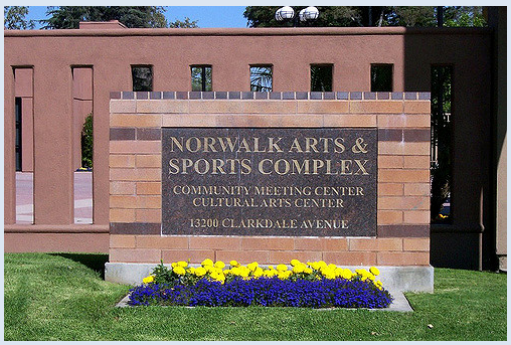
With Support from:

- Golden State Water Company
- Liberty (Park Water) Utilities Corporation



WBIC
INSTALLATION PROJECT

WaterSMART Grants:
Small-Scale Water Efficiency

PREPARED FOR:
Bureau of Reclamation
Financial Assistance Operations
P.O. Box 25007
Denver, CO 80225
303-445-3697

PREPARED BY:
City of Norwalk
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May 2, 2017

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SECTION 1. TECHNICAL PROPOSAL

A. Executive Summary

Date: May 2, 2017
Applicant Name: City of Norwalk (Norwalk Municipal Water System)
City, County, State: Norwalk, Los Angeles County, California

Project Summary: The City of Norwalk proposes to install weather-based smart controller irrigation systems in eight of its 12 public parks. This project will address Task Component Area C.3.1, Landscape Irrigation Measures, by installing Weather-Based Irrigation Controllers (WBIC). According to the U.S. Environmental Protection Agency WaterSense website, as much as 50 percent of outdoor landscape water is wasted due to overwatering caused by inefficiencies in irrigation methods and systems. Irrigation control technologies can significantly reduce overwatering by applying water only when plants need it. The City of Norwalk has already obtained quotes from Calsense Resource Management System (Calsense) for the equipment needed for each of the eight parks. Upon purchase of equipment, City staff will be responsible for replacing the existing outdated irrigation equipment with new, more efficient Calsense controllers, sensors, and accessories. The City requests $74,500 (50%) from the Bureau of Reclamation and will contribute a $74,838 (50%) match. The installation of the WBIC systems in the designated parks will be very streamlined and is anticipated to take approximately 12 months to complete. Assuming an award notification in June 2017, and an executed contract by September 2017, it is estimated that all work will be completed by September 2018.

This project is not located on a Federal facility.

B. Background Data

The City of Norwalk is a suburban city located in the Central Basin of Los Angeles County with a population of 107,096. It is located 17 miles southeast of downtown Los Angeles and is the 58th most-densely populated city in California, covering a land area of 9.8 square miles. The City is bordered by the City of Downey on the north, the City of Santa Fe Springs on the north and east, the Cities of Cerritos and Artesia on the south, and the San Gabriel River on the west (please see Figure 1). The City was incorporated in 1957 and is primarily a residential community, with single-family homes representing 50 percent of its total land area. Commercial uses comprise approximately six percent of the City's incorporated land, and manufacturing and industrial uses constitute just under five percent of City territory.

Figure 1: Geographic Location. *The City of Norwalk is located 17 miles southeast of downtown Los Angeles. It is fully built out with a population of over 107,000 residents.*

Three primary retail water agencies service the City: 1) The city-owned Norwalk Municipal Water System (NMWS); 2) Golden State Water Company (GSWC); and 3) Liberty (Park Water) Utilities. The service area of each is identified below in Figure 2.

