being fallowed to protect urban supplies), the threat of water supply shortages and reduced water quality for urban water supplies is very real. The Turf Replacement Assistance Project consists of working with residents that need help complying with the State-wide drought regulations who would like to keep their lawn aesthetically pleasing at the same time. This project is specifically addressing local water supply reliability in a drought-stricken and environmentally sensitive region of California.

The project will consist of the residents/homeowners submitting an application for the turf replacement program. The City will then assess the property to ensure that area being discussed is of adequate size (front yard, 2,000 sf maximum). Once this has been completed, the City will partner with the homeowner and assist them with the costs (50%) to replace the turf with a more drought-resistant type of landscaping. By doing this throughout the City with the available funds, the City will have a better chance of achieving the current 25% water reduction imposed by the State.

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## 2C. Annual Project Physical Benefits

The Turf Replacement Program Project is being put in place to achieve one quantifiable physical benefit:

- 1. Water Supply Saved:** This project is a dire need for the DAC of El Centro due to the fact that the State has issued mandatory water reductions. With the weather having severe heat for more than 70% of the year, it is extremely difficult for residents to keep their landscaping in good condition as well as aesthetically pleasing. This project will assist residents in replacing their grass (turf) with a more drought resistant type of landscaping. By doing this, the City will have a much better chance of meeting the required 25% reduction percentage.

Table 5 – Annual Project Physical Benefits			
Project Name: Proposition 84 Drought Relief Turf Replacement Program			
Type of Benefit Claimed: Water Supply Saved			
Units of the Benefit Claimed : Acre Feet per Year			
Anticipated Useful Life of Project (years): 2 Years			
(a)	(b)	(c)	(d)
Physical Benefits			
Year	Without Project	With Project	Change Resulting from Project (c) – (b)
2015	0	11.5	11.5
2016	0	11.5	11.5

**Comments: The City has approximately 10,000 water accounts. Assuming that 50% of the funds will be used in 2015 and 50% of the funds will be used in 2016. Also, this assumes that no/minimal residents will reduce their water consumption.**



## 2D. Technical Analysis of Physical Benefits Claimed

**Background:** The imperial IRWM Region is characterized as being located in the southeast corner of Imperial County – bordered by the crest of the Chocolate Mountains (which lie west of the Colorado River), to the west by San Diego County, to the north by the Coachella Valley IRWM boundary, the Salton Sea and Riverside County, and to the south by the U.S./Mexico International Border.

The area, having an annual average rainfall of less than three inches a year, relies exclusively on imported Colorado River water. With the State-wide drought, the City has determined that the most efficient/economical option to meet the regulations is to assist homeowners with the replacement of turf with a more drought-resistant landscaping that will not only help in the reduction of water usage but will also keep the City looking beautiful.

**Estimates of Without-Project Benefits:** Without the project being proposed, there will most likely be no physical benefits in the future due to other projects. The only physical benefits that may arise will be due to the residents who can afford to change the landscaping on their own, which will reduce the amount of water being used.

**Description of Methods used to Estimate Physical Benefits:** The City is currently working on changing its water meters to the wireless remote-reading meters. This will assist the City in measuring the amount of water being used at each residence by simply looking up a certain address on the City's software that will accompany the meters. The residents that participate in the turf-replacement program will have their water-usage data reviewed and analyzed to determine how much water was actually saved in comparison to the overall reduction rate obtained City-wide.

**Identification of all New Facilities, Policies, and Actions Required to Obtain the Physical Benefits:** No new facilities will be created to obtain the proposed physical benefit of water reduction. There will be policies and actions required, however, that will come into play if the City is funded for the proposed project. The City will need to determine an exact set of rules/guidelines to be followed by both the City and the residents that will be participating in the turf replacement program. These rules/guidelines will need to be adopted as Action Items by the City Council of the City of El Centro.

