...RST LEVEL SCREENING – WEEG 2015

APPLICANT NAME: City of San Buenaventura	CONTROL NUMBER: 119
APPLICANT LOCATION: 501 Poli street, Ventura, CA, 93002	TASK AREA:
PROJECT NAME: Ventura Be Water Wise Incentive Program	BOR $: 300,000
	Cost Share $: 895,202

Rebate program turf removal, low flow sprinkler, HE clothes washer

	SCREENING FACTOR	COMPLETE	COMMENTS
1	Eligibility requirements		
	• Eligible applicant in a Reclamation state	✓YES __NO	
	• 50% or more non-Federal cost share	✓YES __NO	
	• Authorized funding amount ($1 Million total – no more than $500,000 a year)	✓YES __NO	
	• Funding Group I or II	✓I __II	
	• Length of project (9/30/17 – FG I or 9/30/18 – FG II)	✓YES __NO	
2	Proper format and length (75 pages)	__YES __NO	
3	Proposal content		
	• SF-424 (authorized signature)	✓YES __NO	
	• SF-424B or SF-424D (authorized signature)	✓YES __NO	
	• Title page	✓YES __NO	
	• Table of contents	✓YES __NO	
	TECHNICAL PROPOSAL/EVALUATION CRITERIA (No More Than 50 Pages)		
	• Executive summary	✓YES __NO	
	• Background data	✓YES __NO	
	• Technical Project description	✓YES __NO	
	• Evaluation Criteria	✓YES __NO	
	• Project Benefits/Performance Measures	✓YES __NO	
	• Potential Environmental Impact Desc.	__YES ✓NO	
	• Required Permits/Approvals, if applicable	__YES ✓NO	
	• Letters of Project Support	__YES ✓NO	
	• Official Resolution (Required 30 Days After)	✓YES __NO	
	PROJECT BUDGET		
	• Funding Plan	✓YES __NO	
	• Letters of Funding Commitment	__YES ✓NO	
	• Budget Proposal	✓YES __NO	
	• Budget Narrative	✓YES __NO	
	• SF-424A or SF-424C	✓YES __NO	

st Level Screening Comments (Screening Committee Member):

ummary Comments (Grants Officer):

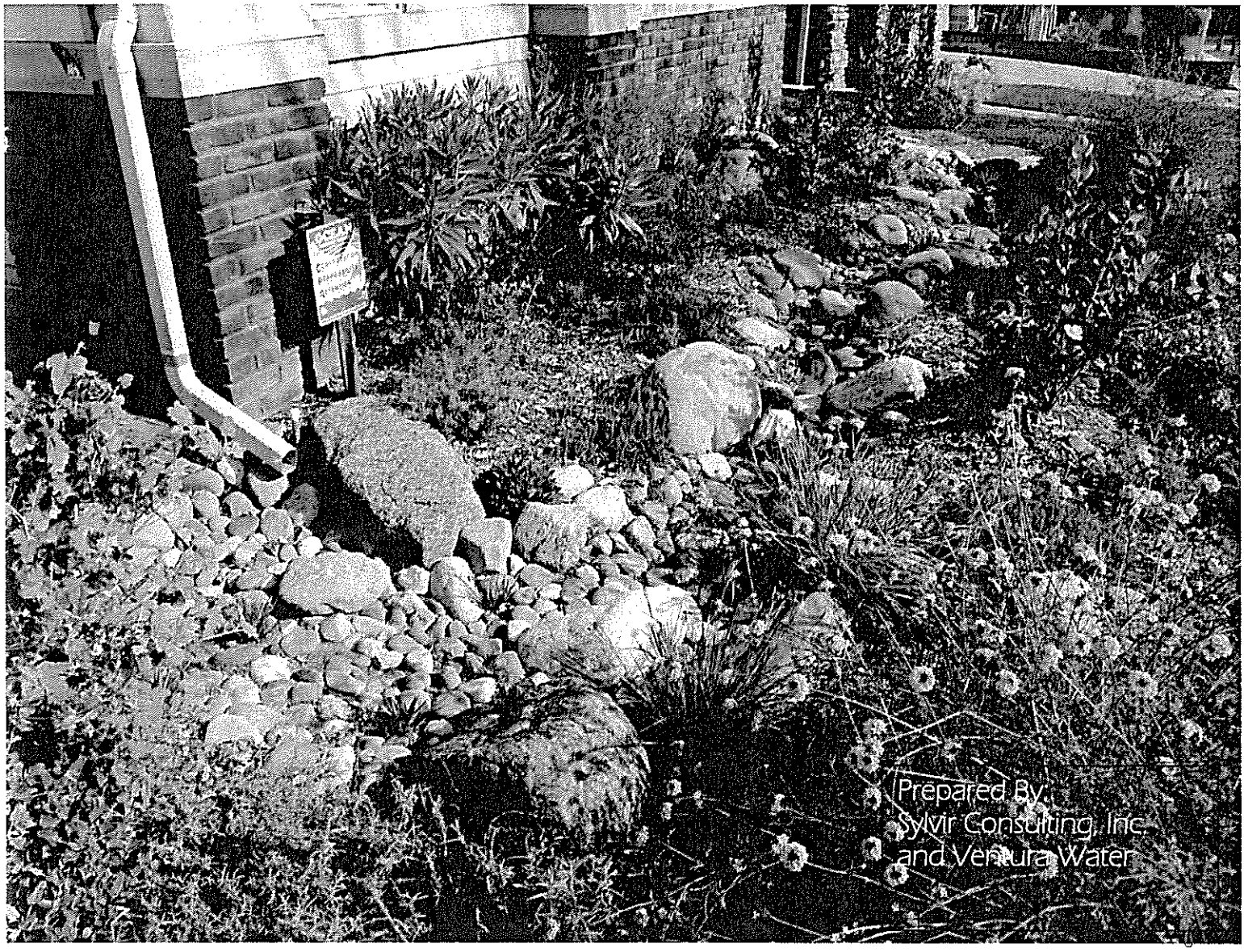
pplicant is eligible for consideration during the Second Level Evaluation phase ✓ **Yes** ____ **No**

ants Officer _____ **Date** 1/28/15

VENTURA WATER

U.S Bureau of Reclamation
WaterSMART Water and Energy Efficiency Grrant
2015

Ventura Be Water Wise Incentive Program



Prepared By:
Sylvir Consulting, Inc.
and Ventura Water

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List of Acronyms

AF	Acre-feet
AFY	Acre-feet per year
BA	Biological Assessment
BMP	Best Management Practices
CEQA	California Environmental Quality Act
CIP	Capital Improvement Plan
CMWD	Casitas Municipal Water District
CUWCC	California Urban Water Conservation Council
EPA	U.S. Environmental Protection Agency
IRWMP	Integrated Regional Water Management Plan
mg	million gallons
MOU	Memorandum of Understanding
NEPA	National Environmental Policy Act
NOAA Fisheries	National Oceanic Administration, National Marine Fisheries
SCE	Southern California Edison
sf	square feet
UWMP	Urban Water Management Plan
VFD	Variable Frequency Drive
WBIC	Weather-Based Irrigation Controller

TECHNICAL PROPOSAL AND EVALUATION CRITERIA

Executive Summary

Date:	January 23, 2015
Applicant:	City of San Buenaventura (aka City of Ventura)
Applicant City, County, State:	Ventura, County of Ventura, California
Project Location:	City of Ventura, CA
Project Name:	Ventura Be WaterWise Incentive Program
Project Duration:	24 months

Estimated Project Completion Date: September 2017

Funding Group: I

Project Summary:

Purpose: Reduce residential and commercial water consumption 20% using water conservation incentives.

Objectives:

(1) Provide a convenient, comprehensive water conservation program that utilizes a customized approach to maximize water savings.
(2) Inspire customers to reduce landscape irrigation demands through participation in the transformation of traditional lawns to ocean-friendly gardens.

The proposed project activities are included as approved water conservation incentives under the following plans: the City's 2010 Urban water Management Plan, the 2011 Water Use Efficiency Plan, the adopted 2013-2019 Capital Improvement Plan, and the 2013 Sustainable Water Use in the Ventura River Watershed Report.

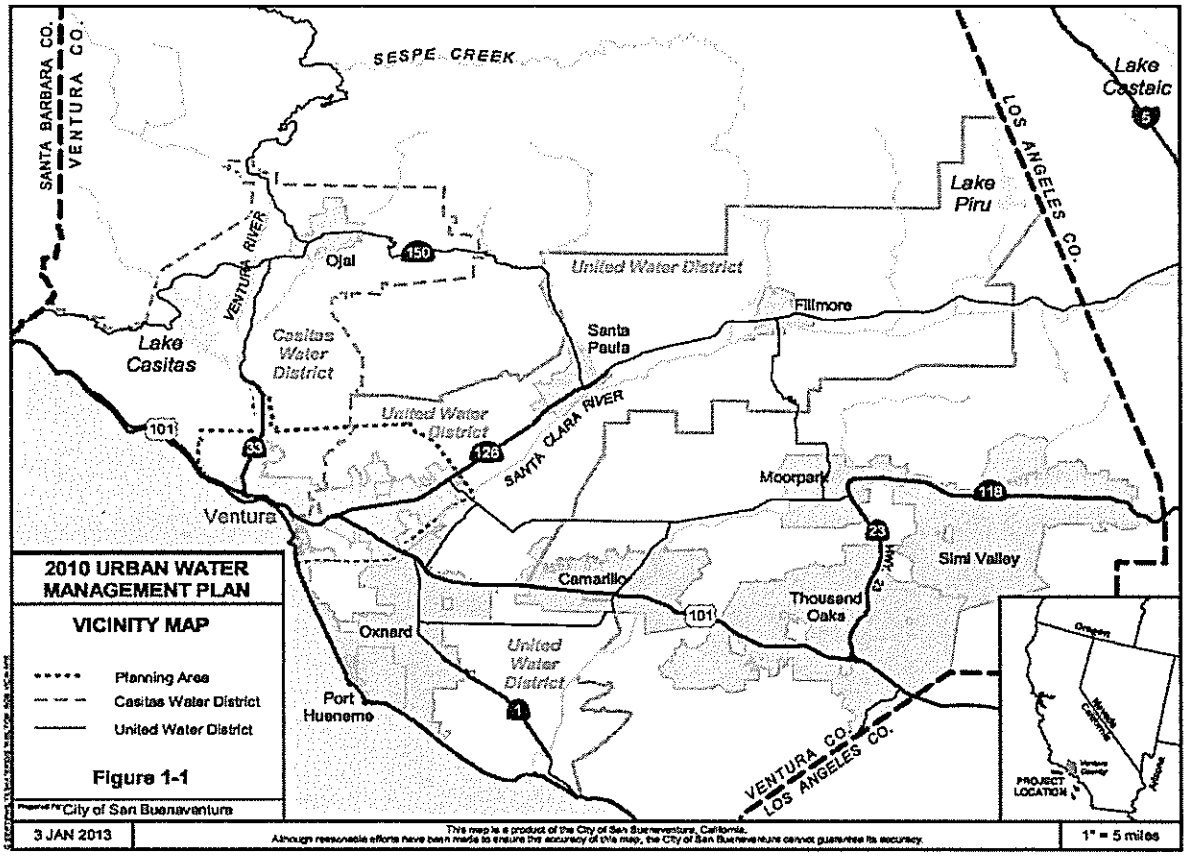
The proposed project will allow Ventura Water to save an estimated 191.44 AF of water per year and approximately 71,238 kWh annually.

These improvements support Reclamations objectives to leverage local funds and resources to conserve and use water more efficiently, improves energy efficiency, benefits the endangered southern California Steelhead, reduces greenhouse gases, and supports the region supporting the continued selling of a portion of the City's State Water Project allocations under the Monterey Amendment Settlement Agreement to the SWP contracts to be purchased by other SWP contractors.

This project is not located on a Federal facility.

Background Data

The City of Ventura is located 62 miles north of Los Angeles and 30 miles south of Santa Barbara along the California coastline. The City's planning area is bounded by the Ventura River on the west, Foster Park and the Ojai Valley to the north, Franklin Barranca and the Santa Clara River to the east, with the Pacific Ocean as the southern boundary. The total planning area encompasses approximately 40 square miles.