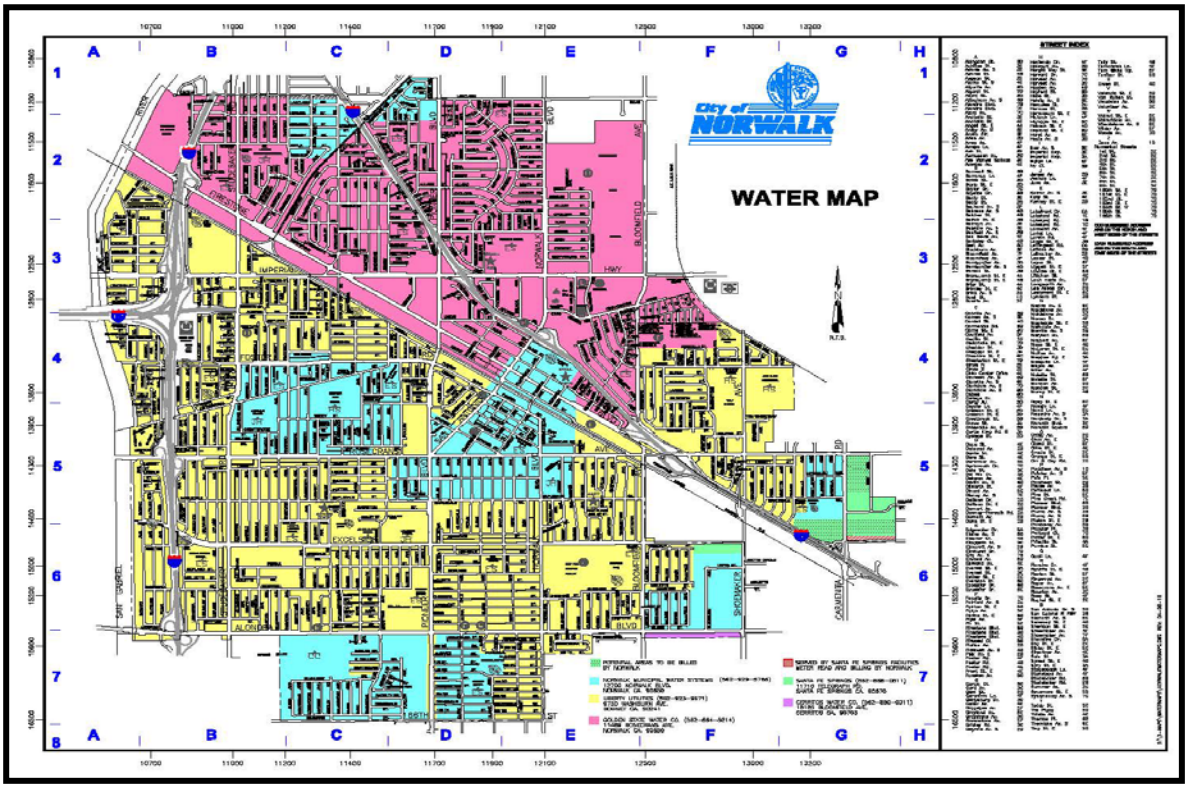

Figure 2: Norwalk Water Service Areas. *Three water districts service the City of Norwalk:*

1) ***Blue*** – *Norwalk Municipal Water System (NMWS)*
2) ***Yellow*** – *Liberty (Park Water) Utilities*
3) ***Pink*** - *Golden State Water*

Source of Water: Water for all three retail agencies includes imported water, local groundwater, and recycled water. Imported water is purchased by all three from the Central Basin Municipal Water District (CBMWD), which is a member agency of the Metropolitan Water District of Southern California (Metropolitan). Metropolitan is the wholesale supplier of imported water from the Colorado River Aqueduct (CRA) and the State Water Project (SWP), both of which are Bureau of Reclamation Facilities.

Norwalk Municipal Water System (NMWS)

According to the City of Norwalk's *2015 Urban Water Management Plan* (UWMP)[1], the NMWS is operated by the City and has a service area of over 1,331 acres (combined). NMWS' has 5,367 service connections within its service boundaries as well as in portions of the City of Artesia and a small unincorporated Los Angeles County area. Existing water system facilities include 55.3 miles of distribution water mains, three operating groundwater wells, seven connections with

[1] City of Norwalk 2015 Urban Management Plan

the City of Santa Fe Springs and City of Cerritos, one imported water connection, nine emergency interconnections, and five pressure regulating stations. NMWS serves 18,361 current water users with a projected increase of 4.6 percent to 19,298 in 2040. In 2015, NMWS received 1,323 Acre Feet (AF) of imported water representing approximately 56 percent of the NMWS total water supply. NMWS supplements its demands for imported water with groundwater and recycled water extracted from the Central Groundwater Basin (Basin). NMWS also has three operating wells. In 2015, NMWS had a total of 2,273 AF per year of water rights to pump from the Basin, with actual volume pumped at 2,365 AF.

Table 1: NMWS 2015 Actual Water Supplies (AF)

Water Supply	Additional Detail on Water Supply	2015	
		Actual Volume	Water Quality
Imported Water	CBMWD	1,323	Drinking Water
Groundwater	Central Groundwater Basin	960	Drinking Water
Recycled Water	CBMWD	82	Recycled Water
	TOTAL	2,365	

2015 actual demand for potable and raw water use is 2,282 AF. Approximately 91.4 percent of the NMWS' water demand is from single and multifamily residential use. The remaining 7.6 percent of total demand is comprised of commercial, institutional, and industrial use along with irrigation for dedicated landscape and agriculture. Recycled water is primarily used for irrigation purposes at schools and one City park. Dedicated landscape and agricultural demand account for about 1 percent of total the NMWS total water demand. Through continued water conservation efforts, including Norwalk's commitment to investing in environmentally-friendly technologies, the demand on imported water is anticipated to decrease over the next two decades. The 2015 UWMP estimates that by 2040, NMWS water supply mix will change so that local groundwater will be the main source of water supply.

Table 2: NMWS Projected Water Supplies (AF)

Water Supply	**Additional Detail on Water Supply**	**Projected Water Supply**				
		2020	2025	2030	2035	2040
Groundwater	Central Groundwater Basin	1,595	1,719	1,719	1,719	1,719
Imported Water	CBMWD	405	281	281	281	281
Recycled Water	CBMWD	90	90	90	90	90
	TOTAL	2,090	2,090	2,090	2,090	2,090

Golden State Water Company (GSWC)

Golden State Water Company (GSWC) is the second water company servicing the City of Norwalk (noted in Figure 2). GSWC is an investor-owned public utility company which owns 39 water systems throughout California regulated by the California Public Utilities Commission (CPUC). According to GSWC's 2015 Urban Water Management Plan, imported water and recycled water are purchased from the Central Basin Municipal Water District (CBMWD), and groundwater for the Norwalk system is supplied by eight active GSWC-owned wells in the Central Sub-basin of the Coastal Plain of Los Angeles County Groundwater Basin. See Table 3 for summary.

