Project Manager
Jonathan Daly
General Manager
Telephone: (951) 736-2477
Facsimile: (951) 735-3786
Email:
jonathan.daly@ci.corona.ca.us

Project Supporters

Supervisor John Tavaglione

Western Municipal Water District

Santa Ana Watershed Project Authority

Corona Chamber of Commerce

City of Corona

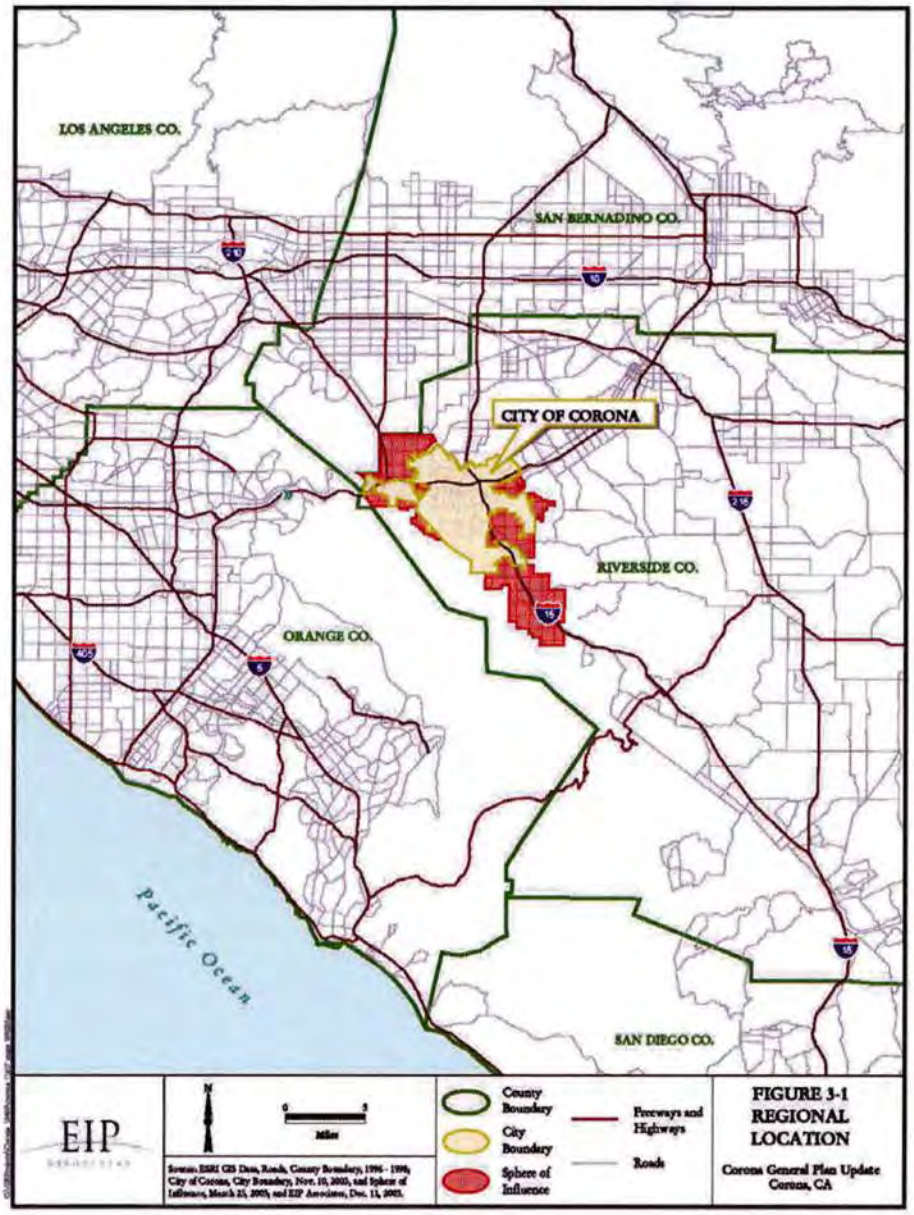
Advanced Metering Infrastructure Program

Water SMART: Water and Energy Efficiency Grants for Fiscal Year 2012

PREPARED FOR:
Bureau of Reclamation
Financial Assistance Services
ATTN: Michelle Maher
Mail Code: 84-27810
P.O. Box 84-27850
Denver, CO 80225
(303) 445-2025

PREPARED BY:
City of Corona
400 South Vicentia Avenue
Corona, CA 92882

January 19, 2012



The City of Corona City Council approved the application for the WaterSMART: Water and Energy Efficiency Grant Program January 4, 2012.

Eugene Montanez, Mayor
Jason Scott, Mayor Pro Tem • Steve Nolan, Council Member
Stan Skipworth, Council Member • Karen Spiegel, Council Member

Brad Robbins, City Manager

Table of Contents

SECTION 1: TECHNICAL PROPOSAL

Technical Proposal and Evaluation Criteria

The technical proposal and evaluation criteria ***(50 pages maximum)*** includes: (1) the Executive Summary, (2) Background Data, (3) Technical Project Description and (4) Evaluation Criteria.

(1) Technical Proposal: Executive Summary

Date:	January 19, 2012
Applicant Name:	City of Corona
City:	Corona
County:	Riverside County
State:	California

Project Summary:

The Advanced Metering Infrastructure Project (AMI) will assist the City of Corona in improving its water management practices by converting 5,560 outdated meters into "smart" meters with advanced metering technology capabilities. This will include 4,807 residential accounts, 341 commercial accounts, and 412 landscape accounts. The project will help the City conserve water and better manage its water losses by providing the technology necessary to mitigate leaks through real-time meter reading capabilities. Over 92% of the meters in the proposed south Corona AMI service territory are more than a decade old, have surpassed their useful life, and have diminished capabilities to accurately meter or report water usage. This leads to undetected leaks and unaccounted for water usage and loss, and is costly for the City. It is estimated that currently over 95% of the City of Corona's water losses are due to unpreventable water leaks. The AMI project will help the City mitigate these losses in a timely and efficient manner with 24/7 monitoring and alert capabilities. This will result in conservation of the region's precious water resources. Corona water customers will also benefit from AMI technology by having safe and secure, on-demand access to their water usage through a specially designed AMI customer portal. This is especially helpful for large commercial and landscape clients who tend to have higher usage rates and higher bills as a result. This level of monitoring will allow for usage adjustments during peak times. The project is well aligned with Bureau of Reclamation's (BOR) overarching goals to manage, develop and protect water and other resources in an environmentally and economically sound manner. The project addresses each of the following **Tasks Areas**:

Task Area A: Water Conservation and Improved Water Management: The AMI project will conserve approximately 592 acre feet per year (AFY) of water for the City of Corona. This is estimated based on a 10% reduction in actual 2010 water usage for the project area defined by the City in the south Corona area.

Task B: Energy Water Nexus: The AMI project will help improve the efficiency of water management by helping to reduce the use of groundwater supplies that are in overdraft and helping reduce the City's 50% annual imported water usage from the California State Water Supply and Colorado River Water.

The State of California is currently working diligently to encourage cities to use local water resources rather than relying on imported water sources. This is because it is estimated to take more than 3,000 kWh of energy to pump just one acre foot of water over the mountain ranges and into Southern California. The AMI project will help reduce reliance on State Water Supply resources and in turn help reduce the City's burden on the State-wide water-energy nexus.

Task C: Benefits to Endangered Species: The AMI project will help reduce the City's reliance on State Water Supply resources and as a result the City will purchase less water and rely more on local water resources. This will help contribute to the protection of endangered species in the Bay Delta Estuary such as the Delta Smelt that are endangered due to the effects of drought and the powerful demand on the pumps to carry State Water Supply water to customers throughout the State. It will also help protect four endangered species in the Colorado River Aqueduct.

Task D: Water Marketing: The project will provide access to data that will assist the City in identifying the need for new water markets through the use of advanced metered capabilities. With this "smart" metering technology, the City will be able to chart potential users for things such as reclaimed water that will later translate into new water markets in the future. This is significant due to the large sized commercial and landscape clients that are located in the AMI project service area that would have the potential to further net significant water savings through the use of reclaimed water.

The requested funds ($300,000) comprises 22% percent of the $1,359,610 million total project cost and will provide the resources needed to assist the City of Corona with implementing the AMI project. This project is an important first step in a 5-year, City-wide goal to have AMI smart meters installed throughout the entire City by 2017. The project construction schedule will take less than 18 months, start to finish, with metering installation beginning in 2012 and all work completed by November 2013.

(2) Technical Proposal: Background Data

Provide a map of the area showing the geographic location (include the State, county, and direction from nearest town). As applicable, describe the source of water supply, the water rights involved, current water uses (i.e., agricultural, municipal, domestic, or industrial), the number of water users served, and the current and projected water demand. Also, identify potential shortfalls in water supply. For municipal systems, please include the number of connections and/or number of water users served and any other relevant information.

The City of Corona is located approximately 45 miles southeast of Los Angeles in western Riverside County. The City of Corona is the "gateway to the Inland Empire" given its close proximity to Orange County and Los Angeles, California. The City limits encompass 39.2 square miles and have an abundance of housing and a population of more than 150,000. The City has its own water utility, the Corona Department of Water and Power (DWP). DWP has been in existence since 1897 and formally became a municipally owned utility in 2001. The system consists of six service zones defined by reservoirs.

It contains 21 wells, 45 booster pumps, 16 reservoirs, 535 miles of pipes, and about 40,000 service meters. The City of Corona presently provides municipal water service to nearly 154,627 people through approximately 44,330 domestic service connections. This area includes approximately 32 square miles within the City's municipal area, and 7 square miles within Riverside County.

The City of Corona's treated, imported water is delivered via a single imported water connection to the Mills Transmission Pipeline. Untreated imported water is delivered to the City via three imported water connections on Metropolitan's Lower Feeder, the City's Lester Water Treatment Plant (WTP), Sierra del Oro WTP, and Green River WTP2. The City maintains 21 active groundwater wells, 7 supplying the Temescal Desalter, 14 directly supplying the potable water distribution system, and 2 that are inactive. The City's potable water distribution system consists of 535 miles of pipeline forming six primary pressure zones that serve elevations varying from a low point at 430 feet (Zone 1) in the Green River area to a high point of 1,520 feet (Zone 6) in South Corona. The City operates 16 potable reservoirs ranging in size from 0.5 million gallons (MG) to 6 MG with a total capacity of 43.3 MG. The city operates five blending stations. These stations blend high nitrate Temescal Basin groundwater with high quality imported water and Temescal Desalter product water to lower nitrates and total dissolved solids (TDS). The blended water meets the regulatory standards of the Environmental Protection Agency (EPA) and California Department of Public Health (DPH). The City's pressure zones are interconnected between reservoirs and supply sources by major transmission mains, ranging in size from 12 inches to 36 inches in diameter, and BPS. Distribution pipelines in the City's potable water distribution system distributes water to residential developments and industrial and commercial users.