In 1923, the City acquired the water system, along with its water rights from the Ventura River, from the Southern California Edison Company and assumed the responsibility of providing water to City residents.

In 1960, the City began to purchase surface water from Casitas Municipal Water District to supplement its water supplies. As development quickly expanded to the east, the existing water systems and groundwater rights of the Saticoy and Mound Water Companies were purchased to accommodate this growing water demand. Since then, the City has worked to join the systems to improve the reliability of the overall water infrastructure and operations. Groundwater supplies are from three groundwater basins—Mound, Oxnard Plain, and the

Santa Paula. Water from these sources accounts for approximately 9,700 AFY, or approximately half of the City's total supply.

In 1964, Ventura County Flood Control District contracted with the State of California for future delivery of up to 20,000 AFY of California State Water Project (SWP) water to Ventura County. In 1971, administration of the contract for SWP water was assigned to the Casitas Municipal Water District. The City executed an agreement with the Casitas Municipal Water District (CMWD) and the Department of Water Resources (DWR) to allocate 10,000 AFY of the entitlement to the City of Ventura. This obligation extends to 2035.

In the contract with CMWD, Ventura retains full authority and responsibility for advance scheduling of its SWP water and for determining the point and method of delivery. To date, the City has not received delivery of its annual SWP allocations. In 1999, the City became a signatory to the SWP Monterey Amendment Settlement Agreement, which allows the City and other SWP contractors to sell surplus allocated water back to the SWP pool of supplies.

The Monterey Amendment Settlement Agreement to the SWP contracts in 1999 provided the City a formal mechanism to allow it to place its annual SWP water allocation into a "turn back" pool to be purchased by other SWP contractors. The City has taken part in the "turn back" pool over the past several years, which has allowed the City to recoup a small part of its annual SWP payment obligation. The City has also worked with the United Water Conservation District (United), which requests (depending on local hydrologic conditions and percent of SWP water available each year) some portion of the City's annual allocation at the "turn back" pool rate. This provides water recharge benefits to the County area as a whole.

The City, CMWD, and United (referred to as the Joint Agencies) pay annual contractual fees to DWR, which cover construction costs for SWP facilities and administration to deliver allocations of water throughout the state.

There are presently three (3) distinct water sources providing water to the City water system:

1) Casitas Municipal Water District (Lake Casitas),

2) Ventura River Foster Park Area via surface water intake and the Upper Ventura River Groundwater Basin/Subsurface intake and wells,

3) Groundwater
   a. Mound Groundwater Basin,
   b. Oxnard Plain Groundwater Basin (Fox Canyon Aquifer), and
   c. The Santa Paula Groundwater Basin.

The City currently purchases water from Casitas through an agreement that requires a minimum purchase of 6,000 AFY and permits the purchase of up to 8,000 AFY. In a typical year, the City purchases 6,000 AF of water annually.

The United Water Conservation District is primarily a groundwater recharger in central Ventura County. The City owns 13 groundwater wells located within the UWCD boundaries,

and are therefore subject to semi-annual extraction fees.

The balance of City's water is from the Ventura River. Water from this source accounts for approximately 20 percent the City's water supply. However, this amount fluctuates from as low as 2,300 AFY to 7,000 AFY depending on local hydrology and operational constraints.

The City water system is a complex system of 16 pressure zones, 13 wells, 21 booster stations, approximately 380 miles of pipelines ranging from 4-inches to 36-inches in diameter, and a total storage capacity of approximately 52 million gallons (mg) in 32 tanks and reservoirs serving an estimated population of 113,500 and 31,650 water service connections, inclusive of the population of Ventura plus several unincorporated County areas. The system delivers water from sea level to a maximum elevation of over 1,000 feet. The City operates three purification facilities, including one membrane filtration treatment plant for surface water sources on the west side of the City, and two iron/manganese removal treatment plants for groundwater sources on the east side. The City also maintains and operates the Ventura Water Reclamation Facility, which discharges tertiary treated for recycled water distribution for large landscape irrigation and direct discharge to wetlands and to the Santa Clara River Estuary.

Water service is provided to all residential, commercial, industrial and irrigation customers; including fire protection users. The City's water use is summarized below.

Water Demand by Customer Type

Customer Type	Connections	Average Water Consumption (AFY)*
Residential	23,158 – Single-Family 2,372 – Multi-Family	10,627.05
Commercial	2536	3,406.41
Industrial	4	68.58
Institutional/Government	185	478.37
Large Landscape	258	521.52
Petroleum Recover Operations	2	312.11
Other/Miscellaneous[1]	—	121.38
Subtotal		15,535.42
Recycled Water		600
Total		16,135.42

*Average based on the past 3 years of actual consumption quantities.

Past Working Relationship with Reclamation

The City of Ventura recently completed Title XVI grant funded Recycled Water Delivery Project Expansion Feasibility Study; agreement number R12AC35349. This was a facilities planning study for expanding recycled water deliveries to the Santa Clara River estuary. This study was

[1] Temporary construction, street sweeping, fire line meters, and water rights to Alta Mutual Water Company customers.

successfully completed in May 2014 and accepted by Reclamation.

Technical Project Description

The Ventura Water Wise Incentive Program will be a new water conservation program that focuses on providing all customers with the opportunity to take advantage of multiple incentives to reduce outdoor water use. The rebates will be offered for up to 18 months or until the funding has been exhausted, followed by a period of evaluation and final report preparation.

The following table is a summary of the rebate programs and their estimated savings.

Water Conservation Programs and Incentives	Description	Quantity	Cost	AFY	Lifetime AF Saved	Life Expectancy (yrs)
Turf Removal Rebate	A financial incentive of $2/square foot of turf removed.	500,000	$1,000,000	20.45	204.54	10
WBIC	$200/controller, plus $35/ extra station	200	$ 23,000	5.8	57.85	10
Low-flow Sprinklers	Voucher for 25/customer	12,500	$ 50,000	163.73	1637.31	10
HE Clothes Washer Rebates	$75 rebate	200	$ 15,000	1.47	20.62	14
Totals			$ 1,088,000	191.44	1,920.33	10

The Program incorporates the following elements:

1) Water Use Audit

A third party administrator will conduct water surveys and identify the appropriate measure or device per property and to verify pre and post turf replacement (if applicable). Verification of implementation of the purchase/installation/completion of water conservation measures will primarily be limited to the submission of photos, receipts, and plant lists.

2) Landscape Water Efficiency Incentives

Customers will be required to submit the rebates and complete installations within a prescribed timeframe.

a. Ocean Friendly Garden Rebate Program

An Ocean Friendly Garden ™ is a garden that uses rainwater as a resource and employs conservation, permeability and retention practices, to help keep our oceans and rivers cleaner and reduce dependence on potable water supplies for landscape irrigation.

The goal for of this rebate activity is to yield long-term water savings as a result of converting the turf to low water, ocean friendly gardens. An initial search of high water users revealed 558 such customers that currently meet or exceed water use of 100 HCF

per month; however, the City will not restrict any customer from participating in the rebate program. Upon award, the City will generate a list of the City's highest water consumers and make direct contact with the customers and offer the ocean friendly garden rebate program via phone calls, letters, and/or in person.

The City proposes to convert 500,000 sf of turf to ocean friendly gardens. While this may seem like a lofty goal, a GIS survey of the residential properties within the city revealed a typical single-family residential landscaped area of 3,000 square feet. Rebates will be limited to a maximum of 1,500 square feet; this may be adjusted to fit with the regional standard as set by the Metropolitan Water District of southern California.

Participants will be required to create landscape that include reasonable ground cover, plants, permeable surfaces limiting concrete and not allowing turf areas to be left as bare dirt. Participants will be required to agree to these as detailed in the terms and conditions in order to receive the rebate. The intent is to avoid property owners converting large turf areas to concrete and increasing runoff, and to also ensure removed turf is not left as bare dirt.

Participants will also have the opportunity to attend workshops and access free online resources to assist with the design, turf removal techniques, acceptable plants, and proper planting and drip irrigation techniques.

The water savings were calculated using the following formulas and assumptions:

Turf Removal:
28 gallons of water/SF saved
Turf water use: Total SF (500,000) x Eto(43) x 1 Plant factor (.8) x ,62 (convert to gal.)=10,664,000 gal.
Native plants: Total SF (500,000) x Eto (43) x 1 plant factor (.3 or less) x .62=3,999,000 gallons
10,664,000-3,999,000=6,665,000 gpy saved/325,851=20.45 AFY

b. High Efficiency Nozzles

High Efficiency Spray nozzles generate an estimated water savings of 37.9%. The City intends to offer customers free high efficiency sprinkler nozzles to replace their existing conventional nozzles. Residential customers will be permitted to receive up to 25 free nozzles.

This incentive is currently being offered by several water agencies and the voucher program is administered by Droplet Technologies. Customers will be directed to this website from the City's website and bill inserts to print their voucher to take to a local vendor to get their free nozzles. The FreeSprinkerNozzles.com website contains a wealth of information to assist customers with selecting the correct nozzle for their sprinkler systems as well as installation instructions, and will track who has received the vouchers. The vendors will invoice the City for the nozzles distributed to customers.

The City proposes to distribute up to 12,500 high efficiency nozzles.

The water savings were calculated using the following formulas and assumptions:

Low-Flow Sprinklers:
2 gpm per nozzle x 5,616 minutes/year =11,232 gpm per conventional nozzle (source: www.freesprinklernozzles.com)
Savings: 12,500 nozzles replaced x 11,232 x 0.38

c. Weather Based Irrigation Controller (WBIC) "Smart Controller"

Residential customers will be able to purchase discounted smart controllers directly from participating local vendors. These devices will automatically adjust irrigation schedules in response to changing weather conditions and use an ETo calculation to determine the amount of water needed to keep the plants healthy. Participants will be required to choose from an acceptable list of products that must be able to connect with the CIMMIS system or includes on onsite weather monitoring device. Participants may also opt to apply the discount to purchase soil moisture sensors.

For properties with more than an acre of irrigated area, incentives will be available on a per station basis.

The water savings were calculated using the following formulas and assumptions:

WBIC:
10% total water use per single-Family home (Residential WBICS: An Update About Costs and Savings, CUWCC March 2014 report)
Average Ventura single-family home uses 94,248 gallons per year

d. HE Clothes Washer Rebate

Residential customers will have the opportunity to get a rebate for the purchase of any HE clothes washer listed as Energy Star® Most Efficient.

The water savings were calculated using the following formulas and assumptions:

Clothes washers:
Standard washer 23 gallons
HE washer 15 gallons
35% savings
Avg. 300 washes annually
Source: www.energystar.gov

200 rebates x 8 gallons saved per rebate/wash load = 1600 gal. per load

1600 x 300 loads=480,000 gallons per year/325,851 = 1.47 AFY

WORK PLAN TASKS

Task 1: Direct Project Administration and Reporting:

Description: The City will implement and/or update agreements with consultants and vendors. Administrative, reporting, and invoicing tasks will be managed by City staff and a grants consultant.

a) Prepare and complete agreement with Droplet Technologies for inclusion in the Free Sprinkler Nozzle program.
b) Solicit proposals for third party administration for outdoor efficiency audits.
c) Award contract with third party administrator
d) Revise agreement with local irrigation suppliers and/or nurseries.
e) Develop terms and conditions for incentive participation

Deliverables:

- Agreement with Droplet Technologies
- Third Party Administrator agreement
- Incentive terms and conditions
- Progress Reports and Invoicing
- Draft and Final Project Report

Task 2: Project Implementation(s):

Description: Implement conservation incentive program.

a) Outreach to residential customers via website, mailers, and specifically contact customers with high water consumption rates.
b) Third Party Administrator conducts landscape surveys and provides property owners with efficiency plan.
c) Free nozzle replacement vouchers issued by Droplet Technologies to take to retailers for purchase.
d) Third Party Administrator pre- and post- installation verification of turf.
e) Distribute turf rebates.
f) Reimburse local retailers for sale of discounted smart controllers, moisture sensors, and low flow sprinkler nozzles.