Table 3: GSWC 2015 Actual Water Supplies (AF)			
Water Supply	Additional Detail on Water Supply	2015	
		Actual Volume	Water Quality
Imported Water	CBMWD	2,391	Drinking Water
Groundwater	Central Groundwater Basin	1,860	Drinking Water
Recycled Water	CBMWD	137	Recycled Water
TOTAL		4,389	

GSWC purchases imported water from CBMWD for all its system and has a 10-year purchase agreement, through Metropolitan, until December 31, 2024, for 11,422 AFY (total 5-year commitment of 38,073 AF). GSWC has an APA (Allowed Pumping Allocation) of 16,439 AFY in the Central Basin divided between all their systems. GSWC operates several groundwater wells within the Norwalk System, and leases groundwater rights in the Central Basin on an as-needed basis. The GSWC Norwalk System currently serves 45,514 water users with an expected increase of eight percent, or to 49,054, by 2040. The service area is primarily residential, with some commercial and industrial land use. In 2015, approximately 69 percent of the Norwalk System water demand was for single and multifamily residential use. The remaining 31 percent of total demand is comprised of commercial, institutional, industrial, landscape, and losses. 2015 actual demand for potable and raw water by use type was 4,251 AF. The GSWC Norwalk System has 9,519 municipal connections serving most residents in the City of Norwalk, and portions of the City of Santa Fe Springs, the City of La Mirada, the City of Downey, and a portion of Los Angeles County unincorporated area. As mentioned above, GSWC's main source of water supply is imported water and groundwater. Table 4 provides the potable and raw water projections and the recycled water connections for 5-year increments to 2040.

Table 4: GSWC Norwalk System Projected Water Supplies (AF)						
	2015	2020	2025	2030	2035	2040
Potable and Raw Water	4,251	5,119	5,168	5,216	5,264	5,313
Recycled Water	137	262	262	262	262	262
TOTAL Water Demand	4,388	5,381	5,430	5,478	5,526	5,575

Liberty (Park Water) Utilities Corporation

Liberty Utilities (Liberty) is the third water system to service the City of Norwalk (noted in Figure 2). It is an investor-owned public water utility providing retail water service to approximately 28,000 connections in Norwalk as well as the Cities of Lynwood and Bellflower. the 2015 *Urban Water Management Plan*[2] for Liberty Water includes all three cities' systems as one retail water service. In 2015, Liberty supplied a total of 9,579 AF of water to its service area, which included 6,059 AF of imported water, 3,520 AF of groundwater, and 208 AF of recycled water. Liberty currently owns 822.3 AF of groundwater rights and leases between 2,500-3,571 AF per year in the past five years (2010-2015). Liberty plans to increase its purchases of groundwater in future years and reduce purchases of imported water. Liberty currently serves 126,636 water users with the population projected to increase in 2040 to 129,434. In 2015,

[2] Liberty Utilities (Park Water) 2015 Urban Water Management Plan.

approximately 98 percent of the service connections were residential and commercial. Industrial, institutional, government, and fire protection connections account for approximately 2 percent of Liberty's total connections. In the past, Liberty has sold water periodically to the City of Norwalk through an interconnection. Liberty has 27,330 potable water connections and 25 recycled water accounts. CBMWD's regional water recycling program, called the "Central Basin Water Recycling Project," is comprised of two distribution systems, the E. Thornton Ibbetson Century Water Recycling Project, and the Esteban Torres Rio Hondo Water Recycling Project, along with three pumping stations and a reservoir. This system provided an average of 4,800 acre-feet per year of recycled water to more than 200 industrial, commercial, and landscape irrigation sites for the last five years. This system provides the Liberty service area with recycled water. Current water demand is estimated at 4,388 AF per year. Future 2040 water demand is estimated at approximately 10,615 AF. Demand estimates do not include reductions from demand management practices.

Past Relationships with Bureau of Reclamation

As previously mentioned, the NMWS, along with GSWC and Liberty, currently have a relationship with the Bureau of Reclamation (BOR) through purchase of imported water from the CBMWD, which is a member agency of the Metropolitan. Metropolitan is the wholesale supplier of imported water from the CRA and the SWP, both of which are Bureau of Reclamation Facilities. The City of Norwalk also has a relationship with the BOR through a 2014 Proposition 84 grant awarded to the Los Angeles Gateway Region Integrated Regional Water Management (IRWM) Joint Powers Authority (JPA) for a pilot program to install Advanced Meter Readers (AMR) throughout the Los Angeles Region. As part of the IRWM JPA, the City will install 650 AMR's to replace aged meters by the end of 2017. The AMR's will allow remote access for meter reading activities, reduce meter reading times, and improve efficiencies.