The City's water supply is comprised of 53% groundwater, 35% Colorado River Water, 2% from the Sacramento-San Joaquin Delta and roughly 10% reclaimed water. The imported water is purchased from the Western Municipal Water District (Western) and delivered to the City by Western via Metropolitan Water District, a major southern California regional water importer that diverts water from the Colorado River Aqueduct (CRA), and from Northern California via the California Aqueduct, also known as the State Water Project (SWP).

The City currently has an estimated total water supply of 35,953 AFY of water City-wide and manages residential, commercial and industrial, and irrigation accounts. Projections by the City, and other local agencies, indicate that Corona will expand to an ultimate population of over 165,000 people by the year 2035. This will increase the need for greater water conservation measures and requires immediate action on the part of the City to begin addressing future water needs. The proposed AMI Project will assist the City in achieving greater water conservation efforts.

Exhibit 1: City of Corona Water Supply

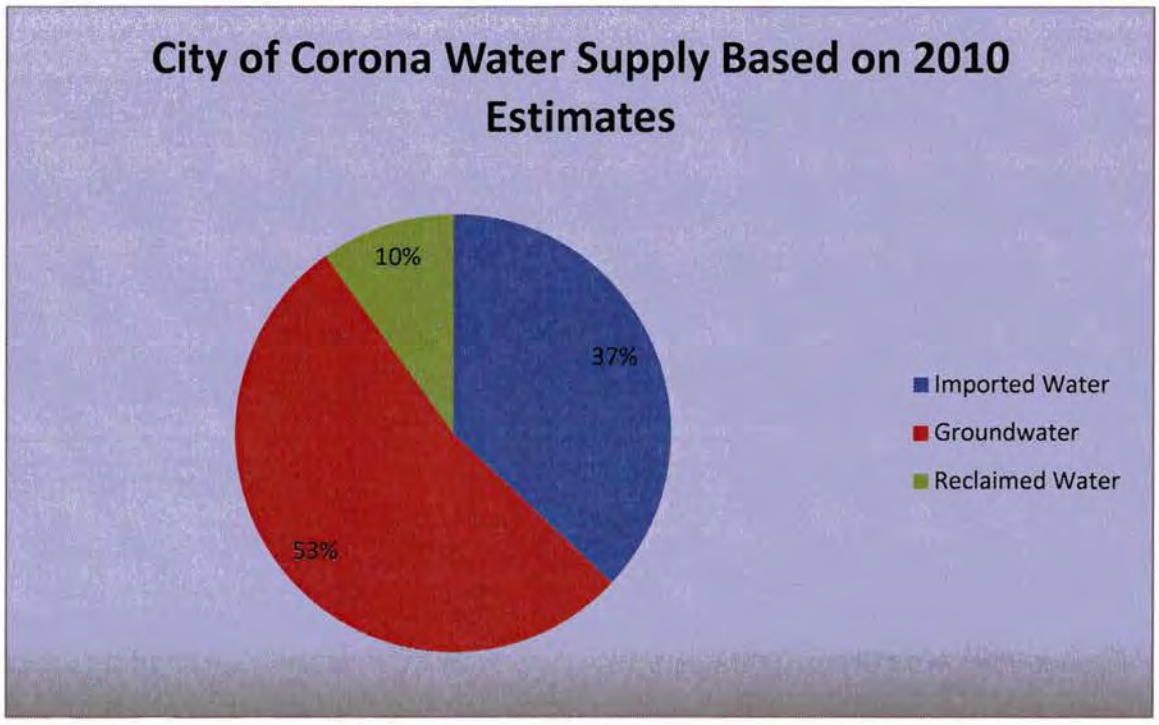


Exhibit 2: City of Corona State and County Location Map

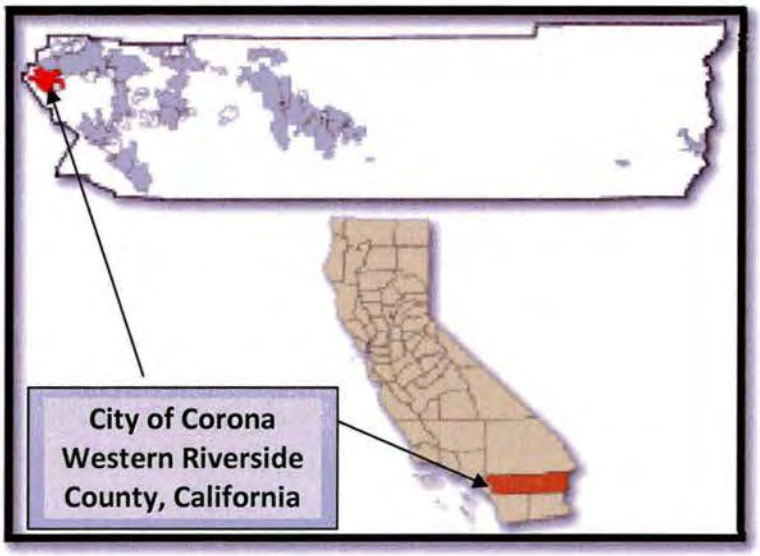


Exhibit 2b: City of Corona Regional Map

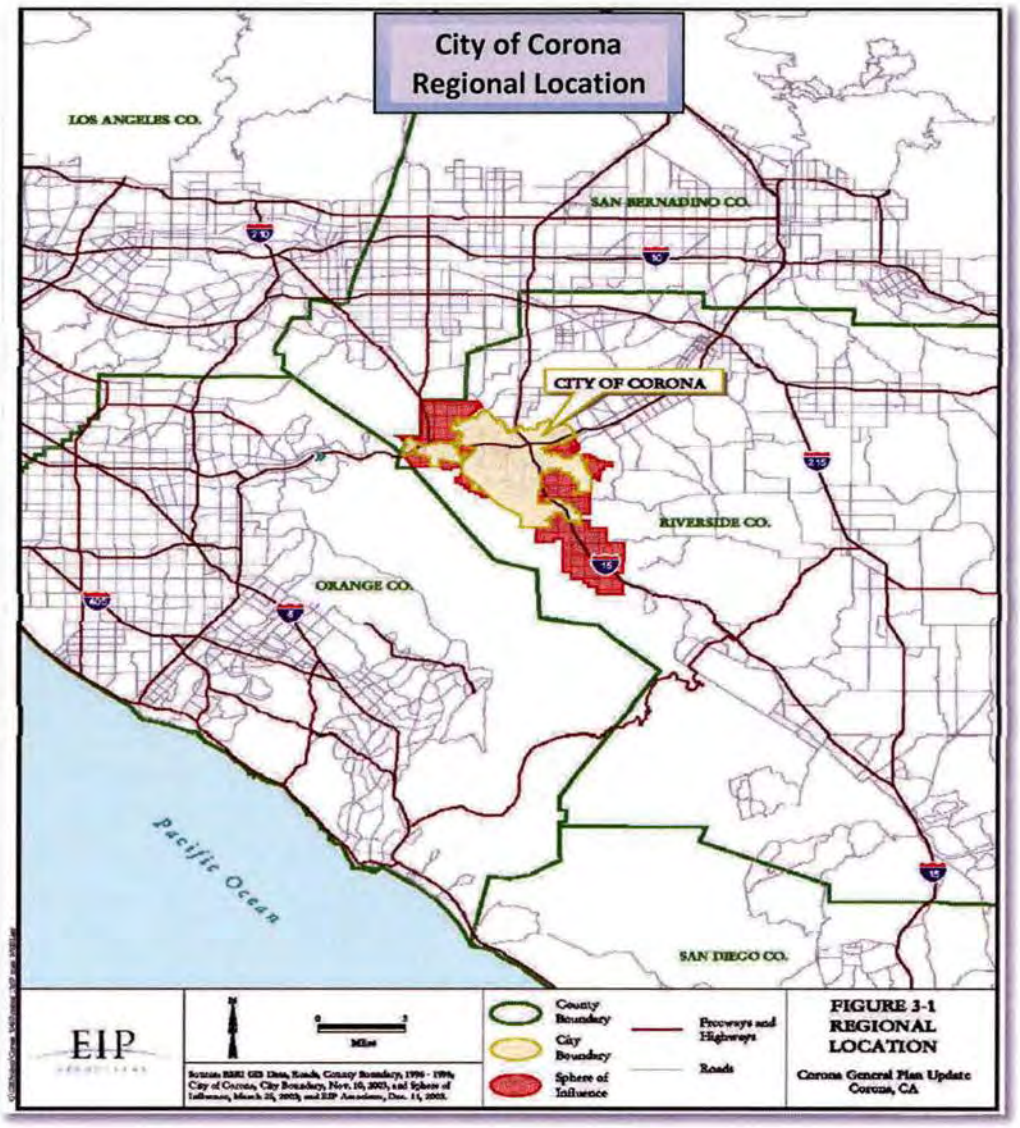
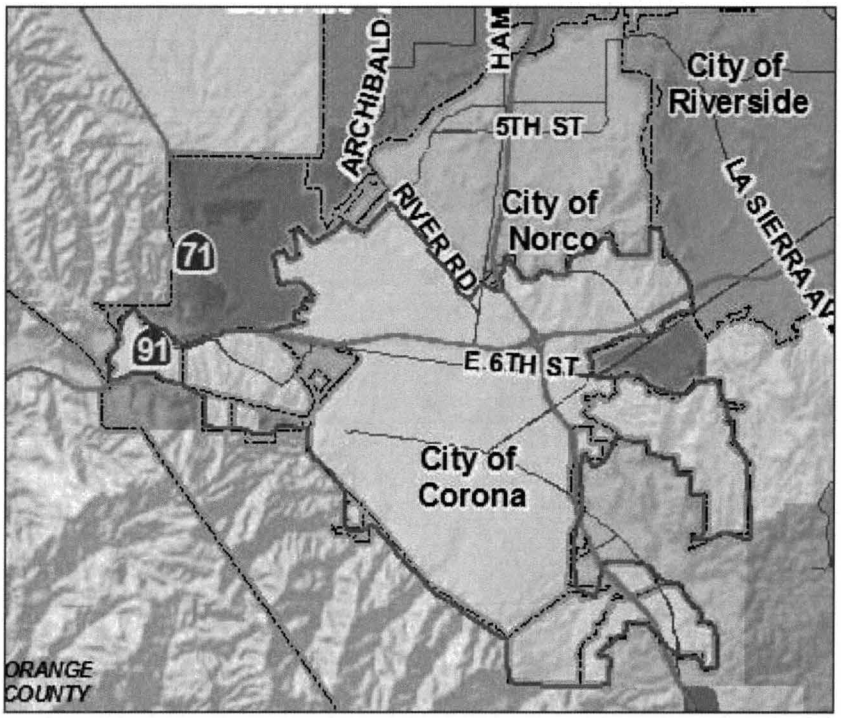


Exhibit 3: City of Corona Neighboring Cities Map



Corona is bordered by the City of Norco to the north and the City of Riverside to the West. Orange County is located east of Corona.