Deliverables:

- Residential landscape efficiency reports from third party administrator
- Distribute Incentives to customers
    - 500,000 sqft of residential turf removed
    - 12,500 Low-Flow sprinkler nozzles distributed
    - 200 smart controller/moisture sensor distributed
    - 200 smart station controllers
    - 200 HE Clothes Washer Rebates

Task 3: Environmental Documentation:

This project does not meet the definition of a project under CEQA and is therefore exempt. NEPA is not applicable.

Deliverables:

- A Notice of Exemption, if determined to be required.

Task 4: Project Performance Monitoring Plan:
Description: Monitor participation and report participation and progress on a quarterly basis. Water savings will be monitored and calculated according to the rebate type.

a) Pre-Project Conditions, Baseline Data, Assumptions and Accuracy of Data
Review of pre-project conditions and baseline water usage data compared to the post-project conditions and water usage per incentive implemented.

b) Project Monitoring
Verification of installation of Turf Replacement prior to the issuance of rebate funds. Issuance of vouchers will be monitored by Droplet Technologies via their system. The quantity of rebates/devices/audits completed will be tracked according to the rebate type by City staff.

c) Project Evaluation
Report participation rates, calculate water, energy, and GHG emission savings, and customer feedback.

Deliverables:

- Quarterly Participation Data
- Annual Water Savings Data
- Total Project Evaluation
- Customer satisfaction results

Evaluation Criterion A: Water Conservation (28 points)

Subcriterion No. A.1: Quantifiable Water Savings
Up to 24 points may be allocated based on the quantifiable water savings expected as a result of the project.

Describe the amount of water saved.

Water Conservation Programs and Incentives	Description	Quantity	Unit	AFY	Lifetime AF Saved	Life Expectancy (yrs)
Turf Removal Rebate	A financial incentive of $2/square foot of turf removed.	500,000	Square Feet	20.45	204.54	10
WBIC	$200/controller, plus $35/ extra station	200	each	5.8	57.85	10
Low-flow Sprinklers	Voucher for 25/customer	12,500	each	163.73	1637.31	10
HE Clothes Washer Rebates	$75 rebate	200	each	1.47	20.62	14
Totals			$ 1,088,000	191.44	1,920.33	10

- **What is the applicant's average annual acre-feet of water supply?**

Supply/Source	2010 Urban Water Mgt. Plan	2015 Current Projected Supply
Casitas Municipal Water District	6000	4600
Ventura River @ Foster Park	4200	0-2000
Mound Groundwater Basin	4000	4000
Oxnard Plain Groundwater Basin	4100	3920
Santa Paula Groundwater Basin	1600	1600
Recycled Water	700	700^
Saticoy Well	1400	0*
Total	22000	14800

The City is currently projecting a deficit of more than 1,300 AF versus average demand.

- **Where is that water currently going (e.g., back to the stream, spilled at the end of the ditch, seeping into the ground, etc.)?**
The water targeted for conservation is used by customers; primarily residential customers. However, all customers classes may participate in the programs.

- **Where will the conserved water go?**

The conserved water will be used to reduce water drawn from whichever water supply source is most restricted or, when not experiencing drought condition, the water saved would be used to reduce water supplies drawn from the City's most expensive source of water—the Ventura River Watershed.

(1) Landscape Irrigation Measures:

Turf Removal - Ocean Friendly Garden Rebate Program

The goal for of this rebate activity is to yield long-term water savings as a result of converting the turf to low water, ocean friendly gardens. An initial search of high water users revealed 558 such customers that currently meet or exceed water use of 100 HCF per month; however, the City will not restrict any customer from participating in the rebate program. Upon award, the City will generate a list of the City's highest water consumers and make direct contact with the customers and offer the ocean friendly garden rebate program via phone calls, letters, and/or in person.

The City proposes to convert 500,000 sf of turf to ocean friendly gardens. While this may seem like a lofty goal, a GIS survey of the residential properties within the city revealed a typical single-family residential landscaped area of 3,000 square feet. Rebates will be limited to a maximum of 1,500 square feet; this may be adjusted to fit with the regional standard as set by the Metropolitan Water District of southern California.

Participants will be required to create landscape that include reasonable ground cover, plants, permeable surfaces limiting concrete and not allowing turf areas to be left as bare dirt. Participants will be required to agree to these as detailed in the terms and conditions in order to receive the rebate. The intent is to avoid property owners converting large turf areas to concrete and increasing runoff, and to also ensure removed turf is not left as bare dirt.

Participants will also have the opportunity to attend workshops and access free online resources to assist with the design, turf removal techniques, acceptable plants, and proper planting and drip irrigation techniques.

Pre- and Post -installation audits will be required of all participants. The Pre-installation audit will help customers identify areas to be converted, types of plants and ground cover, and terms and conditions will be reviewed. The customer must then provide the City with a simple site plan that indicates areas to be converted and plant palette. Once the customer's plan has been approved, funds will be allocated to that project and the customer will have up to 120 days to complete the installation. If the customer cannot complete the installation within this time, the customer may request additional time with cause.

The funds will not be dispersed until the turf removal has been verified. Verification will include, at a minimum, before and after photos and receipts for purchases. The City reserves the right to physically verify completion prior to the issuance of the rebate.

The water savings were calculated using the following formulas and assumptions:

Ventura County has an Eto factor of .43 and the turf grass a plant factor of .8. The program will required that participants replace their turf with plants having a factor of .3 or less. The plant palette is subject to the approval of the City via the third party administrator.

Turf Removal:
28 gallons of water/SF saved
Turf water use: Total SF (500,000) x Eto(43) x 1 Plant factor (.8) x ,62 (convert to gal.)=10,664,000 gal.
Native plants: Total SF (500,000) x Eto (43) x 1 plant factor (.3 or less) x .62=3,999,000 gallons
10,664,000-3,999,000=6,665,000 gpy saved/325,851=20.45 AFY

(a) Smart Irrigation Controllers and High-Efficiency Nozzles:

High Efficiency Nozzles
High Efficiency Spray nozzles generate an estimated water savings of 37.9%. The City intends to offer customers free high efficiency sprinkler nozzles to replace their existing conventional nozzles. Residential customers will be permitted to receive up to 25 free nozzles.

This incentive is currently being offered by several water agencies and the voucher program is administered by Droplet Technologies. Customers will be directed to this website from the City's website and bill inserts to print their voucher to take to a local vendor to get their free nozzles. The FreeSprinkerNozzles.com website contains a wealth of information to assist customers with selecting the correct nozzle for their sprinkler systems as well as installation instructions, and will track who has received the vouchers. The vendors will invoice the City for the nozzles distributed to customers.

The City proposes to distribute up to 12,500 high efficiency nozzles.

Droplet Technologies will provide the City with customer information for each participant along with their request for reimbursement for the cost of the nozzles. These data will be used to evaluate savings associated with this conservation measure.

Customers will be sent a survey questionnaire to verify installation and customer satisfaction.

The water savings were calculated using the following formulas and assumptions:

Low-Flow Sprinklers:
2 gpm per nozzle x 5,616 minutes/year =11,232 gpm per conventional nozzle (source: www.freesprinklernozzles.com)

Savings: 12,500 nozzles replaced x 11,232 x 0.38

Weather Based Irrigation Controller (WBIC) "Smart Controller"
Residential customers will be able to purchase discounted smart controllers directly from participating local vendors. These devices will automatically adjust irrigation schedules in response to changing weather conditions and use an ETo calculation to determine the amount of water needed to keep the plants healthy. Participants will be required to choose from an acceptable list of products that must be able to connect with the CIMMIS system or includes on onsite weather monitoring device. Participants may also opt to apply the discount to purchase soil moisture sensors.

For properties with more than an acre of irrigated area, incentives will be available on a per station basis.

The water savings were calculated using the following formulas and assumptions:

WBIC:
Water savings = 10% total water use per single-Family home[2]

Average Ventura single-family home uses 94,248 gallons per year

(2) **High-Efficiency Indoor Appliances and Fixtures:**

HE Clothes Washer Rebate
Residential customers will have the opportunity to get a rebate for the purchase of any HE clothes washer listed as Energy Star® Most Efficient.

Residents will be required to complete an application form and provide proof of purchase of a new, eligible HE Clothes Washer.

The rebate process will be coordinated with Southern California Edison and with the Southern California Gas Company to provide customers with a single point of access for receiving rebates under both the water and the utility programs.

Data received through the application process will be used to verify eligibility and proof of purchase. Water and energy savings calculations will be determined by established industry standard data and/or the energy utility in the case of energy savings estimates.

The water savings were calculated using the following formulas and assumptions:

Clothes washers:
Standard washer 23 gallons
HE washer 15 gallons

[2] Residential WBICS: An Update About Costs and Savings, CUWCC March 2014 report

35% savings
Avg. 300 washes annually
Source: www.energystar.gov

200 rebates x 8 gallons saved per rebate/wash load = 1600 gal. per load

1600 x 300 loads=480,000 gallons per year/325,851 = 1.47 AFY

Subcriterion No. A.2: Percentage of Total Supply

Provide the percentage of total water supply conserved: One percent

Estimated Amount of Water Conserved=191.44
Average Annual Water Supply = 14,100 (current project water supply less recycled water since recycled water is not being conserved or used before or after)

Evaluation Criterion B: Energy-Water Nexus (16 points)

Up to **16 points** may be awarded based on the extent to which the project increases the use of renewable energy or otherwise results in increased energy efficiency.

Subcriterion No. B.1: Implementing Renewable Energy Projects Related to Water Management and Delivery

Renewable energy is not included within the scope of this project.

Subcriterion No. B.2: Increasing Energy Efficiency in Water Management

Describe any energy efficiencies that are expected to result from implementation of the water conservation or water management project (e.g., reduced pumping).

The estimated energy savings for the proposed project is:

- 71,238 kWh per year for system savings attributed to avoided pumping, treatment and distribution.
- 43,916 kWh saved from conserved hot water heated by gas (40% savings over non-HE washer[3]

These savings were calculated using a DWR energy savings and GHG emission reduction for water conservation (see attachment 1).

[3] www.H2ouse.org

Evaluation Criterion C: Benefits to Endangered Species (12 points)

What is the relationship of the species to water supply?

As a river that supports federally endangered Southern California Steelhead, the Santa Clara River is a critical waterway for migrating steelhead. In addition, large numbers of the federally endangered tidewater goby inhabit the Estuary. Other fish found in the Estuary are arroyo chub, mosquitofish, green sunfish, California killifish, striped mullet, topsmelt, prickly scuplin, and fathead minnows (ENTRIX 1999; USFWS 1999). Downstream of Lake Casitas, the Ventura River and ecological resources are stressed due to low flows. The portion of the river downstream of the Highway 150 Bridge to Foster Park (reaches 3 and 4) has been listed by the US Environmental Protection Agency (EPA) as impaired due to water diversions and pumping.

Historically, steelhead were abundant in coastal mountains of Southern California, but now Southern California Steelhead are on the verge of extinction and have been federally-listed as an endangered species since 1987. The US EPA report on the Ventura River states:

> "...water quality problems related to eutrophication are compounded by low flow...Decreased summer flows and elevated nutrient concentrations in the Ventura River contribute to the excessive algal biomass growth, which in turn contributes to low DO conditions. Reducing nutrient loading, concurrent with maintaining or increasing existing river flow, are the most effective way to address eutrophication, which is the underlying cause of the impaired aquatic life beneficial uses in the Ventura River system...."

The extremely low precipitation over the last two years has further stressed steelhead populations. As noted by the National Marine Fisheries Service as part of their recent surveys, "It is unlikely that any anadromous adults were able to travel beyond the Ventura River estuary due to low flow conditions and subsequent barriers to migration.[4] In the absence of substantial high flow events, vegetation has become well established in the floodplain.

Primrose and watercress were most abundant, and formed dense cross-channel thickets that may have acted as further barriers to steelhead migration.