C. Project Description

The proposed project will install Weather-Based Irrigation Controllers (WBICs) in eight of the City's 12 city-owned public parks (See Figure 3 and Table 5 on the next page for details). The City anticipates using Calsense Resource Management System (Calsense) to purchase the WBIC systems. Calsense develops custom irrigation solutions for government organizations and was selected after conducting a study using a Calsense system at one of the City's parks, Ramona Park, which was very successful. The City is also currently installing a Calsense controller and rain bucket at City Hall. System upgrades for the proposed project will include a model CS3000 with wall-mount enclosure (base station will vary with size of area), stubby antenna hole, support for a single conventionally-wired POC (Point of Connection), transient protection, and field-replaceable modules. This system will support up to 48 conventionally-wired stations with additional 8-station modules, cellular stubby antenna with 3-ft. antenna cable, 2" PVC 80 tee-mounted Flow Meter, and a cellular modem to provide communication with cloud-based Command Center Online web application with antenna and Calsense Data Access Service plan.

Problem: The existing irrigation systems at each of the eight Norwalk parks are inefficient, manually-programmed systems with clock timer controllers that do not account for key factors such as changing weather or soil moisture. Experts estimate that as much as 50 percent of

outdoor water use in the United States is wasted due to overwatering caused by inefficiencies in irrigation methods and systems.[3] Irrigation control technologies can significantly reduce overwatering by applying water only when plants and turf need it. Irrigation water is also wasted due to evaporation, wind, or runoff, often caused by improper irrigation system design, installation, maintenance, or scheduling.

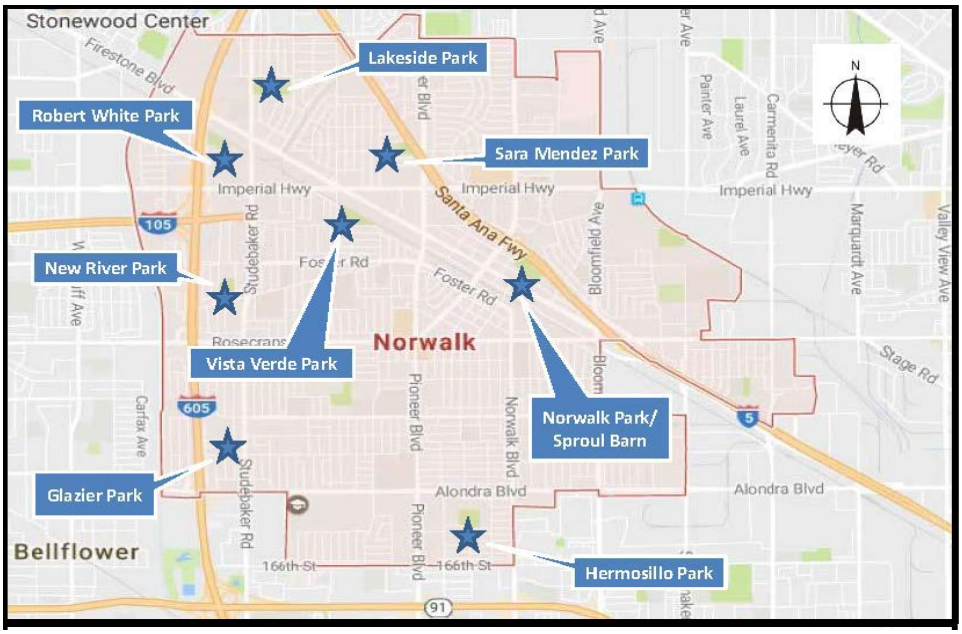

Figure 3: Project Locations. *The proposed project will install weather-based irrigation systems in eight of the City's 12 city-owned public parks and facilities.*

Expected Outcome: With BOR assistance, eight of the City's 12 public parks will be upgraded with WBICs. As noted previously, industry standards indicate the City could save up to 50 percent of water used, depending upon annual weather variations. As an example, installation of a WBIC in Norwalk's Ramona Park in 2015 saved the City approximately 1.3 million gallons (37 percent) and $4,000 in 2016.[4] This can translate into a significant amount of water savings to help the City to meet its 20x2020 water conservation goals.

Table 5: Project Locations

PARK	LOCATION	WATER SYSTEM
Glazier Park	10810 Excelsior Drive	Liberty Utilities
Hermosillo Park	11959 162nd Street	Liberty Utilities
Lakeside Park	11620 Studebaker Road	Golden State
New River Park	13432 Halcourt Avenue	Liberty Utilities
Sara Mendez Park	11660 Dune Street	Golden State
Norwalk Park/Sproul Barn/ Teen Center	13000 Clarkdale Avenue/ 12203 Sproul Street	Norwalk Water
Vista Verde Park	11459 Ratliffe Street	Liberty Utilities
Robert White Park	12120 Hoxie Avenue	Liberty Utilities

[3] https://www3.epa.gov/watersense/products/controltech.html.

[4] **Ramona Park Pilot Program**: City installed WBICs 11/15. Based on consumption data after one year (11/16), the City saved over 1.3 million gallons (or 37%) using the new irrigation controllers.

Scope of Work: The project scope of work (SOW) is relatively simple and streamlined, and is detailed in Evaluation Criteria C, Project Implementation. The City will purchase Calsense CS3000 controllers, sensors, and accessories (See Figure 4 for details) and replace all existing irrigation controllers at eight City parks. The scope of work includes removing all existing equipment; installing new controllers, antennas, and related components; furnishing and installing antenna cable; furnishing and installing new conduit, wire, and trenching as needed; furnishing and installing new gate valves; and programming the systems. The City will then monitor the new systems for one year to provide a comparison of current water usage vs. historical water data.