The project will consist of the residents/homeowners submitting an application for the turf replacement program. The City will then assess the property to ensure that area being discussed is of adequate size (front yard, 2,000 sf maximum). Once this has been completed, the City will partner with the homeowner and assist them with the costs (50%) to replace the turf with a more drought-resistant type of landscaping. By doing this throughout the City with the available funds, the City will have a better chance of achieving the current 25% water reduction imposed by the State.

**Description of Any Potential Adverse Physical Effects and What is Being Done to Mitigate Those Impact:**

Due to the nature of this project, the City sees no adverse physical effects occurring as a result of the turf replacement program.

**Description of Whether the Proposed Project Effectively Addresses Long-Term Drought Preparedness:**

Based on the Statewide Priority in Table 1 of the 2015 Guidelines, the proposed project effectively addresses three of the six items listed for long-term drought preparedness. By assisting residents in replacing their turf with a more drought resistant landscaping, the program will assist the City in the following ways:

- Promote water conservation, conjunctive use, reuse and recycling
- Improve landscape and agricultural irrigation efficiencies
- Achieve long-term reduction of water use.



## 2E. DIRECT WATER-RELATED BENEFIT TO A DAC

**DAC:** The proposed project area does encompass a DAC, which can be seen in Attachment 7.

**Water-Related Need:** The City of El Centro is located in the Imperial Valley and averages 100 degrees Fahrenheit 6-months out of the year (May through October). With these high temperatures, along with the new State-wide drought regulations to reduce water usage, the City is in dire need of assistance to meet these goals while keeping the City looking aesthetically pleasing. Residents are having a hard time complying with the regulations while keeping their lawns alive at the same time, resulting in many homeowners to simply give up and not water their lawns any more.

**Proposed Project:** The proposed project will address the need of the DAC (City of El Centro) in more ways than one. First, the project will help the City reach the State-wide regulation of 25% water conservation. Next, the project will allow residents to keep their lawns looking beautiful while using little to no water for irrigation purposes. The drought-resistant landscaping will not only be beneficial during the drought, but will be beneficial once the drought is over. It will allow residents to have a low-maintenance area in their front yards and continue helping the State in the case of any future droughts.



## 2F. PROJECT PERFORMANCE MONITORING PLAN

<b>Table 6 – Project Performance Monitoring Plan</b>		
<b>Project: Proposition 84 Drought Relief Turf Replacement Program</b>		
<b>Proposed Physical Benefits</b>	<b>Targets</b>	<b>Measurement tools and methods</b>
Water Supply Saved	25%	Advanced Water Meters*

\*The City is currently in the process of replacing all of the water meters throughout the City with Advanced meters that will allow for anyone with access to see how much water is being used at each residence and when it is being used. With the turf replacement program, the homeowners who opt-in will be told that their water usage will be followed and compared to their historical data. The data will be analyzed as a single unit, as well as in comparison to the rest of the City. The overall City consumption will then be reviewed and compared to historical data as well to see if the goal of 25% is being reached.



## 2G. COST EFFECTIVE ANALYSIS

<b>Table 7 – Cost Effective Analysis</b>	
<b>Project name: Proposition 84 Drought Relief Turf Replacement Program</b>	
Question 1	<p><b>Types of benefits provided as shown in Table 5</b></p> <p>Water Supply Saved</p>
Question 2	<p>Have alternative methods been considered to achieve the same types and amounts of physical benefits as the proposed project been identified?</p>
	<p>Yes</p> <p>The City has implemented its own regulations to try and reach the required 25% water conservation. Some of the methods include, but are not limited to: prohibiting potable water from being used for construction purposes, limiting the watering to two days a week between the hours of 8pm and 8am, and enforcing fines for overwatering.</p>
Question 3	<p>This is the most preferred option to assist the City in reducing the water consumption because it assists the residents of El Centro as well. We would like to keep the City looking as aesthetically pleasing as possible; however, without a program such as this it will be inevitable. With residents getting to the point that they do not want to take care of their lawns because they may get fined for it, this program is the most viable option to reduce the consumption and keep the City looking presentable</p>
Comments:	