What is the extent to which the proposed project would reduce the likelihood of listing or would otherwise improve the status of the species?

Low flows in the rivers clearly have a negative impact on the steelhead populations. By improving the efficiency and management of groundwater and of water distribution (flow meter replacements), the City can avoid increasing its demands for water from the rivers and lakes and, during better hydrologic conditions, reduce the amount of water drawn

[4] Sam Bankston, Heidi Block and Chris Lima of the Pacific States Marine Fisheries Commission and California Department of Fish and Wildlife. 2014. Ventura River Watershed Spawner Surveys 2013.

from these resources; which would in turn play role in improving the riparian habitat. Given the fact that multiple communities rely on these water sources for some percentage of their supply, this project serves as one of the pieces or steps towards improving the status of the southern California Steelhead.

For projects that will directly accelerate the recovery of threatened or endangered species or address designated critical habitats, please include the following elements:

(1) **How is the species adversely affected by a Reclamation project?**

One of the major facilities of Reclamation's Ventura River Project is the Robles Diversion. In 2003 Reclamation authorized CMWD to construct a fish passage facility. The facility is in operation, but the CMWD biological opinion rules limit when diversion can take place. No diversions are allowed unless fish flows exceed 30 cubic feet per second. In 2005 the Ventura River and Ventura River Estuary were designated critical habitat for southern California Steelhead.

(2) **Is the species subject to a recovery plan or conservation plan under the ESA?**

In 2005 CMWD sued the federal government, claiming that restrictions to protect the steelhead limited their water rights. In early 2012, National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries) released a Recovery Plan for the southern California steelhead (Oncorhychus mykiss).

The Recovery Plan cites the need to:

- Improve stream flows
- Reduce diversions
- Remove physical impairments to fish passage
- Limit alterations to floodplains
- Limit sedimentation
- Limit urban and rural waste discharge to streams
- Repair and enhance estuarine habitat

(3) **What is the extent to which the proposed project would reduce the likelihood of listing or would otherwise improve the status of the species?**

Approximately 50 percent of water supplies available to the City are sourced from the Ventura River Watershed (including water purchased from Casitas Municipal Water District (CMWD) from Reclamation's Ventura River Project.

The Ventura River is habitat for the southern California Steelhead, a federally-listed endangered species. According to the NOAA Fisheries, the steelhead populations within the Southern California Steelhead Distinct Population Segment have experienced declines of 90% or more in the Ventura watershed. The principle threat to the viability of this species is water facilities and diversions.

The proposed project will reduce the impact on the steelhead by improving water

management and allow the City to utilize the Ventura River in a more environmentally sensitive manner.

It is estimated that the proposed project will conserve approximately 191.44 AFY; 50 percent of the City's water supply comes from Ventura River Watershed sources, therefore the proposed project will improve water management of our River.

Furthermore, the City has the right to extract more water than it is currently using. Improving water management reduces the potential need to increase water draws.

Evaluation Criterion D: Water Marketing (12 points)

Briefly describe any water marketing elements included in the proposed project. Include the following elements:

In 1999, the City became a signatory to the SWP Monterey Amendment Settlement Agreement, which allows the City and other SWP contractors to sell surplus allocated water back to the SWP pool of supplies. The Monterey Amendment Settlement Agreement to the SWP contracts in 1999 provided the City a formal mechanism to allow it to place its annual SWP water allocation into a "turn back" pool to the California Department of Water Resources (DWR) for purchase by other SWP contractors.

The City of Ventura, United Water Conservation District (United) and Casitas Municipal Water District (Casitas) together hold a 20,000 acre-foot Ventura County water entitlement to the State Water Project, while the City has the greatest share at 10,000 acre-feet of the total County entitlement. The City pays approximately $1,000,000 annually to the SWP for bond, operating and capital costs in order to maintain its entitlement, per the terms of the 75-year SWP contract. The City has taken part in the "turn back" pool over the past several years as well as entering into direct sale agreements of the City's entitlement to United, Casitas, and/or other parties, which has allowed the City to recoup a small part of its annual SWP payment obligation. These are limited to one or two-year terms, with the City re-evaluating water demands and supply annually to determine if and how much of the City's water entitlement will be sold or turned back to DWR.

For example, in 2013, the City entered into an agreement with United to purchase 1,890 AF of Ventura's 2013 water allocation by having the water released from Pyramid Lake into Piru Creek to flow into Lake Piru. This allowed United to extend its fall conservation release, thus bringing water to the Oxnard Plan groundwater basin for recharge purposes. This agreement expired in December of 2014.

The City will continue to make these agreements, as due to a lack of infrastructure to access the City's full SWP entitlement, while continuing to reduce water waste through better water management and conservation.

Evaluation Criterion E: Other Contributions to Water Supply

Sustainability (14 points)

Subcriterion E.1: Addressing Adaptation Strategies in a WaterSMART Basin Study
Up to **14 points** may be awarded for projects that address an adaptation strategy identified **in a completed WaterSMART Basin Study.**

The Bureau of Reclamation has not recently initiated or completed for the Ventura area watersheds; however, the Ventura Watershed has been studied by the U.S Bureau of Reclamation and the state of California with respect to water supplies, water quality, and environmental impacts including impacts to endangered and sensitive species. The information below provides an overview of the last study conducted by Reclamation.

In 1952, the formation of the Ventura River Municipal Water District (VRMWD, which later was renamed Casitas Municipal Water District CMWD in 1971) requested the U.S. Bureau of Reclamation make a water requirement and water supply study for western Ventura County. By March 1953, VRMWD and the Bureau of Reclamation entered into a cooperative investigation contract. By the fall of 1953, Bureau investigators completed reconnaissance-level studies to determine the approximate long-range water requirements, comparison of the merits of available dam sites, and determination of the river diversion and storage capacity required to meet the long-term water needs of the area (Bennett, 1967). The feasibility study also considered the recreational benefits that the project would have for the area.

The Reclamation's feasibility report recognized the need for water supply development, as stated in the following:

Page 6, "Development of an additional firm water supply is urgently needed in the Ventura River Project Area. Although the overall safe yields of the ground-water basins are approximately in balance with the amounts used, maldistribution of the use in relation to the supply now exists. Consequently, additional quantities are needed to serve some areas of insufficient ground-water storage capacity. This situation applies particularly to the developed lands lying around the edge of the Ojai Valley where wells went dry during the recent drought."
Page 7, "The City of Ventura is in critical need of additional water supplies under conditions of present development."
Page 8, "Ventura County is receiving more than its proportionate share of the present population growth of the State. This is due to its favorable location, agriculture, industrial, and commercial activities, and climatic and scenic attractions. This growth is expected to continue."

As an appendix to the feasibility report, the Reclamation developed operational studies for the Ventura River Project. In the Water Resources Appendix, the Reclamation describes the runoff characteristics of the Ventura River Basin as follows on Page 16: "Runoff from stream in the Ventura River Basin is derived almost entirely from rainfall, consequently exhibits the same monthly and seasonal variations as the rainfall. Since there is no

accumulation of snow in the watershed, all streams diminish fairly rapidly in flow at the conclusion of the rainfall season. Small summer flows are maintained in the upper reaches of the larger watersheds by springs. Following severe storms, discharge in the Ventura River has been known to increase in a few hours from practically no flow to a rate of thousands of cubic feet per second. Seasonal runoff has varied from a maximum in excess of 400 percent of the mean to a minimum of less than 5 percent of the mean."

In the Reclamation's determination of the Ventura River Project's safe yield (USBR 1954b), the Reclamation summarized its approach to the safe yield as follows: "In general, for smaller reservoirs the most intense drought is critical, while for larger reservoirs the drought with the greatest product of length times mean deficiency is critical. Reconnaissance studies indicated that for CMWD Reservoir at 250,000 acre-feet the greatest drought of record (length times mean deficiency) is critical."
The Ventura River Project received the support of many federal agencies and moved with a sense of urgency to be authorized by Congress, design, and completion of facility construction by 1959. The key elements of the Ventura River Project are Casitas Dam and Reservoir (Lake Casitas), the Robles Diversion and Canal on the Ventura River, and the water distribution system that consist of pipelines, pump plants, storage tanks and chlorination stations. Under a repayment Contract with the USBR, CMWD was assigned the responsibilities for the operation and maintenance of the Ventura River Project and the perpetual right to use all water that becomes available through the construction and operation of the Project, subject to the satisfaction of vested rights.

During the first 30 years of the Ventura River Project, Lake Casitas filled for the first time in 1978 and demands for water developed to full safe yield levels by 1990. The Project serves as a primary supply for many direct customers and as a supplemental, or backup supply, for groundwater users during times of drought.

- **Identify the specific WaterSMART Basin Study where this adaptation strategy was developed. Describe in detail the adaptation strategy that will be implemented through this WaterSMART Grant project, and how the proposed WaterSMART Grant project would help implement the adaptation strategy.**

There is no current WaterSMART Basin study adaption strategy.

Subcriterion E.2: Expediting Future On-Farm Irrigation Improvements
The proposed project does not include any future on-farm irrigation improvements.

Subcriterion E.3: Building Drought Resiliency

- Explain in detail the existing or recent drought conditions in the project area. Describe the severity and duration of drought conditions in the project area. Describe how the water source that is the focus of this project (river, aquifer, or other source of supply) is impacted by drought.

On January 17, 2014, California Governor Edmund G. Brown Jr. declared a State of Emergency and directed state officials to take all necessary actions to prepare for the drought conditions and called upon every Californian to conserve water. As water supplies continued to diminish, the Governor's office called on all water agencies to implement drought measures to reduce water demands and the Department of Water Resources reduced SWP allocations for southern California contractors to zero on January 31, 2014, and is now allocated at 5%. Water resources remain very low throughout the entire State today.

The State's residential water use has reduced by an average of 10% over 2013, with the Sacramento Region leading the charge with 25.6% residential savings while the South Coastal region is bringing up the rear with 5-10% residential savings[5]. The City of Ventura is located in the South Central Coast region and has reduced water consumption 7% from all user types.

The Ventura County Region is at risk of not meeting drinking water demands. The water for 70,000 people in western Ventura County is at risk due to drought. Water agencies that typically get all or part of their water from wells have had to start purchasing Lake Casitas water, as their wells have run dry. Since 2011, purchases of Lake Casitas water have increased by 1,000%. The lake is an important, but dwindling, resource threatened by both water supply and, subsequently, water quality concerns. For the first time since 1968, levels in Lake Casitas are expected to drop below 50% volume. Lower water levels in 1968 resulted in significant thermal stratification and anoxic (without dissolved oxygen) conditions, rendering the lake generally unsuitable for aquatic life. The low oxygen levels also created an environment where manganese and hydrogen sulfide, normally trapped in sediments, became soluble, causing the lake water to have a brown color and bitter metallic taste. There were also large blue-green algae blooms.[6] Normally creek inflows provide supply and facilitate lake mixing (which helps maintain good water quality). Inflows have significantly decreased since 2012, causing the lake to stratify and stagnate. Data from Casitas Municipal Water District indicate that the lower parts of the lake are already anoxic and the affected lake volume is expected to increase as drought continues. The Casitas water treatment plant does not have sufficient coagulation or sediment treatment processes to address anoxic lake conditions, and widespread algae blooms may result in Casitas not meting drinking water standards. The deteriorating conditions mean Lake Casitas, as a drinking water source, is threatened.[7]

Ventura River Basin groundwater wells are almost exclusively recharged from Ventura River flow. The basin is relatively shallow and responds quickly to rainfall or lack thereof. Due to the drought, the City of Ventura has lost 70% of its normal Ventura River supply. Due to low water levels in the Ventura River Basin, the wells operated by Meiners Oaks

[5] "State Water Board Reports Improvements in Urban Water Conservation Rates for November", January 6, 2015. www.ca.gov/Drought

[6] Casitas Municipal Water District. 2011. 2010 Urban Water Management Plan.

[7] Casitas MWD. 2013. Lake Casitas Water Quality Study. Prepared by Flow Science, Inc.