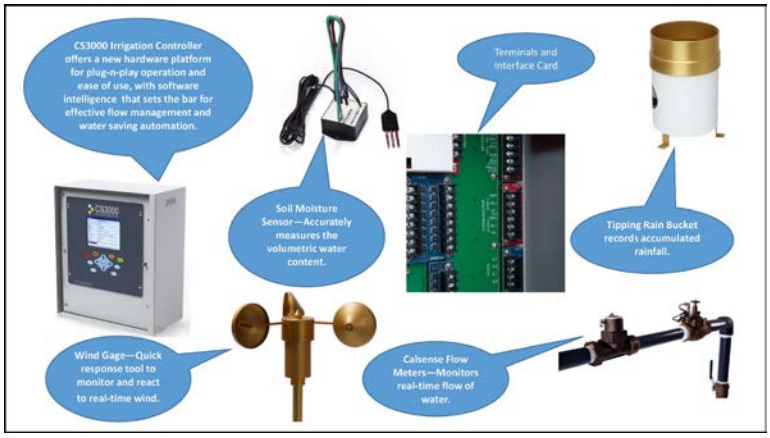

Figure 4: Calsense CS 3000 Controllers, Sensors, and Accessories.

D. Evaluation Criteria

Evaluation Criterion A—Planning Efforts Supporting the Project

The City of Norwalk has long recognized the evolving need for water planning and water conservation and has responded to these needs and concerns by updating the City's *General Plan* as well as other key documents that make the proposed project a priority.

In 1991, the City Council adopted an *Emergency Water Conservation Plan*, Ordinance No. 1378, which established a staged water conservation program that encouraged reduced water consumption within the City through conservation, enabled effective water supply planning, assured reasonable and beneficial use of water, prevented waste of water, and maximized the efficient use of water within the City.

Norwalk's *2015 Urban Water Management Plan* emphasizes the implementation of water efficiency programs including installation of WBICs as a critical water saving measure (pg. 4-4). The City's *General Plan* also includes measures promoting water conservation in both City operations and in private development to minimize the need for the development of new water sources and facilities. The General Plan also states that the City shall continue to enforce ordinances which promote water conservation in existing facilities.

Finally, in Norwalk's *2020 Vision: An integrated strategic action plan to guide the City's progress and priorities to 2020,* the City's Core Strategy #6, Objective B is specific to water conservation and efficiency. Objective B: Support and invest in energy-efficient and environmentally-friendly technologies to develop sustainable infrastructure, reduce City's carbon footprint, and lower long-term costs. Suggested Actions include utilizing smart technologies by studying infrastructure to identify technological upgrades in wireless access and monitoring systems.

Evaluation Criterion B—Project Benefits

Reduces Water Use: The overriding benefit of installing WBICs is that this technology will help significantly reduce overwatering by applying water only when plants and turf need it and allow for automated system modifications during rain events. The controllers are monitored through the City's iPads and will tie into the City Hall rain bucket. Staff can automatically turn off the system during rain events vs. having to go out to parks to manually adjust the systems. Based on industry standards, up to 50 percent of annual water savings may be achieved, depending upon weather variations.[5] The City currently estimates it could save up to 37 percent per year to irrigate the eight parks based on the Ramona Park Pilot Project conducted in 2015/2016.[6]

Reduces Regional Water Demand: The project will also result in water savings for Metropolitan and CBMWD as the City will not need to purchase as much imported and/or groundwater.

Reduces Operations and Maintenance Costs: Implementation of WBICs significantly reduces O&M costs with central wireless controllers, thereby eliminating the need for staff to be onsite to manage the irrigation system.

Helps Achieve Water Conservation Requirements: The project supports the City's commitment to, and compliance with, the Water Conservation Act of 2009, SBx7-7, to reduce per capita water use by 20 percent by the year 2020.

Evaluation Criterion C—Project Implementation (15 points)

The City evaluated each of the parks to determine feasibility and use of WBIC controllers. Existing park designs were reviewed for irrigation head coverage, conduit and irrigation equipment condition and controller location. City landscaping staff will work closely with the turf maintenance contractor to verify coverage and proper operation of WBIC controllers, as well as monitoring requirements with City-issued iPads.

Project Implementation

The proposed SOW to install WBICs in eight of the City's 12 parks is relatively simple as the proposed equipment has already been identified and City staff will be utilized to install the systems at each park. Equipment will be purchased from a distributor for Calsense Resource Management System. Calsense will be available for any needed guidance throughout installation. No easements, permits, or approvals are required for this project. The scope of work will take place on City-owned land and all necessary construction safety protocols will be followed. The major project tasks include the following:

Task 1: Project/Grant Management. This task will focus on establishing the grant agreement with the BOR, attending and preparing for requested meetings with BOR, overseeing the

[5] https://www3.epa.gov/watersense/products/controltech.html

[6] **Ramona Park Pilot Program**: City installed WBICs 11/15. Based on consumption data after one year (11/16), the City saved over 1.3 million gallons (or 37%) using the new irrigation controllers.

contract and implementation progress, completing reporting requirements, closing out the grant, and maintaining all records for at least three years after project closeout.