The City's goal is to conserve water and reduce the amount of water usage in the AMI service area by a minimum of 10% per year through the installation of AMI meters in alignment with industry standards for AMI water savings projections. As a baseline for future comparison, in 2010 5,922 acre feet per year of water was used in the proposed AMI Project service area by a combination of residential, commercial, industrial and landscape clients as follows:

- Landscape – 1015.5 AFY;
- Business/Industrial/Commercial – 535.5 AFY;
- Residential Single Family – 3716.5 AFY;
- Residential Multi Family – 106.6 AFY; and
- Reclaimed – 548 AFY.

The City of Corona will closely track and monitor the water usage of these existing water clients to determine the water conservation savings that are achieved post AMI meter installation. Additional environmental benefits will also be achieved through the AMI Project through the elimination of meter readers taking vehicle trips to read meters monthly. This will significantly reduce Greenhouse gas emissions and help promote clean air conservation efforts.

Potential Shortfalls and Challenges.

The AMI project will help reduce the City's use of State Water Supply and Colorado River Water resources and will assist the City in conserving water in line with the goals of the WaterSMART: Water and Energy Efficiency Grant Program. California has experienced three periods of severe drought in the past century. Due to this, the City is considered vulnerable to shortfalls in water supply. The City and all other southern California water suppliers are facing increasing challenges in regards to water resources in the region. In fact, the California Department of Water Resources predicts statewide water shortages of two to six million acre feet per year by the year 2020. Additionally, the City expects increased population growth over the next decade with expected increases from 148,600 in 2009 to 164,588 by year 2035.

Additionally, in 2008, Governor Arnold Schwarzenegger introduced a seven-part comprehensive plan for improving the Sacramento-San Joaquin Delta. As part of this effort, the Governor directed state agencies to develop a plan to reduce statewide per capita urban water use by 20 percent by the year 2020. The City has identified the following 20% by 2020 targets:

Exhibit 4:
City of Corona 20% by 2020 Target

Type of Water Use	Gallons Per Capita Per Day (GPCD)	Basis
Baseline Water Use	265	10-year period of water use from 1996 to 2005
2020 Water Use Target	212	DWR Target Method 1, a standard 20% reduction from the Baseline Water Use
2015 Interim Water Use Target	238	Halfway point between the Baseline Water Use and 2020 Water Use Target
Corona's Current Water Use	228	2009 water use divided by the population and 365 days per year

Greater demand for potable water, coupled with State mandates for water conservation, has escalated the demand for the City to develop long-term water conservation strategies that will help alleviate potential shortages in the water supply. With the installation of smart meters, the City will increase conservation efforts through improved water management practices.

Relationship with Reclamation.

Identify any past working relationships with Reclamation. This should include the date(s), description of prior relationships with Reclamation, and a description of the projects(s).

The City has a long history of successfully completing Bureau of Reclamation funded projects on-time and within budget parameters. Previous BOR grants include:

- Title XVI Construction Activities grant, awarded May 23, 2011, in the amount of $1,014,674 for the Norco/Stagecoach/Butterfield Reclaimed Waterline and Foothill/Eagle Glen Reclaimed Waterline.

- Water Conservation Field Services Program (Southern California Office), awarded July 14, 2011, in the amount of $41,880 to develop a Water Use Efficiency Master Plan.

- CALFED Water Use Efficiency Grant Program, awarded September 5, 2008, in the amount of $125,000 for weather-based irrigation controllers and sprinkler installations.

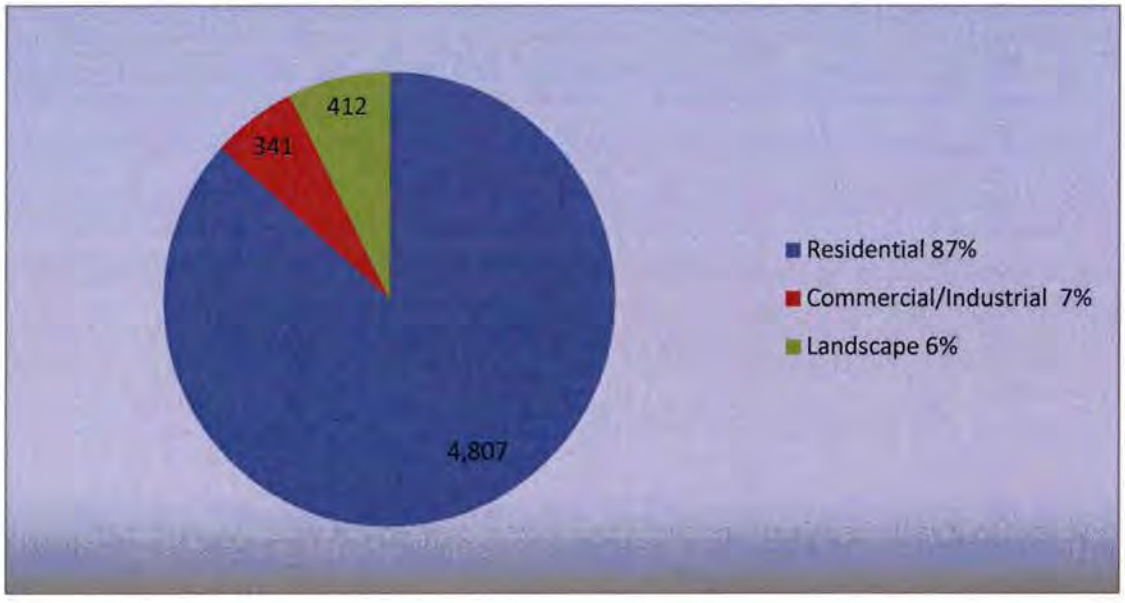
All projects are either underway, or on schedule, or have been completed on-time and within budget parameters.

Technical Proposal: Technical Project Description

The technical project description should describe the work in detail. This description shall have sufficient detail to permit a comprehensive evaluation of the proposal.

The City proposes to install 5,560 "smart" meters and two control towers within a 5-10 mile service area of south Corona in accordance with following breakout of DWP customers. Although the commercial/industrial and landscape clients represent a smaller number of overall meters installed, it is important to note that these clients are much larger water users and often exceed their current monthly water usage allotment and therefore will benefit the most from having access to computerized data that will allow them to monitor their own water usage.

Exhibit 5:
Proposed AMI Meter Installation Breakdown by Account
5,560 Total Meters to be Installed



The actual project work associated with the AMI Project is extremely straightforward. The City will use grant funds to hire a contractor to perform a propagation study, complete design work, and complete the meter replacement project. Once installation is completed, the City will install all necessary software and work with the vendor to develop 24/7 real time computer access for both DWP staff and water customers.

This proposed service area was carefully selected as the City's first AMI installation site given that it is the furthest from City of Corona Department of Water and Power (estimated 8-12 miles away) and requires the most intensive staff time and travel to perform meter reads or mitigate problems in the area. To access the area, City staff must travel by freeway on both Interstate 15 and State Route 91. Both of these systems are heavily congested freeways with daily gridlock. By alleviating the need for meter readers to travel by vehicle to the site to read meter readings, Corona will reduce Greenhouse gas emissions and improve air quality.

Also, southern Corona is a diverse mix of commercial and residential customers and therefore will provide the City with a better experience in how the "smart" meters will perform in a variety of customer settings. The service area is home to two of the City's largest commercial retail shopping centers, Dos Lagos and Corona Crossings, one of the City's largest business parks, Corona Point, two large golf courses, and three schools. In addition, a large portion of residential customers live in the area, primarily in single family homes, as well as medium and high density housing developments. The well-rounded nature of this community will provide the City with a solid basis of understanding how the AMI project will improve operations across sectors, post AMI installation. Exhibit 6 on the following page illustrates the AMI Project service area.

Exhibit 6:
Proposed "Smart" Meter Service Area (blue shaded area)