Water District have already gone dry and they are now entirely dependent on purchases of Lake Casitas water. Ventura River County Water District has only one if its four wells still in operation causing supplies to also be drawn from Lake Casitas.

Groundwater supplies curtailed in Southern Ventura County by Fox Canyon Groundwater Management Agency (GMA), which support agriculture, municipal, and industrial water use for a significant portion of the developed regions of Ventura County. [8] On April 11, 2014, the GMA adopted an emergency ordinance to prevent further seawater intrusion and to limit risk of subsidence. Groundwater from the Fox Canyon GMA area makes ups approximately 45% of supplies for the City of Ventura, as well as Oxnard, Port Hueneme, Camarillo, and Moorpark, and various adjacent unincorporated communities. Emergency Ordinance E effectively mandates reduced groundwater use; as of July 1, 2014, pumpers were to reduce extractions by 10% with required reductions increasing to 15% by January 1, 2015 and to 20% by July 1, 2015 if drought conditions continue.[9] Given the fact that as of the DWR most recent water supply report and the lack of rain in the foreseeable forecast, it would appear that drought will continue to persist.

- **Describe the impacts that are occurring now or are expected to occur as a result of drought conditions.**

Unlike most of southern California, Ventura County typically receives all of its imported water from the State Water Project (SWP). 30 Percent of the City's water supply originates from Lake Casitas during typical hydrologic conditions. However, with SWP allocations at an unprecedented low of 5% for 2014 and just recently the allocation was increased to 15% for 2015. Ventura County purveyors have been receiving about 30% of its imported water demands from the Colorado River supplies through non-routine system operations and a wheeling arrangement with the Los Angeles Department of Water and Power, which also represents the maximum allowance of such water (30%).

On September 22, 2014, the Ventura City Council declared a "Stage 3, Water Shortage Emergency" and implemented water waste prohibition that limits and reduces outdoor water use; restaurants are restricted from serving water to requests only; and enforcement actions for water wasting. The City also created a Water Shortage Task Force to provide community input as the City responds to the drought. The Task Force's primary goals were: 1) establish drought rates, 2) adopt a water shortage contingency plan, and 3) approve creation of a customer incentive program. All three recommendations will be going before the City Council for consideration in February 2015.

The lake level for Lake Casitas is currently 51.6%, according to the Casitas website on January 20, 2015. The 50% capacity level is a critical point at which the following additional water conservation measures will be automatically triggered:

[8] Fox Canyon GMA website. www.fcgma.org/about-fcgma . Accessed 1/20/15.

[9] Fox Canyon GMA. 2014. Emergency Ordinance E: An Emergency Ordinance Limiting Extractions from Groundwater, Suspending Use of Credits and Prohibiting Construction of Any Groundwater Extraction Facility.

- Establish a water allocation program based on historical uses of Casitas water or other fair and equitable bases, which will establish the amount of water that can be obtained by each customer, including other water agencies.
- Implement or adjust an increasing block rate structure for any classification of water service (i.e. impose a drought surcharge.)
- Require all water agencies taking water from Casitas to implement water conservation and restrictive water use measures.
- May direct the oil companies to cease taking any Casitas water for secondary oil recovery purposes or other non-life-sustaining purposes.
- May request the Ventura County Board of Supervisors and the cities of Ojai and Ventura to place a moratorium for all building permits, lot splits, or subdivisions within Casitas boundaries.[10]

It is not clear yet how the 50% lake level condition will impact the City specifically, as this is an unprecedented issue; however, it is expected that the City will be required to further reduce its withdrawal of water from the lake.

The most significant impact caused by the drought for the City of Ventura water supply is to the groundwater. As discussed previously, the depletion of groundwater from the Ventura River groundwater basin and the pumping restrictions of the GMA managed basin represents a significant concern for maintaining water supplies. The proposed project to improve the pumping efficiency and reduce water losses of 10-20% or 516 AFY will significantly benefit the City and improve the reliability for residents, businesses, and institutions. This project will also allow the City to monitoring pumping and flow rates and better manage water resources; something that is lacking currently.

Ventura County agricultural users receive 50,000 acre-feet of water annually from the groundwater managed by the GMA and are also required to comply with the Emergency Ordinance E mandated pumping reductions noted previously. Some agricultural users have been able to supplement with recycled water; however, the Ventura County Farm Bureau reports it is likely that famers will comply with pumping restrictions by having few crop rotations, and if dry conditions persist the risk of agricultural fallowing grows and there is an increasing potential for growers to permanently leave the region.[11]

The following table represents the quantity of water supply forecasted for the City in its 2010 Urban Water Management Plan and the revised amount of projected water supply quantities and sources as a result of the multi-year drought. The revised projected amount of water represents a significant drop in the available supply and when compared to the Water Demand by Customer Type table in Section 1.2, this projection shows a deficit of

[10] Casitas Municipal Water District Resolution proclaiming Drought Conditions adopted July 9, 2014.
[11] Watersheds Coalition of Ventura County personal communication with John Krist, Chief Executive Officer Ventura County Farm Bureau. May 2014.

1,335.42 acre-feet with respect to meeting the city's water demands.

Supply/Source	2010 Urban Water Mgt. Plan	2015 Projected Supply
Casitas Municipal Water District	6000	4600
Ventura River @ Foster Park	4200	0-2000
Mound Groundwater Basin	4000	4000
Oxnard Plain Groundwater Basin	4100	3920
Santa Paula Groundwater Basin	1600	1600
Recycled Water	700	700
Saticoy Well	1400	0*
Total	22000	14800

*Saticoy Well was taken out of service due to technical issues with pump design and water quality concerns caused by the drought.

- **Provide a detailed explanation of how the proposed WaterSMART Grant project will improve the reliability of water supplies during times of drought. Will the project improve the reliability of water supplies for people, agriculture, and/or the environment during times of drought?**

Other benefits associated with implementing water conservation measures include eliminating, downsizing, or postponing the need for capital projects, improving the utilization and extending the life of existing facilities, lowering variable operating costs, avoiding new source development costs, improving drought or emergency preparedness, educating customers about the value of water to create life long conservationists, improving reliability and margins of safe and dependable yields, and protecting and preserving environmental resources, which may ultimately also help to balance losses in revenue.

By reducing demand, you in turn reduce all the impacts associated with distributing water noted previously; which also creates long term reliability against drought and increases availability of that water for other purposes including storage.

Subcriterion E.4: Other Water Supply Sustainability Benefits

1. Will the project make water available to address a specific concern? For example: Will the project address water supply shortages due to climate variability and/or heightened competition for finite water supplies (e.g. population growth or drought)?

The proposed project is located in an area where water supply shortages are a current concern as a result of a multi-year, statewide drought. Furthermore, the pumping of the groundwater basins are managed and there are always concerns over the potential for overdrafting and/or groundwater levels falling below sea level and creating a threat seawater intrusion.

Investing in a customer based water conservation program provides long-term, sustainable savings. Other communities in the region have successfully implemented such programs; however, this will be the first time a program of this diversity and quantity will be offered to Ventura Water customers.

The drought has caused a heightened level of competition for water supplies for the communities of western Ventura County, as discussed. Prior to the drought, the City had more water supply volume than demand and was able to sell excess allocations to other SWP contractors, turn it back to DWR, and/or sell directly to private parties, in addition to building storage reserves in preparation for drought seasons. The first two years of the drought (beginning 2011), the City and many other communities were able to meet their demands without issuing water restrictions to customers. However, now that we are entering our fourth year of drought conditions and increasing severe conditions due to lesser and lesser rainfall, the City and other communities are facing real issues in meeting demands. The City has incurred overdraft fees for excess draws from Casitas as well. This project will help the City to reduce its demand on shared resources and will help the City to comply with current and potential upcoming curtailments.

2. **Will the project directly address a heightened competition for finite water supplies and over allocation?**

Yes. Reducing demand an estimated 191.44 acre-feet is the simplest and fastest method to lessen competition for finite water supplies. All of the water sources serving the City of Ventura are managed and shared (i.e. groundwater pumping is managed and river and allocations are managed). One water purveyor cannot just drill a new well when resources diminish, without approval and without impacting the available supply of water to other purveyors also drawing water from such supply. Furthermore, to draw more water than is allocated under these agreement means being charged excess fees for overdrafting, risk of litigation due to repeated overdrafting, and causing a reduction of water to other communities who also rely upon this finite water supply. Other parts of California (northern and central) do not have the same restrictions placed on them for groundwater and have therefore been able to drill new wells. So much so that it has raised concerns of overdrafting these in these areas. New wells are not an option during drought for the City.

Reducing demand is the fastest and most economical method of increasing and sustaining water supplies when faced with large capital costs, potential overdraft fees and litigation, and

3. **Describe how the water source that is the focus of this project is impacted by climate**

variation.

The Ventura River watershed, the smallest of Ventura County's three major watersheds, covers an area of about 227 square miles (144,970 acres). All of this land drains into the Ventura River, either directly or through creeks and tributaries, each of which has its own smaller drainage area called a subwatershed. Major tributaries include Matilija Creek, North Fork Matilija Creek, San Antonio Creek, and Canada Larga. The Ventura River watershed, like the county's other major watersheds—Santa Clara River and Calleguas Creek—ultimately drains to the Pacific Ocean.

The Ventura River watershed is a remarkable watershed for several reasons. Unlike most watersheds in southern California, no imported water is used; residents rely 100 percent on local water supplies. Lake Casitas, fed by diverted Ventura River water and Coyote Creek, is the primary supplier of water from the watershed. The City of Ventura also diverts surface and subsurface water from the Ventura River in the Foster Park area.

Groundwater, provided by individual wells or small water companies, is another important water source in the watershed, especially for farmers. Aquifers in the watershed tend to drain relatively quickly, but also recharge quickly with sufficient rain. However, with success drought years, the aquifers are not recharging causing the groundwater manager to restrict pumping and increasing reliance upon surface water (Lake Casitas and Ventura River water) and imported water sources.

The dramatic increase in reliance on Lake Casitas for water as a result of the climate is causing the lake to be depleted more quickly as more communities turn to this water source as their primary water supply.

4. **Will the project make additional water available for Native American tribes?**

No Native American tribes are served by the City.

5. **Will the project help to address an issue that could potentially result in an interruption to the water supply if unresolved?**

Given the current drought conditions and developing water supply and water quality concerns with Lake Casitas, potential for seawater intrusion into the groundwater wells and prescriptive pumping curtailments, this project has the immediate potential to increase the City's water supplies by 191.44 AF without drilling new wells or additional withdrawal from Lake Casitas. This serves as a significant benefit for the City of Ventura and a greater benefit for the region by allowing the City to reduce its reliance on imported water sources, thereby allowing DWR and other water agencies access to more water supplies.

All of the City's water sources are depleting and regulatory agencies implementing strict controls is having a significant impact on the City's water supplies.

Keeping more water in the Lake will help avoid water quality problems as well. As the City's allocations for all supply sources are curtailed and the storage is depleted, a long-term drought could result in severe water restrictions being levied. For example, the City

Council is seriously considering implementing a building moratorium to avoid increasing water demands on our community's and region's water supplies until such time as the drought is over. The reality of living in California, however, is droughts are frequent and communities must do everything they can BEFORE it is a critical problem. The City of Ventura is not anticipating an interruption to its water supply during the current year; however, we must be prudent and proactive in our planning and management of our water supplies now and for the future. Reducing demand through customer based conservation and better yet, through mindless conservation— i.e. water savings is not contingent upon behavior and intentional changes to one's daily habits of use; savings continue with little thought by customers once implemented—is the most efficient option.

6. **Will the project generally make more water available in the water basin where the proposed work is located?**

Yes, the proposed project is estimated to conserve over 191 AF annually, which would allow the City more flexibility in managing the groundwater basins and the Ventura River Watershed and will likely result in making more water available generally in the near and long term. One of the primary benefits of the proposed water conservation measures is, once implemented, they provide mindless savings; meaning, customers do not have to make an active choice to conserve water—they just do. Furthermore, water will continue to be conserved for the life of the conservation; many of which were noted conservatively. It has been well proven that water conservation works to create sustainable, long term water supplies that allow regions to grow and/or flourish. It is widely known that since the 1970s when conservation began, populations and boomed and doubled and even tripled in many locations resulting in great populations demanding water; however, per capita rates are lower due to the technological advices in water devices that allow people to go about their daily lives with primarily little thought to their water use. The proposed conservation measures require some upfront effort, but will yield long-term, mindless conservation and what we consider to be the key to making more water available in the region/basin.