Deliverables: 1) Executed grant agreement; 2) Meeting agendas and minutes; 3) Requests for reimbursement; 4) Quarterly and final reports; and 5) Audit reports (if applicable).

Task 2: Materials Procurement and Installation. This task includes procurement of the Calsense Weather-Based Irrigation Controllers and installation of all equipment at each of the eight parks.

Task 2.1: Kick-off Meeting. City staff will hold a kick-off meeting with the Calsense vendor to refine the timeline, materials required by park, and address expectations. This task will include final determination of Calsense equipment needed for each park location (based on previous estimates). Calsense will submit an Irrigation Controller Project Sheet to the City for the project locations. This includes a final review of each site to determine: 1) the number of controllers needed and how many stations used on each controller; 2) the size of site; 3) Point of Connection (POC) for each site; 3) the minimum flowing station in Gallons Per Minute (GPM) and the maximum flowing station, to determine the size of the flow meters and master valves; 4) determination of trenching or use of 2-wire to help offset any trenching cost; 5) installation needs for each location; and 6) final quote, basic scope of work, and parts list for each park.

Task 2.2: Purchase Materials. The City will review the Irrigation Controller Project Sheet, and finalize a purchase order for the materials needed to implement the project.

Task 2.3: Install Weather-Based Irrigation System. City staff will install all project system upgrades at eight parks based on agreed-upon timeline and park requirements. The WBIC Calsense system will vary by location/acreage. System upgrades include a model CS3000 with wall-mount enclosure (base station will vary with size of area), stubby antenna hole, support for a single conventionally-wired POC (Point of Connections), transient protection, and field-replaceable modules. This system will support up to 48 conventionally-wired stations with additional 8-station modules, cellular stubby antenna with 3-ft. antenna cable, 2" PVC 80 tee-mounted Flow Meter, and a cellular modem to provide communication with cloud-based Command Center Online web application with antenna and Calsense Data Access Service plan.

Task 2.4: Test and Refine System. City staff, in partnership with Calsense, will conduct final inspections and assessments at each park to test and refine the system to ensure operational startup performance has been completed successfully.

Deliverables: 1) Irrigation Controller Project Sheet; 2) City Purchase Order; 3) Invoices for purchased products; 4) Inspection checklist identifying schedule of installation and verifying all installation activities completed; and 5) Photographs of installed materials.

Task 3: Performance Monitoring. The City will conduct a pre- and post-assessment of the water savings resulting from the project. The water savings estimates will be based on historical water records for each of the eight parks over a one-year period compared to the new water usage for a one-year period. The number of rain days will be considered for each period to compare "like" irrigation periods.

Deliverables: 1) Report on historical vs. post-project water usage by park.

Project Schedule. The project is estimated to take approximately 12 months, with a completion date of September 2018, assuming a start date of September 2017. The City has estimated the tasks and schedule based on the tasks/time required for completion of similar projects.

Task No.	Timeline Major Project Tasks	*2017*				*2018*			
		1	*2*	*3*	*4*	*1*	*2*	*3*	*4*
0	BOR Award (June 2017)		■						
1	Project/Grant Management (Sept 2017-Sept 2018)			■	■	■	■	■	■
2	Procurement/Installation (Sept 2017-Sept 2018)			■	■	■	■	■	
2.1	Kick-off Meeting (Oct 2017)				■				
2.2	Purchase Materials (Nov 2017)				■				
2.3	Install systems at each of eight parks (Dec 2017-Sept 2018				■	■	■	■	
2.4	Test and Refine (Jan 2018-Sept 2018)					■	■	■	
3	Performance Monitoring (Jan 2018-Dec 2018)					■	■	■	■

Evaluation Criterion D—Nexus to Reclamation (15 points)

The City of Norwalk is associated with Reclamation in several areas, including the BOR-funded projects mentioned previously.

Source of Water: Water for all three retail agencies serving the City includes 16,113 AFY of imported water purchased from the CBMWD, which is a member agency of the Metropolitan. Metropolitan is the wholesale supplier of imported water from the CRA and the SWP, both of which are BOR Facilities.

Conservation Education: Another Reclamation nexus is the City's participation in water conservation programs with CBMWD and Metropolitan. CBMWD's public information efforts consist of a variety of programs and practices, such as gardening workshops, median/lawn signs, and mail inserts that are used to educate the public about water conservation. Conservation literature is provided to the public at all City facilities as well as distributed at various one-day programs and community events. CBMWD also provides the community with a Speakers Bureau through which CBMWD's Board of Directors and staff work with local civic organizations and service clubs to provide information on a variety of programs and projects that promote conservation. Additionally, CBMWD provides education through its website, an interactive blog, and various publication materials.

Section 2. Environmental and Cultural Resources Compliance

(1) *Will the proposed project impact the surrounding environment? Please briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area.* The proposed project is a weather-based irrigation system upgrade in eight existing city parks. The project consists of changing-out existing controllers. No negative impacts are anticipated.

(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 proposed project is a weather-based irrigation system upgrade in eight existing city parks. The project consists of changing-out existing controllers. No negative impacts are anticipated.

(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 proposed project may have.* The proposed project is a weather-based irrigation system upgrade in eight existing city parks. The project consists of changing-out existing controllers. No negative impacts are anticipated.