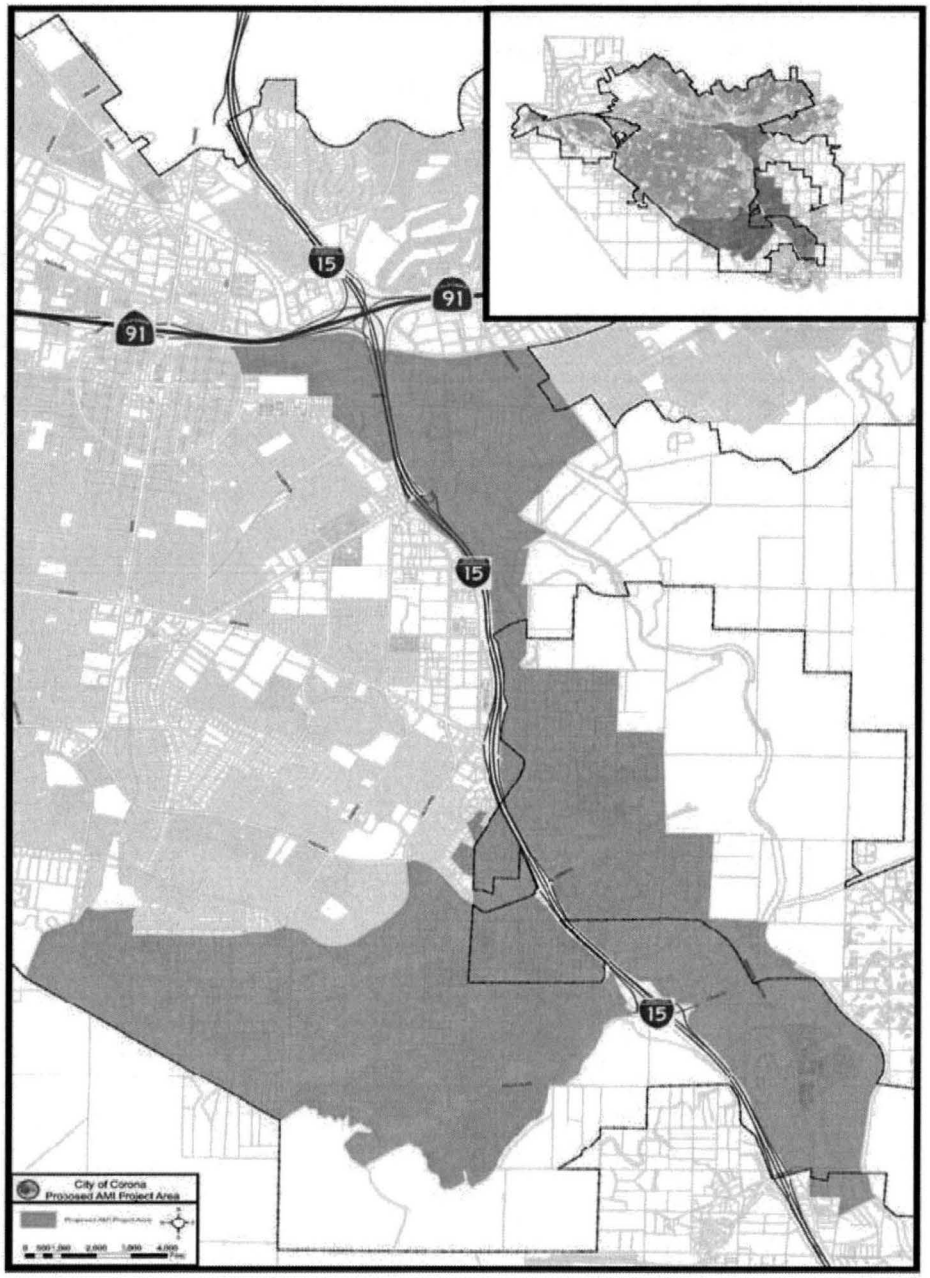
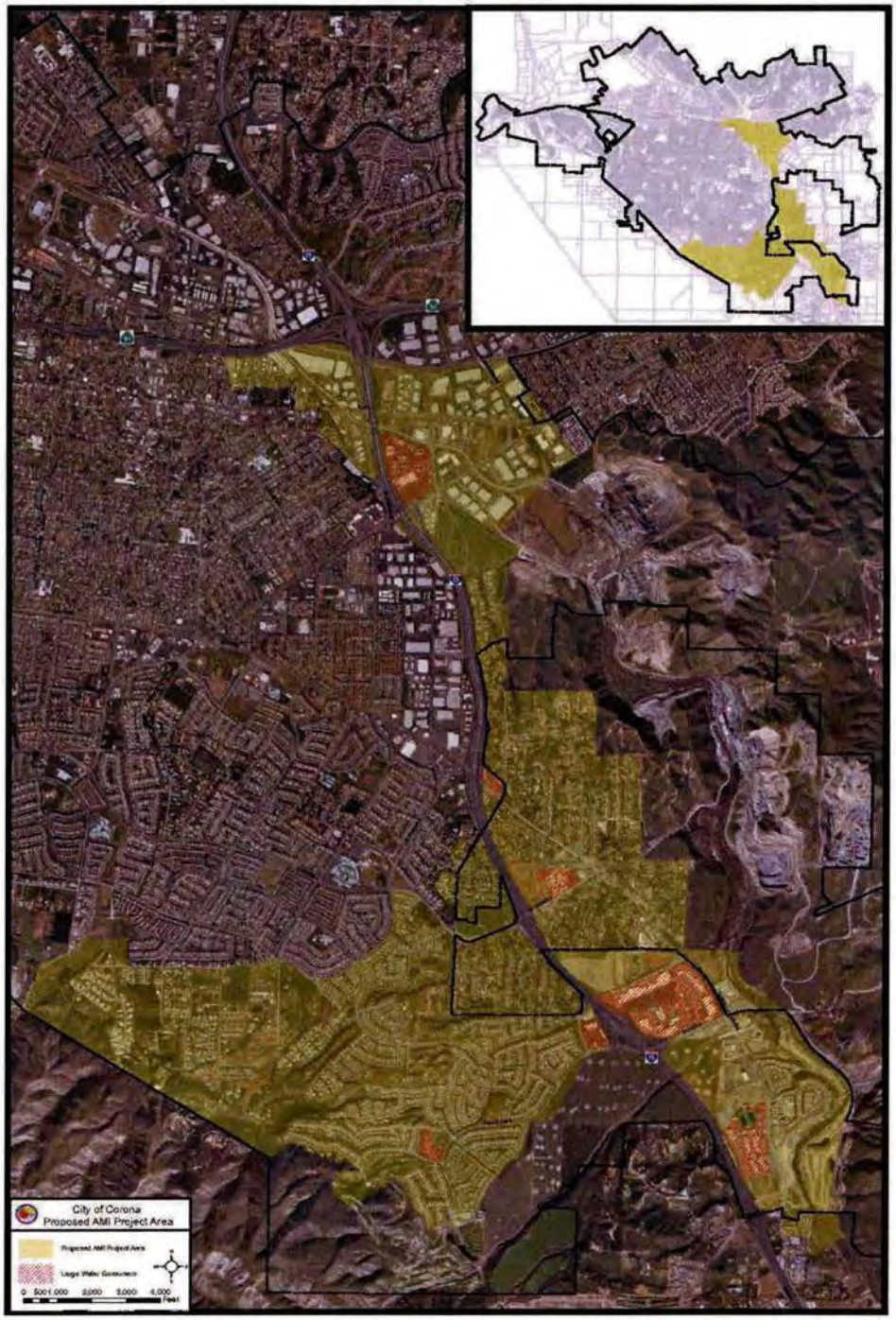


Exhibit 7:
AMI Project Service Area with Largest Water Users Denoted



(4) Technical Proposal: Evaluation Criteria

The Evaluation Criteria portion of your application should thoroughly address each of the following criterion and subcriterion in the order presented to assist in the complete and accurate evaluation of your proposal. The Evaluation Criteria comprise 100 points of the total evaluation weight. Please note that projects may be prioritized to ensure balance among the program Task Areas and to ensure that the projects address the goals of the WaterSMART program.

Evaluation Criterion A: Water Conservation (32 points)

Up to 32 points may be awarded for a proposal that will conserve water and improve efficiency. Points will be allocated to give consideration to projects that are expected to result in significant water savings.

Evaluation Criterion A: Water Conservation

Note to Federal Reviewer: This project has separate components that will result in both quantifiable water savings and improved water management; therefore this application will respond to both (a) and (b). As noted on page 23 of the guidelines a combined total of 20 points is possible for Subcriteria No. 1(a) and (b).

Subcriterion No. A1(a) Quantifiable Water Savings

Describe the amount of water saved. For projects that conserve water, state the estimated amount of water conserved in acre-feet per year that will result as a direct benefit from this project. Please provide sufficient detail supporting the estimate, including all supporting calculations. Please also include the following: Projects to provide water savings for irrigation and municipal water systems other than those listed above will considered and evaluated based on the amount of estimated water savings and the adequacy of the description of how the savings are estimated. How have average annual water savings estimates been determined? This should include a detailed description of the rationale and methodologies used to develop the estimates. Please provide all relevant calculations, assumptions, and supporting data.

Water Saved: The City will conserve approximately 592 acre feet of water per year as a direct benefit of the proposed AMI project. This savings is comprised of the following estimates and calculations:

1) ***Installing AMI Meters.*** The City will install 5,560 AMI meters in the south Corona area as defined by AMI Project service territory boundaries defined in the previous section. In preparation for the project, City staff ran detailed water reports to ascertain water usage information from the 2010 Fiscal Year (for the defined service territory) that yielded an estimated water use of 5,922 AFY (by DWP customers).

2) ***Actualizing Water Savings.*** In accordance with 2010 water usage data from the AMI project service territory that estimated 5,922 AFY in usage, the City estimates that the proposed AMI Project will result in a minimum of 592 AFY saved, or 10%.

By switching from standard volumetric meters that are outdated and do not provide the ability for remote monitoring to AMI system meters that provide "smart," real-time, two-way communication electronically to both City staff and consumers, the City will be able to mitigate water leaks and losses, train consumers on how to reduce water usage and help control water use during water alerts and droughts. This will result in an estimated water savings of a minimum of 10% annually in alignment with California Urban Water Agency estimates that state that installing meters in water service locations that were previously unmetered typically results in a 15% reduction in water use. The City hopes to achieve this level of water savings but will estimate 10 percent to ensure project goals will be met.

3) ***Reduced Reliance on Imported Water.*** With 592 AFY saved as a direct result of the AMI Project, the City of Corona will reduce reliance on imported water supplies that come from State Water Supply or Colorado River Water thereby conserving water resources in alignment with State mandates.

The project is an important first step in a five-year, City-wide plan to have AMI meters installed throughout the City by 2015. The project is aligned with a number of State, regional, and City Best Management Practices (BMPs) aimed at conserving water and reducing water losses. The State of California Urban Water Management Plan cites "metering" (referenced in Chapter 3) as a BMP for water conservation. Similarly, Western Municipal Water District, Corona's water wholesaler, is requiring all future meter installations to be "smart" meters. The City's 2010 Urban Water Management Plan also includes metering as a BMP for reducing water loss and increasing water management efficiency. Significant AMI system benefits will be realized by:

- Improving metering operations - by switching from outdated (92% of the meters are more than 10 years old) volumetric meters to next generation AMI "smart" meters that allow for two-way communication between the meter and the City, and between the meter and the DWP customer;

- Improving accuracy of the metering system - by providing "real-time" results that can be accessed and reviewed 24/7 by water customers and City staff;

- Creating significant water savings - by immediate awareness/intervention of water leaks, theft or tampering that currently can take a month or more to identify;

- Providing resources for commercial, school, industrial, and landscape clients to better manage their water usage and reduce costs on billing, translating into water savings from the City's largest water users by volume;

- Assisting the City in complying with State mandates for environmental and energy savings associated with fuel-intensive vehicle trips to commercial and residential clients to perform monthly meter readings;

- Reducing reliance on imported water resources through water conservation gains associated with installing AMI meters; and

- Accounting for water losses that are currently unable to be billed to clients due to inaccurate meters that will help the City generate additional revenue.