This project, while seeming to yield moderate water savings as opposed to other types of projects, require no additional operations and maintenance costs for the city to manage, and frankly, minimal to no maintenance for customers. That is also a significant point to consider when evaluating costs.

7. **Does the project promote and encourage collaboration among parties?**

Yes. The success of the project is contingent upon the participation of residents/customers. They are our primary collaborators in reducing water consumption.

In addition to the customers/residents, the City will be working with local retailers to distribute the WBICs. The local retailers will invoice the City monthly (or other term interval agreed to) for the reimbursement of devices purchased by customers, up to the amount of the rebate.

The City will also work with Southern California Edison and the Southern California Gas

Company to provide customers a single point of access to receive rebates for the purchase of Energy Star® HE Clothes Washers. This will allow customers to maximize their rebate potential and increase participation rates.

8. **Will the proposed WaterSMART Grant project help to expedite future on farm irrigation improvements, including future on farm improvements that may be eligible for Natural Resources Conservation Service (NRCS) funding?**

No on-farm irrigation improvements are proposed.

9. **Will the project increase awareness of water and/or energy conservation and efficiency efforts?**

The City of Ventura has been actively educating the community about water conservation for a number of years now, through free workshops, direct replacement of showerheads, presentations and conservation kits at schools, and the City's website and new letter.

Ventura Water's education and outreach efforts promote and encourage collaboration among multiple stakeholders. Through the Water Shortage Task Force, our annual Water Take 1, our Water Wise Gardening classes and our partnerships with the local school district and non-profit organizations like Surfrider Foundation, the community has become more engaged and aware of their impacts to water demand. Ventura Water has over 25 major sponsors and many more local partners and engages thousands of people all over the world, highlighting our relationship with water, how we perceive it, use it and share it through their Water Take 1 annual film event.

More than 500 people have attended Water Wise Garden classes over the last year with topics covering: how to remove your lawn, how to convert spray to drip, how to install an Ocean Friendly Garden, how to amend your soil, etc.

Ventura Water provides a cash prize and beautiful award to a school each year that conserves water and educates their campus about our watersheds. In 2014, they recognized Will Rogers elementary school for replacing over 20,000 square feet of unused turf to a native habitat garden and installing the school district's first bioswale. In 2015, Loma Vista elementary school was recognized for their native plant garden and installation of a bioswale that receives water from the administration building. These projects reach thousands of families and have lasting impacts throughout the community.

These efforts will continue to be offered and the City will encourage rebate customers to participate in the workshop, etc.

Most people are unaware of the water-energy connection. Informational material will be updated to make customers aware of the energy savings they can also achieve personally (i.e. HE washer) and benefits to the community by avoiding rate increases caused by rising energy cost to treat and distribute water.....water saved is energy saved.

Working with the local retailers to distribute WBICs will also increase community awareness.

10. Will the project serve as an example of water and/or energy conservation and efficiency within a community?

Yes. Water and energy conservation efforts must be a diverse and simple in order to be effective and sustaining. Many other communities have led the way in helping the others to learn the value of water conservation. Many have forgotten the drought of the 1970s or weren't even born and yet these people are conserving water when compared to per capita use of that time (e.g. every time they flush their toilet and conserve 2-3 gallons per flush, or faucet aerators reducing water use 30-50%, and so on). These conservation measures will offer the same mindless conservation. We will appeal to customer's wallet by offering them cash incentives and discounts, not a new concept; however, teaching customers they can conserve water on a daily basis without thought and little effort through these conservation measures and that with additional intentional action and small changes they can achieve an even greater level of conservation. This will be offered through the educational outreach discussed above and during the water surveys and audits. This approach seeks to achieve conservation through a "walking hand-in-hand" to conserve water as opposed to regulated restriction. The restrictions will continue, however, we want the community to know we are here to help them conserve, not just restrict behavior. We are hopeful that long-term conservation will stem from education and customers realizing they can meet their water needs with less.

The 7% savings the City has achieved has been only with educational outreach.

11. Will the project increase the capability of future water conservation or energy efficiency efforts?

Yes. Since the 1970's it has been proven that customer based water conservation is sustainable and long lasting, especially when the conservation results from technological advances that allow customers to conserve without diminishing their experience (i.e. low flow toilets, sink aerators, hose spray nozzles). The conservation measures offered have been proven to save water and meet customer functional expectations.

12. Does the project integrate water and energy components?

Water conservation saves energy just by reducing the amount of water demand, thereby reducing energy costs associated with treatment and distribution as well as reduced decreased energy use through an estimated 40% reduction in hot water consumption for each HE clothes washer replaced. [12]

Evaluation Criterion F: Implementation and Results

Subcriteria No. F.1. – Project Planning. Does the project have a Water Conservation Plan, System Optimization Review (SOR), and/or district or geographic area drought contingency plans in place? Is the project part of a comprehensive water management plan (e.g., the Yakima River Basin Integrated Water Resource Management Plan)? Please self-certify, or provide copies of these plans where appropriate, to verify that such a plan is in place.

[12] www.H2ouse.org

Provide the following information regarding project planning:

1. Identify any district-wide, or system-wide, planning that provides support for the proposed project. This could include a Water Conservation Plan, SOR, or other planning efforts done to determine the priority of this project in relation to other potential projects.

   The City of Ventura's 2010 Urban Water Management Plan (UWMP) provides the framework to help guide Ventura's water supply management and conservation actions for the future. Ventura is a member of the California Urban Water Conservation Council (CUWCC), and as a result has committed to implementing the CUWCC's Best Management Practices as outlined in the 2008 Memorandum of Understanding (MOU). As an urban water supplier Ventura Water is also required to meet the State of California's water conservation requirements as outlined in Senate Bill 7 of Special Extended Session 7 (SBx7-7), a bill targeting a 20 percent reduction in urban water use by year 2020. Ventura's 2010 UWMP demonstrates that the City has effectively already met its CUWCC and SBx7-7 targets, and therefore plans to focus its efforts on ensuring that demand does not increase. The City plans to actively promote and expand its programs in order to keep its water use at the current levels.

2. Identify and describe any engineering or design work performed specifically in support of the proposed project.

   The City of Ventura has a Water Efficiency Plan (2011). This plan was developed by a Water Efficiency Task Force that included water, wastewater, and stormwater staff to evaluate various potential water efficiency programs that should be implemented within the next five years. Programs included in the plan were expansion of the recycled water system, public outreach, stormwater, customer conservation measures, and commodity rate pricing. This Plan sought to evaluate the BMPs as identified by the CUWCC and assign costs, identify estimated benefits, assign tasks to City departments/divisions, and a proposed schedule of implementation.

   The implementation of the proposed conservation measures was proposed for year 3, which would have been last year.

3. Describe how the project conforms to and meets the goals of any applicable State or regional water plans, and identify any aspect of the project that implements a feature of an existing water plan(s).

   In addition to Ventura's UWMP, this proposed project supports regional water use efficiency goals included in the 2006 Ventura County Integrated Regional Water Management Plan (IRWMP). The first objective included in the IRWMP is to *reduce dependence on imported water and protect, conserve and augment water supplies.* The proposed project is projected to conserve191.44 AF of water within the Ventura County IRWMP region.

Subcriteria No. F.2. – Readiness to Proceed.

Describe the implementation plan of the proposed project. Please include an estimated project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates. Please explain any permits that will be required, along with the process for obtaining such permits.

No permits are required to implement the proposed project.

Project Schedule

Task	Task Description	Start Date	End Date
1	**Direct Administration and Reporting**	**2/15/2015**	**10/1/2017**
	Solicit 3rd Party Administrator Services	2/15/2015	3/2/2015
	Award 3rd Party Administrator Contract	3/2/2015	3/30/2015
	Revise agreements with local retailers/nurseries	3/2/2015	3/30/2015
	Develop Terms and Conditions	1/15/2015	3/30/2015
	Progress Reports and Invoicings	4/1/2015	10/1/2017
2	**Project Implementation**	**4/1/2015**	**5/30/2017**
	Outreach	3/15/2015	5/30/2017
	Landscape Efficiency Surveys-3rd party	4/1/2015	4/1/2017
	Nozzle Voucher Distribution	4/1/2015	5/30/2017
	Turf installation verification-3rd party	6/1/2015	5/30/2017
	Distribute Turf Rebates	6/1/2015	1/31/2017
	Reimburse local retailers for devices	5/1/2015	5/30/2017
3	**Environmental Documentation**	**3/2/2015**	**3/30/2015**
	Notice of Exemption, if applicable.	3/2/2015	3/302015
4	**Project Performance Monitoring Plan:**	**6/1/2015**	**10/1/2017**
	Quarterly Participation Data Reports	6/1/2015	10/1/2017
	Annual Water Savings Reports	1/31/2016	1/31/2017
	Customer Satisfaction Results	1/31/2016	1/31/2017
	Total Project Evaluation	6/1/2017	10/1/2017

Subcriteria No. F.3. – Performance Measures.

The following performance measures will be implemented to quantify actual benefits upon completion of the project:

Pre-Project Conditions, Baseline Data, Assumptions and Accuracy of Data
The performance and project monitoring for this system proposal will include the review

of pre-project conditions and baseline water usage data compared to the post-project conditions and water usage per project implemented. Savings for properties implementing multiple incentives will be calculated in total savings and assumptions for individual incentive savings will be determined using industry data to determine the estimated quantity of savings per incentive.

Project Evaluation
The water savings of each project will be calculated according to project and summarized as total system savings. Conservation measures will be calculated using industry standard calculations. For verification purposes, a sampling of participant water consumption before and after implementation of the conservation measures will be completed. Water savings will be used to calculate energy and GHG emission reduced as a result of the project.

Progress will be tracked and results submitted at least quarterly, or as determined appropriate by Reclamation.

Incentive level Quantifiable Parameters

Turf Removal Incentive
Prior to the initial approval of a rebate, staff will review the information provided by the customer to verify eligibility and includes the review of the reports provided by the third party administrator. The Turf Removal incentive requires participants to participate in a landscape efficiency survey to be conducted by the selected third party administrator, complete a standard application form, provide a list of plants, and pre-project photos of the turf to be removed to obtain preliminary approval of a rebate. Distribution of the rebate funds will require that the participant complete the project within a specific period of time and provide post-installation photos.

Low-Flow Sprinkler Nozzles
Recipients will be required to participate in a landscape efficiency survey conducted by the selected third party administrator. The third party administrator will provide the property owner with the quantity and type of low-flow sprinkler nozzles needed. Recipients will then register and log into the Droplet Technologies website, www.freesprinklernozzles.com to submit customer verification data and receive their voucher and provided a list of participating vendors. Vendors will invoice the City for reimbursement of the cost of the nozzles. Participants may receive up to 25 free nozzles.

Weather-based Irrigation Controllers/Moisture Sensors
This incentive will serve as an instant rebate for customers purchasing from participating retailers. Residential customers must provide a copy of a water bill and complete a rebate form at the time of purchase in order to receive the rebate. The forms will be collected by retailers and submitted to the City for reimbursement of the devices. Customers will not be required to participate in a landscape efficiency survey prior to the purchase of the rebated device(s) however, they will be encourage to do so once the City is aware of their

purchase.

HE Clothes Washer Rebate
Residents seeking a rebate under the HE Clothes Washer Rebate program will be required to complete an application and submit copies of the purchase receipt. The appliance must be new and be listed as an Energy Star® Most Efficient clothes washer to qualify for the rebate. The application will include whether or not the customer's hot water is electric or gas. This information will be used to calculate the energy savings associated with the appliance.

The City will also coordinate this rebate offering with the local utilities as is currently required by California regulations. This offers a more streamlined approach and also makes customers aware of the fact that multiple rebates are available, which will likely increase levels of participation in the rebate offering.