(4) *When was the water delivery system constructed?* Norwalk was incorporated in the late 1950's to service the 17 square-mile developing City. At that time, water distribution was provided by seven separate wholesale water companies. Recognizing the benefits of a consolidated water distribution system, the City began purchasing the existing water facilities, which formed the basis of the present NMWS, Golden State, and Liberty Utilities.

(5) *Will the proposed 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.* The proposed project is a weather-based irrigation system upgrade in eight existing city parks. The project consists of changing-out existing controllers. No negative impacts are anticipated.

(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.* The proposed project is a weather-based irrigation system upgrade in eight existing city parks and will not affect any buildings, structures, or features listed under the National Register of Historic Places.

(7) *Are there any known archeological sites in the proposed project area?* The proposed project is a weather-based irrigation system upgrade in eight city parks. The project consists of changing-out existing controllers and will not affect any known archeological sites.

(8) *Will the proposed project have a disproportionately high and adverse effect on low income or minority populations?* The proposed project is a weather-based irrigation system upgrade in eight city parks. The project consists of changing-out existing controllers and is expected to have a POSTIVE effect on low income and minority populations as it will help to conserve water usage and reduce overall water costs.

(9) *Will the proposed project limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands?* The proposed project is a weather-based irrigation system upgrade in eight city parks. The project consists of changing-out existing controllers and will not limit access to use of Indian sacred sites or result in any impacts on tribal lands.

(10) *Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?* The proposed project is a weather-based irrigation system upgrade in eight city parks. The project consists of changing-out existing controllers and will not contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species.

Section 3. Required Permits or Approvals. No permits or approvals are required for this project. All activities within the scope of work take place on non-Federal, City-owned land.

Section 4. Official Resolution. Please see signed resolution in Appendix A.

Section 5. Project Budget

A. Funding Plan. Norwalk will fund all non-Reclamation share of project costs through City resources. Norwalk will provide $3,750 in cash through Department of Public Services Budget and another $71,089 in in-kind services. The City has not incurred any previous costs on this project; has no funding partners; and has no pending funding requests for the project.

Table 6: Summary of Non-Federal and Federal Funding Sources

Funding Sources	Funding Amount
Non-Federal Entities	
1. City of Norwalk (Cash Contribution)	$3,750
2. City of Norwalk (In-Kind Funding)*	$71,089
Non-Federal Subtotal (50%):	$74,838
Other Federal Entities	
1. Not Applicable	$0
Other Federal Subtotal:	$ 0
Requested Reclamation Funding (50%):	$74,500
Total Funding:	$149,338

B. Letters of Commitment. While there are no other funding partners for this project, the City has obtained letters of support from Golden State and Liberty Utilities, which, along with NMWS, supply water to the proposed project sites. Please see Appendix B.

3-ft. antenna cable, 2" PVC 80 tee-mounted Flow Meter, and a cellular modem to provide communication with cloud-based Command Center Online web application with antenna and Calsense Data Access Service plan. The cost varies with the size of the acre feet of turf being updated with the WBIC Calsense system. The costs provided by Calsense are listed in Table 10.

Table 10: Equipment Costs by Project Park Location	
Glazier Park	$6,300
Hermosillo Park	$9,985
Lakeside Park	$9,450
New River Park	$8,400
Sara Mendez Park	$6,825
Norwalk Park/Sproul Barn/Teen Center	$19,440
Vista Verde Park	$9,975
Robert White Park	$7,875

Due to application page limitations, Calsense quotes can be provided to BOR for further reference upon request.

Contractual. Not Applicable.

Environmental and Regulatory Compliance Costs. Not Applicable. The City anticipates submitting a Categorical Exclusion as the project consists of changing-out existing controllers.

Other Expenses. Not Applicable.

Indirect Costs. Not Applicable.

Total Cost. Total cost for implementation of the project is anticipated to be $149,338.

E. Budget Form. The SF-424C Budget Form is provided under separate cover.

End of 15-page narrative

Appendix A

Signed Resolution

RESOLUTION NO. 17-17

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF NORWALK APPROVING THE APPLICATION FOR GRANT FUNDS FOR THE BUREAU OF RECLAMATION'S WATERSMART GRANTS: SMALL-SCALE WATER EFFICIENCY PROJECT FOR FISCAL YEAR 2017 FOR THE CALSENSE CONTROLLER INSTALLATION PROJECT

WHEREAS, the City of Norwalk has prepared an application to apply for federal funding from the United States Department of the Interior, Bureau of Reclamation (BOR) to assist in the funding of the Small-Scale Water Efficiency Project; and

WHEREAS, the funding opportunity provided by BOR through their Grant Program entitled "WaterSMART Grants: Small-Scale Water Efficiency Grants for FY 2017" Funding Opportunity Announcement No. is BOR-DO-17-F011; and

WHEREAS, the Calsense Controller Installation Project will install efficient irrigation systems with smart controllers that improve water system efficiency and reduce water usage in City of Norwalk Parks.

WHEREAS, the Applicant, if selected, will enter into an agreement with BOR to carry out the project.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF NORWALK HEREBY DETERMINES, FINDS, AND RESOLVES AS FOLLOWS:

Section 1. The City approves the filing of an application for the Project identified in the application.