A large portion of the City's water losses are attributed to uncontrollable leaks that are not quickly or easily detectible with the current outdated metering system. The City completed its American Water Works Association water loss worksheet for 2009/2010 Best Management Practices and one of the priority areas that needed attention was billed meter data to help reduce water losses. With the installation of AMI meters, the City will be able to mitigate leaks and other water losses instantly. Currently clients have their meters read monthly and wait an average of 35 days to receive their bill. The AMI Project will eliminate time lapses and provide immediate access to data regarding leakages. This will significantly cut down on water loss issues and help conserve water. The City has closely monitored the progress of their neighboring City of Norco that converted to City-wide AMI meters in 2010. They have achieved encouraging early results in managing water loses and the City of Corona plans to apply the same best practices standards to the proposed AMI project.

How will actual water savings be verified upon completion of the project? Please explain the calculations and the analyses for this verification

The City will determine actual water savings by reviewing month end status reports across the life of the AMI project. The City will determine usage rates based on AMI data along with Corona Department of Water and Power reports, water bills, and other sources to determine the actual amount of water that is used and conserved post installation of the AMI meters. This will provide the City with an accurate accounting of the water savings that can be attributed to the AMI Project in the south Corona area.

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

Annual Acre Feet of Water Supply: The City's average annual acre-feet of water supply is approximately 35,953 AFY according to 2010 calculations. Exhibit 8 on the following page provides a breakdown of the current and projected water supply per year between 2010 and 2035.

Exhibit 8: City of Corona Water Supply in Acre Feet Per Year							
Water Supply Sources	% of Average Annual Supply	**Average Annual Supply 2010**	2015	2020	2025	2030	2035
Imported Water	37%	**13,427**	20,444	18,467	18,775	19,125	19,503
Groundwater	53%	**19,218**	20,444	18,467	18,775	19,125	19,503
Recycled Water	10%	**3,308**	5,222	6,873	6,873	6,873	6,873
Totals	100%	**35,953**	46,110	43,807	44,423	45,123	45,879
Source: Urban Water Management Plan, 2010							

Where is that water currently going (i.e., back to the stream, spilled at the end of the ditch, seeping into the ground, etc.)? Where will the conserved water go?

Water Destination:

Conserved water from the AMI Project will directly contribute to the sustainability of the City's water supply through a reduction in water use that will lead to less reliance on imported water resources. It is estimated that the conserved water associated with the project will remain at the source. The proposed AMI project area receives its water from the City of Corona's water supply that incorporates imported water resources through the Metropolitan Water District Lower Feeder line with ground water resources, blends it through five different blending stations and pumps it out to water customers in the AMI area and throughout the City.

Subcriterion No. A.1(b)—Improved Water Management:

*Up to **5 points** may be awarded if the proposal will improve water management through measurement, automation, advanced water measurement systems, through implementation of a renewable energy project, or through other approaches where water savings are not quantifiable.* **Describe the amount of water better managed.** For projects that improve water management but which may not result in measurable water savings, **state the amount of water expected to be better managed, in acre-feet per year and as a percentage of the average annual water supply.** (The average annual water supply is the amount actually diverted, pumped, or released from storage, on average, each year. This does not refer to the applicant's total water right or potential water supply.) Please use the following formula: Estimated Amount of Water Better Managed divided by Average Annual Water Supply.

The proposed project is estimated to better manage approximately 6% of the City's annual water supply calculated and described as follows:

Estimated amount of water better managed:	5,922 AFY (see narrative below)
Average annual water supply:	35,953 AFY
Calculation:	5,922 divided by 35,953 = ***6.07% (6%)***

The amount of water which will be ***better managed*** is comprised of the total water usage in acre feet per year in the defined AMI service territory which according to 2010 City of Corona water usage reports is 5,922 acre feet of water.
Improved water management is a cornerstone of AMI systems. By installing an AMI system, the City will eliminate the need for time consuming meter reading to be completed manually by a consultant or staff member that allows for the advent of human error in reporting. Through the use of AMI meters, real-time data is immediately available 24/7 simultaneously to City staff and consumers. This eliminates water loss issues through alerts that help the City respond to problems immediately, therefore reducing safety hazards and improving overall customer satisfaction. Another important aspect of water management that will be made possible as a result of the AMI project is adjustments for water use during peak problem times, such as staged alerts, seasonally high usages, or droughts. This will be made possible as the City will be able to closely monitor its largest users and request that they adjust their water usage for a particular time period to reduce burden on the water supply.

Subcriterion No. A2—Percentage of Total Supply:
*Up to **8 additional points** may be allocated based on the percentage of the applicant's total average water supply that will be conserved directly as a result of the project.* **Describe the percentage of total water supply conserved:** State the applicant's total average annual water supply in acre-feet. Explain how this calculation was made.

This project is estimated to conserve approximately 1.65% of the City's annual water supply, calculated as follows:

Average annual water supply:	35,953 AFY
Estimated water conserved as result of project:	592 AFY
Calculation:	592 as a percentage of 35,953 = ***1.65%***

As of 2010, the City's available total water supply was 35,953 AFY. Since 2005, the City's total water demand has averaged 42,462 AFY with 43% (18,311 AFY) being supplied from local groundwater wells, 40% (16,992 AFY) from Colorado River, and 17% (7,159 AFY) from the Mills Pipeline Connection. Since 2004, the City has produced over 50% of its demand from local groundwater. The Water Conservation Act of 2009 requires a 20% reduction
from the historic baseline, reducing the projected demand of 46,167 AFY to 36,934 AFY in 2020. The actual water demand in 2010 was 32,645 AFY, significantly lower than the projected demand for 2010. Some of this decreased demand is believed to be due to water conservation as well as weather and economic downturn.
The City's Water Master Plan estimates that the ultimate build-out demand is projected to reach almost 50,000 AFY by 2035. Incorporating water conservation targets reveal that future

demand will be lower than this initial estimate. While this is well within the current capacity of the City's system, with increasing State and regional mandates to reduce water usage by 20% or more over the next decade, the AMI Project will help the City conserve its annual water supply and reduce its overall reliance on imported water resources.

Subcriterion No. A3—Reasonableness of Costs:

*Up to **4 additional points** may be awarded for the reasonableness of the cost for the benefits gained.* Please include information related to the total project cost, annual acre-feet conserved (or better managed), and the expected life of the improvement. Use the following calculation: Total Project Cost divided by (Acre-Feet Conserved, or Better Managed x Improvement Life) **Failure to include this required calculation will result in no score for this section.** For all projects involving physical improvements, specify the expected life of the improvement in number of years.

This project is estimated to cost $11.48 per acre foot of water over a 20-year project useful life, calculated as follows:

Total Project Cost:	$1,359,610
*Estimated water better managed:	5,922 AFY
Life of Improvements:	20 years
Calculation:	5,922 AFY x 20 years = 118,440 AF Water Better Managed over the Useful Lifetime of AMI Meters Total Project Cost $1,359,610 divided by 118,440 = ***$11.48/AF***

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.*

For projects that include construction or installation of renewable energy components, please respond to Subcriterion No. 1

If the project does not implement a renewable energy project but will increase energy efficiency, please respond to Subcriterion No. 2.

Subcriterion No. B1— Implementing Renewable Energy Projects Related to Water Management and Delivery

This project will address Subcriterion No.B 2.

Subcriterion No. B2—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). Include support for the calculation of any energy savings expected to result from water conservation improvements. **Describe** any renewable energy components that will result in minimal energy savings/production (e.g., installing small-scale solar as part of a SCADA system).

Reducing reliance on Imported Water. In the State of California, it is estimated that the State Water Project pumps water almost 2,000 feet over the Tehachapi Mountains. The State Water Project is the largest single user of energy in California. It consumes an average of 5 billion kWh/yr, accounting for roughly two to three percent of all electricity consumed in California http://www.epa.gov/region9/waterinfrastructure/ waterenergy.html.). The proposed AMI project will result in increased energy efficiency in water management and water conservation practices by reducing the amount of water currently being imported by pumping water in through imported water resources. The City receives approximately 40% of its water from the Metropolitan Water District via Western Municipal Water District. As noted previously, this water is drawn from the Colorado River Project and the State Water Project.

With an estimated 592 AFY of potable water that will be saved by this project, the end result will be measurable energy savings. Based on energy consumption of 3,000 kWh to pump one AF over the mountains from the California Bay Delta the energy savings is calculated to be $235,142 based on energy costs of .1324 per kWh (592 AFY X 3,000 kWh =1,776,000 kWh, 1,776,000 kWh kWh X .1324 =$235,142). Kilowatt-hours required was determined based on the Natural Resources Defense Council report entitled, *Energy Down the Drain: The Hidden Costs of California's Water Supply,* (page 9). Average cost of kWh in California was derived from the U.S. Energy Information Administration Form EIA-861 Annual Electric Power Industry Report, 2009.

The AMI project will also help reduce energy costs associated with local City pumping processes that have to work in "overdrive" conditions when water leaks or losses occur. According to the National Resources Defense Council, many drinking water systems lose as much as 20% of treated drinking water each year due to leaks in the pipe networks. AMI meters will help the City reduce the amount, frequency, and duration of leaks and as a result will net energy savings associated with a reduction in local pumping efforts.

In addition, the AMI project will also reduce energy use by increasing the efficiency of the meters being used. Currently over 92% of the meters that will be replaced are more than 10 years old and are past their useful life. This also means that they are not energy efficient and require more energy to operate. By changing to AMI "smart" meters, the City will also reduce energy use for meters.

Finally, by reducing the number of vehicle trips made by meter readers to the south Corona area, the City will decrease energy use and improve air quality. The proposed service area is 8-12 miles away from the DWP offices (one way) through some of the most congested freeways in the State. A reduction in vehicle miles traveled will reduce emissions and safe fuel; therefore, resulting in less energy use by the City's service fleet.

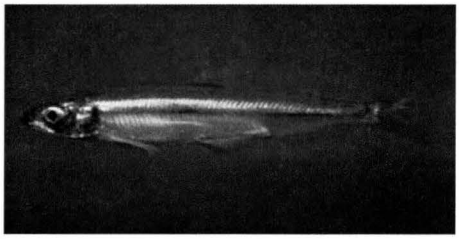
Evaluation Criterion C: Benefits to Endangered Species (12 points)

Up to **12 points** may be awarded for projects that will benefit federally-recognized candidate species or up to **12 points** may be awarded for projects expected to accelerate the recovery of threatened species or engendered species, or addressing designated critical habitat.