Residential Water Audits
Third party administrator surveys will be promoted and available to all residential customers at no charge to the customers. These surveys will provide comprehensive efficiency reports to assist property owners in identifying individualized efficiency improvements for landscapes.

Performance Measures – Endangered Species
The proposed project will reduce the impact on the steelhead by improving water management and allow the City to utilize the Ventura River in a more environmentally sensitive manner. It is estimated that the proposed project will conserve approximately 191.44 AFY. 50 percent of the City's water supply comes from Ventura River Watershed sources, therefore the proposed project will improve water management of our River.

Reducing draws from the Ventura River will aid in the recovery of the steelhead by reducing the diversion of water from their habitat. Currently the City is not able to accurately monitor the amount of water diverted from the River; therefore, a more accurate accounting of water diverter will assist in the management of the River and the Salmonid recovery effort.

Additional Points

Cost Share: Ventura Water is proposing to provide a 75% cost share for the proposed project.

Non-Federal Funding	=	$ 895,202.65
Total Project Cost	=	$1,195,202.65

Criterion G: Connection to Reclamation Project Activities

1. How is the proposed project connected to Reclamation project activities?

As described previously, about 30 percent of Ventura water supplies come from Casitas Reservoir. Casitas Reservoir is a part of Reclamation's Ventura River Project. Water savings in the City of Ventura service area will result in reduced demand for Ventura River Project Water.

2. Does the applicant receive Reclamation project water?

Ventura receives 5,000 to 8,000 AFY of water from Lake Casitas formed under the Reclamation's Ventura River Project.

3. Is the project on Reclamation project lands or involving Reclamation facilities?

No, the proposed project will not be on Reclamation project lands or directly involve Reclamation facilities.

4. Is the project in the same basin as a Reclamation project or activity?

The proposed project is in the same basin as Reclamation's Ventura River Project.

5. Will the proposed work contribute water to a basin where a Reclamation project is located?

The proposed project will reduce demands for water in the Ventura River Basin. Some of the conservation savings will be realized as reduced demands on Ventura River Project water ultimately resulting in water savings within the Lake Casitas Reservoir.

Environmental Compliance

1. Will the project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)? Please briefly describe all earth disturbing work and any work that will affect the air, water, or animal habitat in the project area. Please also explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.

The proposed project is a government administrative program. Any ground disturbing activity will be limited to customers and will limited to landscaping.

2. Are you aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project?

The southern California Steelhead has critical habitat designated for the Ventura and Santa Clara River Watersheds. However, the proposed project is not likely to adversely affect the steelhead or any other species listed under the Federal Endangered Species Act. All of the proposed work will occur on existing water utility infrastructure. In fact, completing the proposed improvements may benefit these two watersheds and this endangered species by potentially reducing the City's water extractions.

3. Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as "waters of the United States?" If so, please describe and estimate any impacts the project may have.

Yes, there are surface waters and wetlands located inside the project boundaries that potentially fall under CWA jurisdiction as "waters of the United States". The Ventura River, Ventura River Estuary and the Santa Clara River Estuary are within the project boundaries. The proposed activities will not impact any of these waters, as the improvements are limited to the retrofit of existing pumping and pipeline infrastructure to improve efficiency and does not include an expansion or destruction of infrastructure and will not result in an increased draw from or discharge to these waters.

4. When was the water delivery system constructed?

The Spanish Fathers for the Mission San Buenaventura developed the first water system for the City. It consisted of an aqueduct (that is now abandoned) to convey water from the Ventura River, near San Antonio Creek, to a reservoir located behind the Mission. During subsequent development around the Mission, additional groundwater was obtained from wells in the Ventura and Santa Clara River basins. Water facilities were developed and operated for the City by several individuals and companies over the period of 1869 to 1923. In 1923, the City acquired the water system, along with its water rights from the Ventura River, from the Southern California Edison Company and assumed the responsibility of providing water to City residents. In years following, the City developed additional sources of surface and groundwater, including wells and improvements to the surface water diversion from the Ventura River. Also, since 1960, the City has purchased surface water from Casitas Municipal Water District to supplement its water supplies. As development occurs on the east side of the City, additional groundwater facilities have been completed to meet increasing demands.

5. Will the project result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)? If so, state when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously.

No modifications are being made to an irrigation system.

6. Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places? A cultural resources specialist at your local Reclamation office or the State Historic Preservation Office can assist in answering this question.

No buildings, structures, or features associated with the proposed project are listed or eligible for listing on the National Register of Historic Places.

7. Are there any known archeological sites in the proposed project area?

There are no known archeological sites that would be affected by the proposed project.

8. **Will the project have a disproportionately high and adverse effect on low income or minority populations?**

The proposed project will have no impact on low or minority populations. The proposed improvements are intended to offer customer incentives to help them achieve water savings.

The project could actually benefit all populations, with the greatest benefit to low/fixed income or minority populations, by improving water management and reducing losses, which reduces the need for the City to seek more expensive imported water supplies and increase water rates.

9. Will the project limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands?

The proposed project will not limit access to or ceremonial use of Indian sacred sites or result in other impacts on tribal lands as the infrastructure to be improved are not located within such areas.

10. Will the project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?

No, the replacement of well pumps and motors, and production meters will not contribute to the introduction, continued existence, or spread of, noxious weeds or non-native invasive species.

11. Required Permits and Approvals

No permits or approvals are anticipated for the proposed project.

Official Resolution

Ventura City Council approved a resolution on February 6, 2013 authorizing the general manager to submit a grant application to and execute a Cooperative Agreement with Reclamation for implementation of the proposed project. The resolution agrees to use the funds identified in this funding plan for the proposed project. The official resolution provided in Appendix A.

Project Budget

Funding Plan and Letters of Commitment

All non-Reclamation funds will be provided by the City of Ventura. These funds will consist of in-kind costs for project management and monetary contributions from water revenues and/or municipal bond sales. Additional cost share will be contributed to the project by customers participating in the program and while this information will be reported, it is to variable to estimate for the purposes of this proposal.

State funds have also been sought under the DWR Water-Energy Grant Program.

Cost Share: Ventura Water is proposing to provide a 75% cost share for the proposed project.

Budget Table 1: Summary of non-Federal and Federal sources

Funding Sources	Funding Amount
Non-Federal Entities: Ventura Water (City of Ventura)	$ 867,701
Ventura Water –In Kind Direct Labor	$ 28,192.65
Non-Federal Entities Subtotal	$ 895,202.65
Other Federal Entities:	0
Requested Reclamation Funding	$ 300,000
Total Project Funding:	$ 1,195,202.65

*In-kind project management/grant administration costs.

Budget Proposal

Budget Table 1: Funding Sources

Funding Sources	Percent of Total Project Cost	Funding Amount
Recipient Funding	75%	$895,202.95
Requested Reclamation Funding	25 %	$300,000
Other Federal Funding	0	0
Total Project Funding:	100%	$ 1,195,202.65

Budget Table 2: Budget Estimate				
Budget Item Description	COMPUTATION			TOTAL COST
	$/Unit	Quantity	Quantity Type (hours/days)	
Salaries And Wages				
Assistant GM	72.87	20	hrs	$1,457.40
Environmental Specialist	40.29	581	hrs	$23,408.49
Asst. City Atty. II	67.66	16	hrs	$1,082.56
Accountant	46.40	30	hrs	$1,392.00
General Mgr.	85.22	10	hrs	$852.20
Fringe Benefits				
Not included				
Travel				
None	0			$ -
Equipment				
None	0			$ -
Supplies/Materials				
None				
Contractual/Conservation				
Third Party Administrator	75,110	1	Lump	$75,110.00
Grant Management Support	$ 90.00	40	hourly	$3,600.00
Turf Rebates	2	500000	sq ft	$1,000,000.00
Low-Flow Sprinkler Nozzles	4	12500	each	$50,000.00
Weather Based Irrigation Controllers/Moisture Sensors	80	200	each	$16,000.00
Smart Station Controllers	35	200	each	$7,000.00
HE Clothes Washer Rebates	75	200	each	15000
Other				
Reclamation Environmental Review	1	300		$300.00
Total Direct Costs				$1,195,202.65

Budget Narrative

The budget table is divided into the following categories and sub-categories described in detail in this section:

Salaries and Wages
Project Manager
Jill Santos, Environmental Specialist.
Responsibilities: day-to-day project management, rebate approval, and grant management.

The amount for the grant reporting and general grant administration was based on completing four (4) quarterly progress reports, at least quarterly requests for funding, the preparation of a final report and potential interim communications regarding the grant both internally and with Reclamation. The assumption is the quarterly progress reports will take between 5 to 8 hours to complete and a final report will take an additional 10 to 15 hours to complete, and the financial requests and project accounting will take approximately 8 hours per quarter.

Executive Oversight and supervisor
Joe McDermott, Assistant General Manager
Responsible for contract procurement with third party administrator, local retailers/nurseries, etc.

Legal
TBD, Assistant City Attorney II
Responsible for the legal review of the agreements and final terms and conditions of the rebate offerings.

Authorized Representative
Shana Epstein, General Manager

Ms. Epstein or her designee, will serve as the authorized representative for the project to execute agreement.

Fringe Benefits

City of Ventura staff hourly unit rates described in the budget includes the base rate, no fringe benefits. The fringe benefits include holiday, sick pay, vacation, medical, dental, vision, and CalPers and are determined based on job classification. The fringe benefits range from 31% to nearly 47% of the employees base rate.

Staff wages are included as an in-kind cost. Fringe benefit costs are not included in this amount.

Travel

Not included in this program budget.

Equipment

No Equipment costs.

Materials and Supplies

None

Contractual/Conservation Program

Third Party Administrator (TBD)

Responsible for conducting residential water surveys/audit pre- and post- installation of turf removal and provide customers with estimated water savings. Also responsible for validating completion of installation and report to the City for issuance of rebates.

Based on feedback from other agencies who use this service, it is estimated that the cost ranges between 5%-7% of a conservation program's budget.

Sylvir Consulting, Inc.

Provide on-call grant management assistance on an "as needed" basis. The City currently has an agreement in place with this consultant to provide on-call grant writing and management services on a task order basis. This consultant may be used to assist the City staff with any aspect of the tasks required to comply with the grant should staff need assistance. The rate for this service is $90/hour.

Rebates plan to be offered as follows; however, if actual participation rates in each rebate type may vary:

Water Conservation Programs and Incentives	Description	Quantity	Unit	Cost
Residential Turf Removal/Replacement Rebate	A financial incentive of $2/square foot of turf removed.	500,000	Square Feet	$ 1,000,000
WBIC	$200/controller, plus $35/ extra station	200	Each	$ 23,000
Low-flow Sprinklers	Voucher for 25/customer	12,500	each	$ 50,000
HE Clothes Washer Rebates	$75 rebate	200	each	$ 15,000
Totals				$ 1,088,000

Environmental and Regulatory Compliance Costs

Costs under this category are limited to costs incurred by Reclamation to determine the level of environmental compliance required for the project.

It is anticipated that the proposed scope of work qualifies for a categorical exemption.

Reporting

Reporting will be handled in house by the Environmental Specialist as noted above.

Other
No other costs are expected or included in the proposed budget.

Indirect Costs
No indirect costs are included in the budget.

Contingency Costs
None have been included.

Total Costs

Funding Sources	Funding Amount
Non-Federal Entities: Ventura Water (City of Ventura)	$ 851,171
Ventura Water –In Kind Direct Labor	$ 26,735
Non-Federal Entities Subtotal	$ 878,171
Other Federal Entities:	0
Requested Reclamation Funding	$ 300,000
Total Project Funding:	$ 1,178,445

The City has also applied for a grant from the California Department of Water Resources to fund a similar program, with the exception of the HE Clothes Washer rebates. In the event that a grant is awarded, the City will use those funds to fund a portion of the City's match and to also increase the number of rebates offered.

References

City of Ventura, Ventura Water. June 2011. *2010 Urban Water Management Plan.* http://www.cityofventura.net/files/file/Final%20UWMP%208-23-11.pdf

City of San Buenaventura, March 2011. Water Master Plan.