Section 2. The City certifies that it understands the assurances and certification in the application.

Section 3. The City certifies that it will have sufficient Funds to operate and maintain the Project consistent with the requirements; or will secure the resources to do so.

Section 4. The City certifies that it will comply with all provisions of Section 1771.5 of the California Labor Code.

Section 5. If applicable, the City certifies that the Project will comply with any laws and regulations including, but not limited to, the *California Environmental Quality Act* (CEQA), legal requirements for building codes, health and safety codes, disabled access laws, and, that prior to commencement of construction, all applicable permits will have been obtained.

Section 6. The City appoints the City Manager, or designee, as agent to conduct all negotiations, execute and submit all documents including, but not limited to applications, agreements, payment requests and so on, which may be necessary for the completion of the aforementioned Project.

Section 7. The Mayor, or presiding officer, is hereby authorized to affix his signature to this Resolution signifying its adoption by the City Council of the City of Norwalk and the City Clerk, or her duly appointed assistant, is directed to attest thereto.

APPROVED AND ADOPTED on this 18th day of April 2017.

LUIGI VERNOLA
MAYOR

ATTEST:

I, **Theresa Devoy**, City Clerk of the City of Norwalk, California **DO HEREBY CERTIFY** that the foregoing Resolution, being **Resolution No. 17-17** has been duly signed by the Mayor and attested by the City Clerk, all at a regular meeting of the Norwalk City Council, held April 18, 2017, and that the same was approved and adopted by the following vote to wit:

AYES: **Councilmembers Ayala, Perez, and Rios, Vice Mayor Shryock, and Mayor Vernola**
NOES: **None**
ABSENT: **None**

THERESA DEVOY, CMC
CITY CLERK

Appendix B

Letters of Support

Golden State Water

Liberty (Park Water) Utilities

Golden State Water Company
A Subsidiary of American States Water Company

April 14, 2017

Bureau of Reclamation
Financial Assistance Operations
Attn: Mr. Darren Olson
Mail Code: 84-27852
P.O. Box 25007
Denver, CO 80225

Subject: BOR WaterSMART Small-Scale Water Efficiency Projects: Norwalk—Calsense Controller Installation Project

Dear Mr. Olson:

On behalf of Golden State Water Company (GSWC), I am writing to support the City of Norwalk's grant application to install weather-based irrigation controller systems at Lakeside Park and Sara Mendez Park. Golden State Water works with the City of Norwalk to provide recycled irrigation water to maintain these two public parks. The City's Calsense Weather-Based Irrigation Controller Installation Project is a welcome conservation measure to help the City conserve water.

Golden State Water's team of professionals deliver reliable, quality water to customers in 76 communities across California, including areas within the City of Norwalk. GSWC is a wholly-owned subsidiary of American States Water Company and is regulated by the U.S. Environmental Protection Agency, the California Department of Public Health, and the California Public Utilities Commission.

Weather Based "Smart" Controllers (WBICs) provide water savings with efficient watering schedules that adjust for weather changes, and irrigate public park land based on the needs of the landscape and soil conditions. The installation of WBICs is a Best Management Practice that will benefit everyone.

Please join me in supporting Norwalk's application for grant funding to assist in implementing the Calsense Controller Installation Project in eight of Norwalk's public parks.

Sincerely,

Richard B. Mathis
General Manager
Central District Golden State Water Co.

12035 Burke Street, #1, Santa Fe Springs, CA 90670
Tel: (562) 907-9200 Fax: (562) 907-7060 www.gswater.com

Liberty Utilities

March 27, 2017

Bureau of Reclamation
Financial Assistance Operations
Attn: Mr. Darren Olson
Mail Code: 84-27852
P.O. Box 25007
Denver, CO 80225

Dear Mr. Olson:

Subject: BOR WaterSMART Small-Scale Water Efficiency Projects: Norwalk-Calsense Controller Installation Project

On behalf of Liberty Utilities, I am writing to support the City of Norwalk's grant application to install weather-based irrigation controller systems in eight of Norwalk's 23-City-owned parks. Liberty Utilities works with the City of Norwalk to provide recycled irrigation water to five of these parks (Robert White Park, New River Park, Vista Verde Park, Glazier Park, and Hermosillo Park). By installing Calsense Controllers at each park location, the City will help to conserve valuable water supplies in Southern California.

Liberty Utilities is a private investor-owned water utility operating under the regulatory oversight of the California Public Utilities Commission (CPUC) and the State Water Resources Control Board Division of Drinking Water. Liberty Utilities provides drinking water and recycled water to about 28,000 accounts in southeast Los Angeles County, including parts of the City of Norwalk.

Weather Based "Smart" Controllers that provide appropriate watering schedules, adjust for weather changes, and irrigate based on the needs of the landscape and soil conditions are a Best Management Practice that will provide multiple benefits to the City and Liberty. I am happy to offer our support for grant funding to assist the City in implementing the Calsense Controller Installation Project in eight of Norwalk's public parks.

Sincerely,

Jeanne-Marie Bruno

Jeanne-Marie Bruno. P.E.
President - California

P.O. BOX 7002, 9750 WASHBURN ROAD, DOWNEY, CA 90241
WWW.LIBERTYUTILITIES.COM