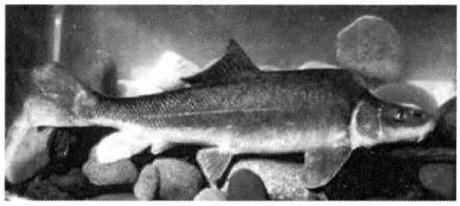
Please include the following elements: (1) How is the species adversely affected by a Reclamation project? (2) Is the species subject to a recovery plan or conservation plan under the Endangered Species Act? (3) Extent to which the proposed project would reduce the likelihood of listing or would otherwise improve the status of the species.

Federally Threatened/Endangered Species.

The City obtains an estimated 40% of its water supply from Metropolitan Water District. Metropolitan Water District obtains its supplies from the Colorado River and the California Bay Delta. The proposed AMI project will help accelerate the recovery of a minimum of three identified endangered fish species and one threatened species that are federally-recognized by the U.S. Department of Fish and Wildlife. They have also been listed as endangered in the Colorado River and the California Bay Delta Estuary. The AMI project will help the City of Corona save 592 AFY of water.



Threatened Delta Smelt

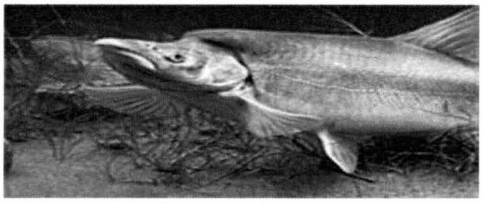


Endangered Colorado Pikeminnow

By reducing water use, the City will place less demand on imported water and as a result will help preserve the habitats of these endangered fish species and contribute to the overall improvement of the fish populations.

The proposed AMI project protects and expands potential habitats which will benefit at least four federally recognized endangered/threatened species associated with importing water into the City as follows:

Endangered Razorback Sucker



Endangered Humpback Chub

Exhibit 9:
Endangered Species Impacted by Imported Water to the City of Corona

Species	Status	Subject to a Recovery Plan
The Colorado Pikeminnow	Endangered- Federally-Recognized by the U.S. Fish and Wildlife Service	Yes. Colorado Pikeminnow Spotlight Species Action Plan 2009.
Humpback Chub	Endangered- Federally-Recognized by the U.S. Fish and Wildlife Service	Yes. Humpback Chu 2nd Revised Final Plan 1990.
Razorback Sucker	Endangered- Federally-Recognized by the U.S. Fish and Wildlife Service	Yes. Razorback Sucker - Recovery Goals 2002.
Delta Smelt	Threatened- Federally-Recognized by the U.S. Fish and Wildlife Service, Endangered- Recognized by CA State	Yes. Delta smelt Spotlight Species Action Plan 2009.

Evaluation Criterion D: Water Marketing (12 points)

Up to **12 points** may be awarded for projects that propose water marketing elements, with maximum points for projects that establish a new water market. Briefly describe any water marketing elements included in the proposed project.

Water Marketing. The AMI project will not specifically open new external water markets, but will provide a unique opportunity for the City to closely track customer water usage and identify new needs for water markets in the future. New abilities to closely monitor and understand the way in which commercial, industrial, landscape and residential customers are using water will assist the City in planning for and developing new inter-City water markets in the future in south Corona for things such as reclaimed or recycled water that have far reaching capabilities for water conservation efforts. With a large City sports park, two golf courses and three schools located in the AMI service territory, the City anticipates that the ability to open additional water markets in the future for non-residential customers will significantly contribute to water conservation efforts and assist the City in meeting state mandates.

Evaluation Criterion E: Other Contributions to Water Supply Sustainability (12 points)

*Up to **12 points** may be awarded for projects that contribute to a more sustainable water supply in ways not covered by other criteria.*

This criterion is intended to provide an opportunity for the applicant to explain any additional benefits of the proposed project within the water basin, including benefits to downstream water users or to the environment. Please provide sufficient explanation of the expected benefits and their significance, including any information about water supply conditions within the basin (e.g., is the river, aquifer or other source of supply over-allocated?

Addressing Specific Concerns: The AMI project will make significant contributions to sustainability of the City's water supply. By targeting some of the City's largest commercial water users in the proposed AMI territory, the City will be able to make timely adjustments to account for drought conditions or City-wide Stage II alerts by having the ability through the AMI system to target the biggest users and request/provide incentives for reduced use during peak or problematic times. This will help ensure that the City has the ability to prevent water supply shortages when the time arises.

The City is not built out and is expected to experience significant population growth over the next decade that will further increase the demand for more stringent water conservation measures to ensure the reliability of the local water supply. As Corona continues to grow (projections estimate the City's population to grow from 148,600 in 2009 to 178,000 by year 2020, a nearly 20% increase within 10 years), the AMI project will help the City take the first step to improve water management and water conservation practices through the installation of "smart" meters first in south Corona and later City-wide by 2015. With State mandates such as 20x2020 that require the City to reduce its water consumption by 20%, despite increased demands from population growth, the City will benefit significantly by adopting new water

conservation strategies such as the AMI project to help offset the need for imported water usage to maintain water supply sustainability.

In addition to conserving water, the real-time data and information access associated with the AMI project will also help the City identify potential markets for reclaimed/recycled water use in the South Corona region, home to some of the City's largest commercial retailers and a large City Park. This has the potential to help further increase water conservation above and beyond the projected 592 AFY of savings associated with the metering change out effort.

Stakeholder Support and Collaboration: The AMI project has widespread support from stakeholders throughout the City and region. These collaborative partners include the following as evidenced by letters of support:

- ***Santa Ana Watershed Project Authority*** – The AMI project is in direct alignment with the *One Water One Watershed* (OWOW) sustainability initiative that emphasizes water-use efficiency as a key element to long-term sustainability for water in the region.

- ***Western Municipal Water District*** – Reducing reliance on State Water Project resources and Colorado River Water are primary objectives of Western Municipal Water District. The AMI project will help reduce the region's dependency on imported water and support Western in its commitment to sell approximately 125,000 AFY of water to a region of more than 853,000 people.

- ***Riverside County Supervisors*** – Meeting state mandates for water conservation is a regional priority and currently an active part of planning activities for county supervisors. The AMI project is in direct alignment with many regional water-use efficiency activities will help serve as a model for neighboring cities in the region.

- ***Corona Chamber of Commerce*** – The AMI project will serve some of Corona's largest commercial businesses and provide tools for businesses to monitor their own water use while supporting the City in conserving water resources.

In addition, Corona has received strong support from Metropolitan Water District, Corona-Norco Unified School District and numerous area landscape and business clients who have a vested interest in reducing water waste and conserving resources. Corona residents who reside in the south Corona area are also very supportive of the AMI system as it will help them have 24/7 access to their water use and will help them better manage their water bills in the context of the City of Corona's new tiered-rate system.

Increase awareness of water and/or energy conservation and efficiency: The City will use the AMI project as a tool to teach the importance of water conservation and educate residential and commercial clients about how to take a proactive role in their water usage by taking advantage of the computerized interface and educational tools the AMI system will provide.

The City plans to develop educational materials and trainings around the new AMI system and will help reach out to south Corona residents to actively engage them in taking part in water conservation strategies such as monitoring water usage, leak detection, reporting, and more.

Evaluation Criterion F: Implementation and Results (12 points)

Subcriterion F.1—Project Planning

Points may be awarded for proposals with planning efforts that provide support for the proposed project. **Does the project have a Water Conservation Plan, System Optimization Review (SOR), and/or district or geographic area drought contingency plans in place?**

Planning Supporting Work: The proposed AMI project, and associated scope of work, are consistent with City of Corona planning efforts as follows:

- 2010 Urban Water Management Plan;
    - As part of the 2010 Urban Water Management Plan, the AMI Project is in alignment with Best Management Practices for metering in association with water conservation and water management.
- Water Conservation Ordinance in the categories of water management, water conservation and water use efficiency; and
- Water Use Efficiency Master Plan (Under development with a BOR-funded grant).

Engineering/Design Work Already Completed: In 2011, the Corona DWP began to assess the need for AMI meters City-wide. South Corona emerged as a prime target area to implement a first phase of AMI meter replacement due to its diversity in customer type and water usage and high percentage of outdated meters. Engineering and design work has not yet been completed. Given the nature of the AMI project, once a grant agreement is executed the City will be able to contract with a vendor, have a propagation study completed, and have a design plan executed within a short timeframe.

Meets Goals of State/Regional Water Plan: The AMI project is in direct alignment with the:

- Metropolitan Water District's 2010 Integrated Water Resources Plan, (IWRP);
- Western Municipal Water District's 2005 Urban Water Management Plan;
    - Water reliability is one of the main objectives outlined in WMWD's 2005 Urban Water Management Plan. The proposed AMI project will assist WMWD in reducing reliance on State Water Project and Colorado River Water, which currently comprises a large percentage of WMWD's water supply.
- State of California Water Plan 2009 Update; and
    - The State of California Water Plan outlines metering as a top Best Management Practice (BMP) in Section 3: Urban Water Use Efficiency.
- State of California 20 x 2020 Water Conservation Plan

- The water conservation strategies inherent in the project will also assist Corona in doing its part to help the State of California reach its goal of reducing per capita water consumption by 20 percent by the year 2020.

Subcriterion F. 2—Readiness to Proceed

Points may be awarded based upon the extent to which the proposed project is capable of proceeding upon entering into a financial assistance agreement. Are all necessary plans/designs complete?

Project Readiness. The AMI project is ready to proceed. Design work will take a short number of months once the grant agreement is executed. Matching funds have already been secured for the project and are able to be accessed immediately upon grant contract execution. Assuming a grant agreement is executed in September 2012, the City will be able to develop a bid process for the project effective immediately and will have the entire project completed in a 14 month period, or by November of 2013.

Final design is scheduled to be completed by the close of 2012. The City then expects to award the construction contract and have a kick-off meeting where a refined timeline and expectations will be developed with the successful contractor. Construction of the project is scheduled to begin in January 2013. Installation will commence in February 2013. All project activities are expected to be closed out in fall of 2013. The City will comply with all BOR reporting requirements including filing the SF-425, Federal Financial Report, on a semi-annual basis, submitting semi-annual performance reports and a final report.