Watersheds Coalition of Ventura County. 2006. *Integrated Regional Water Management Plan.* http://portal.countyofventura.org/portal/page/portal/ceo/divisions/ira/WC/Library/IRWMP_Document

Energy Efficiency Analysis, Southern California Edison, September 2012.

Southern California Steelhead Recovery Plan Summary, NOAA's National Marin Fisheries Services Southwest Regional Office. , accessed 1/18/14 http://www.westcoast.fisheries.noaa.gov/publications/recovery_planning/salmon_steelhead/domains/south_central_southern_california/southern_california_steelhead_recovery_plan_executive_summary_012712.pdf

ATTACHMENT 1: CALIFORNIA DEPT. OF WATER RESOURCES ENERGY SAVINGS CALCULATIONS

Attachment 1

Within System (lifetime)		
System Water Savings:	529.342	MG/$M
System, End-Use & EE/RE Savings:	977,168	kWh/$M
System, End-Use & EE/RE GHG Emission Reductions:	235,509	kg CO_2e/$M

Grand Total (lifetime)		
Water Savings:	623.800	MG
Energy Savings:	1,151,539	kWh
GHG Emissions Reduction:	277,534	kg CO_2e

System Summary

	Total Project Cost	Water Savings		Energy Savings		GHG Reduction	
		Annual	Lifetime	Annual	Lifetime	Annual	Lifetime
Project 1	$ 1,178,445	62.380 MG/year	623.800 MG	71,238 kWh/year	712,380 kWh	19,804 kg CO_2e/year	198,042 kg CO_2e
Project 2	$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 3	$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 4	$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 5	$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 6	$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 7	$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 8	$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 9	$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 10	$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Total	**$ 1,178,445**	**62.380 MG/year**	**623.800 MG**	**71,238 kWh/year**	**712,380 kWh**	**19,804 kg CO_2e/year**	**198,042 kg CO_2e**

Imported Water Summary

	Energy Savings		GHG Reduction	
	Annual	Lifetime	Annual	Lifetime
Project 1	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 2	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 3	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 4	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 5	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 6	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 7	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 8	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 9	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 10	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Total	**0 kWh/year**	**0 kWh**	**0 kg CO_2e/year**	**0 kg CO_2e**

Hot Water Heating System Summary

	Energy Savings		GHG Reduction	
	Annual	Lifetime	Annual	Lifetime
Project 1	43,916 kWh/year	439,159 kWh	7,949 kg CO_2e/year	79,493 kg CO_2e
Project 2	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 3	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 4	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 5	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e

Project 6	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 7	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 8	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 9	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 10	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Total	**43,916 kWh/year**	**439,159 kWh**	**7,949 kg CO_2e/year**	**79,493 kg CO_2e**

Energy Efficiency and Renewable Energy (EE/RE) Summary

	Energy Savings		GHG Reduction	
	Annual	Lifetime	Annual	Lifetime
Project 1	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 2	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 3	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 4	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 5	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 6	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 7	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 8	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 9	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 10	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Total	**0 kWh/year**	**0 kWh**	**0 kg CO_2e/year**	**0 kg CO_2e**

Total System Summary (System + Water Heating + EE/RE)

	Water Savings		Energy Savings		GHG Reduction	
	Annual	Lifetime	Annual	Lifetime	Annual	Lifetime
Project 1	62.380 MG/year	623.800 MG	115,154 kWh/year	1,151,539 kWh	27,753 kg CO_2e/year	277,534 kg CO_2e
Project 2	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 3	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 4	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 5	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 6	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 7	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 8	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 9	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 10	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Total	**62.380 MG/year**	**623.800 MG**	**115,154 kWh/year**	**1,151,539 kWh**	**27,753 kg CO_2e/year**	**277,534 kg CO_2e**

Combined Summary (System + Imports + Water Heating + EE/RE)

	Water Savings		Energy Savings		GHG Reduction	
	Annual	Lifetime	Annual	Lifetime	Annual	Lifetime
Project 1	62.380 MG/year	623.800 MG	115,154 kWh/year	1,151,539 kWh	27,753 kg CO_2e/year	277,534 kg CO_2e
Project 2	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 3	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 4	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 5	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 6	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e

Project 7	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 8	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 9	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 10	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Total	**62.380 MG/year**	**623.800 MG**	**115,154 kWh/year**	**1,151,539 kWh**	**27,753 kg CO_2e/year**	**277,534 kg CO_2e**

Attachment 1

Estimate of Water Savings, Energy Savings, and GHG Emissions Reduction

Project Name: **Ventura WaterWise Landscape Efficiency Incentive Program**
Total Project Cost: **$1,178,445**

Project Assumptions		
Step 1: Enter the baseline (pre-project) volume of water associated with the project	**9924**	MG/year
Step 2: Enter the volume of water that will be delivered after the project is implemented.	**9861.62**	MG/year
Step 3: Enter the volume of hot water saved from the project's electric water heating system (the summation of step 3 and step 4 must not exceed annual volume of water savings). If not applicable, enter "0".	**0**	MG/year
Step 4: Enter the volume of hot water saved from the project's natural gas water heating system (the summation of step 3 and step 4 must not exceed annual volume of water savings). If not applicable, enter "0".	**0.19**	MG/year
Step 5: Enter the useful life in years for the project	**10**	years
Step 6: Enter the percentage of water that is imported	**0%**	
Step 7: Enter the Energy Intensity (EI) of the System associated with the project's water savings	**1142**	kWh/MG
Step 8: Enter the total output emission rate specific to the power supplier or use the default value of 0.278	**0.278**	kg CO_2e/kWh
Step 9: Enter EI associated with the Supply and Conveyance segment of the imported water or enter "0" if imported water is not applicable	**0**	kWh/MG
Step 10: Enter any additional annual energy savings from energy efficiency and renewable energy (EE/RE), etc.	**0**	kWh/year

Note: on a separate sheet provide the basis for the estimates and information sources for factors entered

Note: values below are determined from the above Project Assumptions		Units
Water Savings		
1) Annual volume of water savings within System	62.38	MG/year
2) Annual volume of imported water savings	0	MG/year
3) Annual volume of hot water heating system savings	0.19	MG/year
4) Lifetime volume of water savings within System	623.8	MG
5) Lifetime volume of imported water savings	0	MG
6) Lifetime volume of hot water heating system savings	1.9	MG
Energy Savings		
1) Annual energy savings within System	71,238	kWh/year
2) Annual energy savings from imported water	0	kWh/year
3) Annual energy savings from electric hot water heating system	0	kWh/year
4) Annual energy savings from natural gas hot water heating system (used to calculate total energy saving)	43,916	kWh/year
5) Total annual energy savings from electric and natural gas hot water heating systems	43,916	kWh/year
6) Annual energy savings from natural gas hot water heating system (used to calculate GHG emmission)	1,500	therms/year
7) Lifetime energy savings within System	712,380	kWh
8) Lifetime energy savings from imported water	0	kWh
9) Lifetime energy savings from electric hot water heating system	0	kWh
10) Lifetime energy savings from natural gas hot water heating system	439,159	kWh
11) Total lifetime energy savings from electric and natural gas hot water heating systems	439,159	kWh
12) Lifetime energy savings from natural gas water heating system	14,999	therms
13) Additional lifetime energy savings from Energy Efficiency and Renewable Energy (EE/RE), etc.	0	kWh

GHG Emission Reductions		
1) Annual GHG emission reductions within System	19,804	kg CO_2e/year
2) Annual imported GHG emission reductions	0	kg CO_2e/year
3) Annual GHG emission reductions from electric hot water heating	0	kg CO_2e/year
4) Annual GHG emission reductions from natural gas hot water heating system	7,949	kg CO_2e/year
5) Total annual GHG reductions from electric and natural gas hot water heating system	7,949	kg CO_2e/year
6) Lifetime GHG emission reductions within System	198,042	kg CO_2e
7) Lifetime GHG emission reductions from imported water	0	kg CO_2e
8) Lifetime GHG emission reductions from electric heating system	0	kg CO_2e
9) Lifetime GHG emission reductions from natural gas water heating system	79,493	kg CO_2e
10) Total lifetime GHG emission reductions from electric and natural gas hot water heating systems	79,493	kg CO_2e
11) Additional annual GHG emission reductions from Energy Efficiency and Renewable Energy (EE/RE), etc.	0	kg CO_2e/year
12) Additional lifetime GHG emission reductions from Energy Efficiency and Renewable Energy (EE/RE), etc.	0	kg CO_2e
Project Summary		
Total annual water savings	62.38	MG/year
Total lifetime water savings	623.8	MG
Total annual energy savings	115,154	kWh/year
Total lifetime energy savings	1,151,539	kWh
Total annual GHG emission reductions	27,753	kg CO_2e/year
Total lifetime GHG emission reductions	277,534	kg CO_2e

APPENDIX A

Resolution to Execute Cooperative Agreement with the United States Bureau of Reclamation.

STATE OF CALIFORNIA)
)
COUNTY OF VENTURA) ss.
)
CITY OF SAN BUENAVENTURA)

I, Elaine M. Preston, Deputy City Clerk of the City of San Buenaventura, do hereby certify that the attached is a true and correct copy of Resolution No. 2013-002, Authorizing the Ventura Water General Manager to apply for, receive, and appropriate grant funds from the Bureau of Reclamation WaterSMART Water and Energy Efficiency Grants. IN WITNESS WHEREOF, I have hereunto set my hand and caused the official seal of said City to be affixed on February 5, 2013.

Elaine M. Preston, CMC
Deputy City Clerk

CITY OF SAN BUENAVENTURA
1866
EUREKA
1905
CALIFORNIA

RESOLUTION NO. 2013- 002

A RESOLUTION OF THE COUNCIL OF THE CITY OF SAN BUENAVENTURA AUTHORIZING THE VENTURA WATER GENERAL MANAGER TO APPLY FOR, RECEIVE, AND APPROPRIATE GRANT FUNDS FROM THE BUREAU OF RECLAMATION WATERSMART WATER AND ENERGY EFFICIENCY GRANTS

BE IT RESOLVED, by the Council of the City of San Buenaventura as follows:

SECTION 1: The General Manager of Ventura Water, or his/her designee, is hereby authorized and directed to sign and file, for and on behalf of the City, a WaterSMART Water and Energy Grant Application for Funding Group 1, for a grant from the United States Bureau of Reclamation in the amount not to exceed $300,000 for well pump and motor and production meter replacement.

SECTION 2: The Ventura Water General Manager, or his/her designee, is hereby authorized to acknowledge and approve of the application and the information submitted for consideration, and is further authorized to certify that the City of San Buenaventura has and will provide the amount of funding and/or in-kind contributions specified in the funding plan.

SECTION 3: The Ventura Water General Manager, or his/her designee, on behalf of the City of San Buenaventura is hereby authorized to negotiate and execute a grant contract and any amendments or change orders thereto and further agrees to work with the U.S. Bureau of Reclamation to meet established deadlines for entering into a cooperative agreement.

SECTION 4: This Resolution will take effect immediately upon adoption.

PASSED AND ADOPTED this 4th day of February, 2013.

Cynthia M. Rodriguez, CMC
City Clerk

APPROVED AS TO FORM

By: _____
Ariel Pierre Calonne
City Attorney

STATE OF CALIFORNIA)
COUNTY OF VENTURA) ss
CITY OF SAN BUENAVENTURA)

I, Elaine M. Preston, Deputy City Clerk of the City of San Buenaventura, California, certify that the foregoing Resolution was passed and adopted by the City Council of the City of San Buenaventura at a regular meeting on February 4, 2013, by the following vote:

AYES: Councilmembers Brennan, Weir, Morehouse, Andrews, Monahan, Deputy Mayor Heitmann, and Mayor Tracy.

NOES: None.

ABSENT: None.

IN WITNESS WHEREOF, I have set my hand and affixed the seal of the City of San Buenaventura on February 5, 2013.

Deputy City Clerk

CITY OF SAN BUENAVENTURA
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