Project Implementation Plan:

Exhibit 10: Project Schedule									
No.	**Timeline Major Project Tasks**	*Quarters 2012*				*Quarters 2013*			
		1	*2*	*3*	*4*	*1*	*2*	*3*	*4*
1	-- Execute Grant Agreement with BOR								
2	Propagation Study, Design and Permitting								
2.1	-- Develop Plans, Specifications and Estimates								
2.2	-- Prepare Bid Package for construction elements								
3	Bidding, Award and Execute Contract								
3.1	Project Kick-Off								
3.2	-- Kick-off Meeting								
3.3	-- Refined Timeline and Expectations Plan								
4	Water Customer Notification and Education								
4.1	-- Announcements								
4.2	--Meetings								
5	Installation and Training								
5.1	--Vendor Installation of Control Towers, Server and Software								

Exhibit 10: Project Schedule									
No.	Timeline Major Project Tasks	Quarters 2012				Quarters 2013			
		1	2	3	4	1	2	3	4
5.2	--Vendor Installation of Meters								
5.3	--Software Training								
6	Grant Administration, Reports, Reimbursements								
6.1	--Project completion and grant close out								

Permits and Process: The City of Corona does not anticipate that permits will be required for the AMI Project. This is due to the fact that all meters will be installed in the place of existing City of Corona water meters. Control towers will be installed on City of Corona property and will not require specialty permits.

Subcriterion F. 3—Performance Measures

Points may be awarded to proposals that provide support for the development of performance measures to quantify actual project benefits upon completion of the project.

Provide a brief summary describing the performance measure that will be used to quantify actual benefits upon completion of the project (i.e., water saved, marketed, or better managed, or energy saved). For more information calculating performance measure, see Section VIII, "Other Information."

Performance Measure for Quantifying Post-Project Benefits

All WaterSMART Grant applicants are required to propose a "performance measure" (a method of quantifying the actual benefits of their project once it is completed). Actual benefits are defined as water actually conserved, marketed, or better managed as a direct result of the project. A provision will be included in all assistance agreements with WaterSMART Grant recipients describing the performance measure, and requiring the recipient to quantify the actual project benefits in their final report to Reclamation upon completion of the project.

The City will use the following performance measures to evaluate the Advanced Metering Infrastructure Project after project completion as follows:

1) ***Amount of water conserved.*** This will be measured by having City staff review water usage reports for the AMI service territory for 2010/2011 directly compared with usage post AMI meter installation in 2013. This will allow the City to evaluate the actual amount of acre feet per year saved as directly correlated with the AMI project installation.

2) ***Amount of water losses mitigated/unaccounted for water recuperated.*** City staff will review water usage reports as well as review water bills for the AMI project service territory to ascertain the reduction in water losses and unaccounted for water that has been recuperated in relation to the AMI Project.

3) ***Amount of metering staff/contractors reduced .*** The City will compare staff/metering contract costs with previous years to ascertain budget savings associated with metering staff and contractors reduced as directly related to the AMI project. Currently the City pays $0.92 per meter per month for meter readings performed by contractors. It is estimated that more than $5,000 in savings will be actualized as a result of eliminating 5,640 meter readings per month.

Evaluation Criterion G: Connection to Reclamation Project Activities (4 points)

Up to 4 points may be awarded if the proposed project is in a basin with connections to Reclamation project activities. No points will be awarded for proposals without connection to a Reclamation project or Reclamation activity.

The City of Corona receives approximately 35% of its imported water from the Colorado River Aqueduct, which is a Bureau of Reclamation facility. The proposed AMI Project will reduce the City's reliance on imported water supplies and help contribute to the conservation of Bureau of Reclamation water supplies.

~End of Technical Proposal~

SECTION 2: Environmental Compliance

Environmental Compliance

To allow Reclamation to assess the probable environmental impacts and costs associated with each application, all applicants must respond to the following list of questions focusing on the requirements of the NEPA, ESA, and NHPA.

The AMI project is categorically exempt and will simply replace meters and install data collection towers in previously metered areas. As a result the City of Corona does not anticipate environmental impacts associated with the proposed AMI project.

(1) Will the project impact the surrounding environment (i.e., soil [dust], air, water [quality and quantity], animal habitat, etc.)? 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.

No.

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

Not applicable.

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

No.

(4) When was the water delivery system constructed?
Not Applicable.

(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.

(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.

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

No

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

No

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

No

(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 project will entail removal of non-native and invasive weeds at the project sites.

SECTION 3: REQUIRED PERMITS AND APPROVALS

Applicants must state in the application whether any permits or approvals are required and explain the plan for obtaining such permits or approvals.

The City of Corona does not anticipate that permits will be required for the AMI Project. This is due to the fact that all meters will be installed in the place of existing City of Corona water meters. Control towers will be installed on City of Corona property and will therefore not require advanced permits or specialty approvals. All project-related approvals will be handled by City staff and will be executed in a timely and efficient manner.

SECTION 4: FUNDING PLAN AND LETTERS OF COMMITMENT

Describe how the non-Reclamation share of project costs will be obtained. Reclamation will use this information in making a determination of financial capability. Project funding provided by a source ***other than the applicant*** shall be supported with letters of commitment from these additional sources. This is a **mandatory requirement**. Letters of commitment shall identify the following elements:

(1) The amount of funding commitment
(2) The date the funds will be available to the applicant
(3) Any time constraints on the availability of funds
(4) Any other contingencies associated with the funding commitment

Cost share funding from sources outside the applicant's organization (e.g., loans or state grants), should be secured and available to the applicant prior to award. Commitment letters should be included with your project application. If a final funding commitment has not been received by the date of application, the commitment letters should be submitted by no later than July 1, 2011. Reclamation may approve an award prior to an applicant securing non-Federal cost-share funds if Reclamation determines that there is sufficient evidence and likelihood that the non-Federal funds will be available to the applicant by the start of the project. The funding plan must include all project costs, as follows:

(1) How you will make your contribution to the cost share requirement, such as monetary and/or in-kind contributions and source funds contributed by the applicant (e.g., reserve account, tax revenue, and/or assessments).

The City will provide its cost share contribution through City of Corona Department of Water and Power funds in the amount of $1,059,610 that are available immediately and will be officially appropriated as a CIP Project upon contract signing with the BOR.

(2) Describe any in-kind costs incurred before the anticipated project start date that you seek to include as project costs. Include:
None anticipated

(a) What project expenses have been incurred
None to date

(b) How have they benefitted the project
N/A

(c) The amount of the expense
N/A

(d) The date of cost incurrence

N/A

(3) Provide the identity and amount of funding to be provided by funding partners, as well as the required letters of commitment.

The City is not reliant on outside partners to help fund the AMI Project. All matching funds will be provided by the City of Corona. Commitment letters are not applicable. Please see the signed Resolution for funding assurances from the City of Corona.

(4) Describe any funding requested or received from other Federal partners. Note: Other sources of Federal funding may not be counted towards the applicant's 50 percent cost share unless otherwise allowed by statute.
None

(5) Describe any pending funding requests that have not yet been approved, and explain how the project will be affected if such funding is denied.
There are no pending funding requests.

Please include the following chart to summarize your non-Federal and other Federal funding sources. Denote in-kind contributions with an asterisk (*). Please ensure that the total Federal funding (Reclamation and all other Federal sources) does not exceed 50 percent of the total estimated project cost.

Exhibit 11: Funding Plan	
Funding Sources	***Funding Amount***
Non-Federal Entities	
1. City of Corona	**$ 1,059,610**
Non-Federal Subtotal:	**$ 1,059,610**
Other Federal Entities	None
Requested Reclamation Funding:	$ 300,000
Total Project Funding:	**$ 1,359,610**

SECTION 5: Letters of Support

John V. Rossi
General Manager

Securing Your Water Supply

January 6, 2012

The Honorable Michael L. Connor
Commissioner
Bureau of Reclamation
1849 C Street NW
Washington DC 20240-0001

Re: WaterSmart: Water and Energy Efficiency Program
City of Corona – Advanced Metering Infrastructure Program

Dear Mr. Connor:

On behalf of the Western Municipal Water District (WMWD), I encourage you to support the City of Corona's Watersmart: Water and Energy Efficiency Grant. The City intends to use the funds to install Advanced Metering Infrastructure (AMI) in the south eastern sector of the City as a first step in a larger City-wide AMI effort to promote water conservation through "smart" metering technology that provides real-time data and information to Department of Water and Power technicians. This effort will help reduce water usage by stopping leakages and water over-usage in a timely and efficient manner, thereby translating into significant water savings.

WMWD serves roughly 24,000 retail and eight wholesale customers with water from the Colorado River, State Water Project and groundwater. As a member agency of the Metropolitan Water District of Southern California (MWD), Western provides supplemental water to the City of Corona.

Converting from standard meters to AMI will also help the City of Corona further reduce its reliance on State water supplies and directly aligns with WMWD's Water Conservation and Supply Shortage Ordinance adopted in May 2009 that seeks to, "...effectively manage water demand through increased efficiency and conservation; assure the maximum beneficial use of District water supplies; and maximize efficient water use to avoid or minimize the effects of a water supply shortage to the greatest extent possible."

We look forward to working closely with the City of Corona as they implement the AMI Project to ensure consistency with regional goals and best practices. We encourage your support of this important project and urge your favorable consideration.

Sincerely,

JOHN V. ROSSI
General Manager

14205 Meridian Parkway, Riverside, CA 92518 . Main No. 951.571.7100 . wmwd.com

JOHN F. TAVAGLIONE
SECOND DISTRICT SUPERVISOR
BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE

STAFF
JOHN FIELD, Chief of Staff
DONNA JOHNSTON, Senior Legislative Assistant
KAREN CHRISTENSEN, Senior Legislative Assistant
LILIANA ALLEN, Legislative Assistant
SUSAN SWIECA, Legislative Assistant

January 6, 2012

The Honorable Michael L. Connor
Commissioner
Bureau of Reclamation
1849 C Street NW
Washington DC 20240-0001

Re: WaterSmart: Water and Energy Efficiency Program
City of Corona – Advanced Metering Infrastructure Program

Dear Mr. Connor:

On behalf of the Riverside County Board of Supervisors, I am writing to support the City of Corona's application for an Advanced Metering Infrastructure Program (AMI) to help create "smart" water savings solutions through technological advancements that will help conserve our region's precious water resources. This project will greatly help the City of Corona accurately track water usage in real-time for residential and commercial clients in the south eastern area of the City of Corona.

This will help the Corona Department of Water and Power address issues such as water leakages or over usage immediately, thereby reducing water waste and improving the City's water saving capabilities. Currently, the City is reliant on consumer calls for leaks or once a month meter readings to provide this information. This system can lead to exponential water loss if not caught in a timely manner. The proposed AMI Program will help the City respond immediately to these and other issues and help eliminate water waste.

This project will be the first step in a larger AMI City-wide effort and will help position the City of Corona to best align with state and federal mandates for water conservation such as the 20x2020 Water Conservation Plan. It will also help create a model for the region in regards to technological advancements in water management practices that translate into water and energy savings.

I urge your favorable support of the City of Corona's application for Watersmart: Water and Energy Efficiency funding to help conserve water resources in the Riverside County region.

Sincerely,

John F. Tavaglione
Second District Supervisor, County of Riverside

4080 LEMON STREET • 5TH FLOOR • P.O. BOX 1646 • RIVERSIDE, CALIFORNIA 92502-1646 • (951) 955-1020
www.rivcodistrict2.org

Santa Ana Watershed Project Authority

One Water One Watershed

OWOW Is Awarded "Top 25" Innovations In American Government By Harvard's Kennedy School

January 10, 2012

The Honorable Michael L. Connor
Commissioner
U.S. Bureau of Reclamation
1849 C Street NW
Washington DC 20240-0001

Re: WaterSmart: Water and Energy Efficiency Program
City of Corona – Advanced Metering Infrastructure Program

Dear Mr. Connor:

The Santa Ana Watershed Project Authority (SAWPA) supports the City of Corona's Watersmart: Water and Energy Efficiency Grant application that seeks funds to institute an Advanced Metering Infrastructure Program (AMI).

SAWPA is a Joint Powers Authority with a mission to maintain a sustainable Santa Ana River Watershed. Our regional planning and leadership provides a model of collaboration and cooperation utilizing integrated solutions. The proposed AMI project will help the City of Corona conserve water resources through technological advancements in metering technology. It is also in direct alignment with our *One Water One Watershed* sustainability initiative that emphasizes water use efficiency as a key element to long-term sustainability for water in the region.

We encourage you to support the City of Corona in its effort to install AMI devices in the south eastern sector of the City as a first step in a larger City-wide effort that will actualize significant water conservation savings through real-time metering capabilities. SAWPA is committed to serving as a resource and partner in this process.

Sincerely,

Celeste Cantú
General Manager

11615 Sterling Avenue, Riverside, CA 92503 • (951) 354-4220
www.sawpa.org • Fax (951) 785-7076 • onewateronewatershed@sawpa.org

GREATER CORONA VALLEY
CHAMBER OF COMMERCE

Creating a Strong Local Economy · Promoting the Community · Providing Networking Opportunities and Business Referrals
Representing the Interest of Business with Government · Promoting Political Action to Ensure a Favorable Business Climate

January 6, 2012

The Honorable Michael L. Connor
Commissioner
Bureau of Reclamation
1849 C Street NW
Washington DC 20240-0001

Re: WaterSmart: Water and Energy Efficiency Program
City of Corona – Advanced Metering Infrastructure Program

Dear Mr. Connor:

On behalf of the Corona Chamber of Commerce, I am writing to express support for the City of Corona's application to secure Watersmart: Water and Energy Efficiency Program funding to institute an Advanced Metering Infrastructure Program (AMI) in the City's south eastern sector of the City, home to Dos Lagos and the Crossings, some of the largest shopping and retail outlets in the region.

By installing and implementing advanced metering technology, the City of Corona will help bring commercial customers into the 21st century with improved water management tools that will allow businesses to better manage their bottom line when it comes to water usage and water bills. This real-time technology will go a long way in helping Corona assist long-standing businesses in becoming active participants in water conservation efforts that will help preserve the region's precious water resources.

With over 1000 business members, the Corona Chamber of Commerce is well positioned to help make a significant contribution to water conservation efforts in the City of Corona. With many large Chamber of Commerce members located in the south eastern portion of the City (including retail stores, restaurants movie theaters and more) , the AMI project will provide a significant benefit to businesses by allowing them to better manage water usage. It will also assist the City in addressing issues with over use and water leaks in a timely and efficient manner, leading to significant water savings capabilities. The Chamber of Commerce is committed to partnering with the City of Corona to bring this important project to fruition.

It is my hope that after a thorough review, the City of Corona's grant request will be given favorable consideration.

Sincerely,

Bobby Spiegel
CEO / President
951 737-3350 Work | 951 733-1836 Cell

SECTION 6: Resolution

RESOLUTION NO. 2012-002

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CORONA, CALIFORNIA AND CORONA UTILITY AUTHORITY APPROVING AN APPLICATION FOR FEDERAL ASSISTANCE FROM THE UNITED STATES DEPARTMENT OF INTERIOR, BUREAU OF RECLAMATION, WATER AND ENERGY EFFICIENCY GRANT PROGRAM, AND DIRECTING THE GENERAL MANAGER OF THE DEPARTMENT OF WATER AND POWER TO NEGOTIATE AND EXECUTE ANY AND ALL AGREEMENTS OR DOCUMENTS NECESSARY FOR THE WATER AND ENERGY EFFICIENCY GRANT PROGRAM

WHEREAS, the United States Department of Interior, Bureau of Reclamation, makes financial assistance available to local agencies through the Water and Energy Efficiency Grant Program; and

WHEREAS, the City of Corona has a project which is eligible for financial assistance through the Water and Energy Efficiency Grant Program: the installation of AMI Meters; and

WHEREAS, if financial assistance is awarded through the Water and Energy Efficiency Grant Program, the City of Corona is required to provide 50 percent of the project costs as a local match; and

WHEREAS, the Bureau of Reclamation requires an official resolution certifying review and support of application(s) by the applicant's governing board before submission of said application(s), providing the identity of the official with legal authority to enter into any necessary agreements, verifying that the City is capable of providing the local match, and verifying that the applicant will work within deadlines established for the Water and Energy Efficiency Grant Program; and

WHEREAS, the City Council and the Board of Directors of the Corona Utility Authority wish to seek financial assistance through the Water and Energy Efficiency Grant Program.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Corona, California, as follows:

SECTION 1. The City Council and Board of Directors of the Corona Utility Authority hereby support and authorize the submittal of an Application for Federal Assistance to

the United States Department of Interior, Bureau of Reclamation, for City projects eligible for the Water and Energy Efficiency Grant Program.

SECTION 2. The General Manager of the City of Corona Department of Water and Power is hereby directed to deliver a copy of this Resolution to the United States Department of Interior, Bureau of Reclamation, and is hereby authorized and empowered, in the name of the City of Corona, to work within timelines established for the Water and Energy Efficiency Program and to execute all necessary agreements and documents to implement and carry out the purposes of this Resolution, including but not limited to any Applications for Federal Assistance, any Funding Agreements, and any Cooperative Agreements required by the United States for the Water and Energy Efficiency Grant Program.

SECTION 3. The City of Corona is capable of providing the 50 percent matching funding required for the City projects eligible for the Water and Energy Efficiency Grant Program.

PASSED, APPROVED AND ADOPTED this 4th day of January, 2012.

Mayor of the City of Corona, California

ATTEST:

City Clerk of the City of Corona, California

CERTIFICATION

I, Lisa Mobley, Chief Deputy City Clerk of the City of Corona, California, do hereby certify that the foregoing Resolution was regularly introduced and adopted by the City Council of the City of Corona, California, at an adjourned meeting thereof held on the 4th day of January, 2012, by the following vote:

AYES:	**MONTANEZ, NOLAN, SCOTT, SKIPWORTH, SPIEGEL**
NOES:	**NONE**
ABSENT:	**NONE**
ABSTAINED:	**NONE**

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the City of Corona, California, this 4th day of January, 2012.

City Clerk of the City of Corona, California

[SEAL]

SECTION 7: Budget Proposal

Exhibit: 12 Proposed Budget						
Budget Item Description	**Computation**			**Recipient Funding**	**Reclamation Funding**	**Total Cost**
	$/Unit	**Unit**	**Quantity**			
Salaries and Wages						
Not Applicable				$0	$0	$0
Fringe Benefits						
Not Applicable				$0	$0	$0
Travel						
Not Applicable				$0	$0	$0
Equipment						
Server	$60,000	Lump Sum	1			$60,000
Software	$75,000	Lump Sum	1			$75,000
Control Tower	$50,000	Each	2			$100,000
Support Control Tower	$7,200	Each	1			$7,200
Supplies/ Materials						
Not Applicable				$0	$0	$0
Contractual /Construction						
Purchase and Installation of 5,560 AMI Meters	*see budget narrative		5,560			$1,117,410
Environmental						
Not Applicable				$0	$0	$0
Other						
Not Applicable				$0	$0	$0
Indirect						
Not Applicable				$0	$0	$0
Total Project Costs				$1,059,610	$300,000	$1,359,610
Percentage Contribution				78%	22%	100%

BUDGET NARRATIVE

a. Salaries and Wages

N/A

b. Fringe Benefits

N/A

c. Travel

There are no travel costs associated with this project.

d. Equipment

Equipment costs for the AMI Project are estimated to cost $242,200 and will include one (1) AMI server for a cost of $65,000 and AMI software that will be used to create a user interface for DWP staff and DWP water customers to be able to access data online in real-time for $70,000. Two (2) data control towers will be purchased for $50,000 each for a total of $100,000 including installation. Support towers will be purchased at a value of $7,200 to ensure that all data collection activities are able to be efficiently executed.

e. Materials and Supplies

There are no material or supply costs associated with this project.

f. Contractual

The work to be conducted by the AMI Meter consultant is described as follows:

AMI Meter Purchase and Installation

A total of 5,560 AMI meters will be purchased and installed for a total value of $1,117,410. An AMI contract will be awarded and the contractor will first conduct a propagation study to determine the final number of meters needed and the placement of the tower and servers to help provide 24/7 access to the AMI smart meter data and information. The contractor will purchase all requisite meters and install them in the proposed AMI service territory. The cost breakdown for meter purchase and installation is estimated as follows:

Exhibit 13:
AMI Meter Purchase Costs

AMI Meter Size	Qty	Price/Each	MXU	Tax 7.75%	Labor to Install	Total
5/8"	729	$120.00	$150.00	$20.15	$26.50	$87,676.65
3/4"	2,361	$137.00	$150.00	$21.47	$26.50	$323,654.97
1"	1,950	$197.00	$150.00	$26.12	$26.50	$384,352.62
1 1/2"	206	$405.00	$150.00	$42.24	$45.00	$83,667.24
2"	263	$590.00	$150.00	$56.58	$45.00	$155,421.58
2" Turbo	20	$962.00	$150.00	$74.56	$45.00	$19,509.56
3"	22	$1,649.00	$150.00	$139.43	$200.00	$36,767.43
4"	9	$2,864.00	$150.00	$233.59	$200.00	$26,359.59
Totals:	5,560					$1,117,410

g. Environmental Costs

There are no environmental costs associated with this project as the project is considered categorically exempt

h. Other Costs

There are no other costs associated with this project.

i. Indirect Costs

There are no indirect costs associated with this project.