Attachment 3: Work Plan

Introduction

The *Water-Energy Upgrades in Alameda County DACs* program consists of six residential, commercial and institutional projects designed to deliver significant water and energy savings and greenhouse gas emissions reductions. The program will be managed by StopWaste, which is the umbrella name for the Alameda County Waste Management Authority (established in 1976) and the Energy Council. The Energy Council is a joint powers authority created in 2013 by the County of Alameda and 12 cities in the county. Energy Council's programmatic activities are an extension of StopWaste's pioneering work over more than two decades helping local governments, businesses, schools and residents solve critical solid waste issues while also capturing multiple benefits in related areas, including energy and water conservation, public health improvements, and climate change.

StopWaste will administer the grant and manage its implementation in collaboration with two affordable multifamily property owners, two school districts, a private company implementing upgrades at five hospitality businesses, and a city parks department. StopWaste has worked with multifamily property owners on energy efficiency and green building construction and renovation projects for over a decade. The agency is currently managing a $9 million regional multifamily retrofit program in the Bay Area. In addition, for more than two decades StopWaste has implemented innovative environmental education program in schools throughout Alameda County. StopWaste also has extensive experience developing and administering programs that deliver landscape-related water savings and greenhouse gas emission reductions at commercial and civic properties. Ten years ago, the agency created the Bay-Friendly Program to increase awareness of wasteshed/watershed connections. The Bay-Friendly Landscape Guidelines, Scorecard and Rating System created by StopWaste have subsequently been endorsed by public agencies, regulatory bodies, environmental organizations and academic institutions across California and beyond.

StopWaste's staff has extensive experience managing complex, multiyear, multimillion dollar grants awarded by state and federal funders. StopWaste will assign an experienced program manager to oversee the performance of this program and will contract with each of the local project partners to ensure that the work is fully implemented and that grant requirements are satisfied.

All of the program's projects are located in the neighboring cities of Oakland and San Leandro in Alameda County. The program is designed to provide direct benefits to residents and businesses in local DACs. Almost all of the water and energy upgrades will take place within DACs; the exceptions are a public park in San Leandro which is surrounded by but not located directly in a DAC and three schools that are adjacent to or serve DACs.

The program's two residential projects include comprehensive indoor and outdoor water efficiency improvements at apartment complexes that house more than 320 senior and low-income residents. The commercial project will convert conventional laundry systems at five hospitality businesses to state-of-the-art ozone technology that can reduce hot water use by 85 to 95% and total water use by 25 to 35%. The institutional projects include pool heating system improvements, institutional kitchen upgrades, and landscape renovations that will significantly reduce water and energy use at five public schools and four public parks.

Proposed Water-Energy-GHG System Upgrades

A summary of the proposed system upgrades are listed in Table 3-1, below. The water and energy saving features of these upgrades are described in detail in Attachment 2.

Table 3-1. Summary of Water System Upgrades and Applicable Project Types

Type	Feature to be Installed	Applicable Project Type
In-unit Upgrades	High efficiency toilets Low-flow showerheads Kitchen and bathroom faucet aerators	Residential: Multifamily
Landscape Irrigation Upgrades	Conversions of high water-use lawns to low water-use landscapes Efficient irrigation systems Use of mulch and compost to improve soil moisture retention capacity	Residential: Multifamily Public Institution: School/Park
Leak Repairs	Interior systems	Residential: Multifamily
Central Water Heating System Upgrades	Demand-controlled recirculation pumps Condensing water heater and recirculation controls	Residential: Multifamily
Industrial Laundry Upgrades	Ozone laundry system conversion	Commercial: Hospitality
Pool Upgrades	Solar pre-heating system Power-winder for pool covers Cogeneration system for water heating	Public Institution: School
Institutional Kitchen Upgrades	Faucet upgrades and leak repairs Walk-in refrigerator upgrades Hot water heater booster pump	Public Institution: School

Project Proponents

This proposal includes six project proponents and StopWaste as the grant program manager. The project proponents are: two non-profit owners of multifamily residential housing complexes, a private company that will implement commercial laundry upgrades at five facilities, two school districts that will implement upgrades at seven schools, and a city parks department that will implement upgrades at four public parks. The project proponents are described further below.

East Bay Asian Local Development Corporation (EBALDC) – EBALDC owns and operates 20 multifamily residential complexes in the City of Oakland, providing over 2,000 dwelling units for residents. Founded in 1975, EBALDC's mission is to build healthy and vibrant neighborhoods in the East San Francisco Bay Area. EBALDC develops and manages high-quality, affordable apartments and homes, retail spaces for local small businesses, and community centers, while fostering increased economic opportunities for low-income families and individuals. EBALDC helps families and individuals begin a path toward financially security and access the resources they need to lead healthy, stable and fulfilling lives. EBALDC's Neighborhood and Economic Development programs serves 4,000 low-income people annually, through resident services at their buildings, financial education and counseling, youth and senior programming, and free tax preparation and assistance. The Oakland Hismen Hin-Nu Apartment complex, which is located in a DAC, provides family housing for 162 residents in 92 units.

Eden Housing – Eden Housing operates 11 multifamily residential complexes in San Leandro, Hayward, and Union City. Combined, these complexes provide 1,471 dwelling units for residents in Alameda County. Eden Housing's mission is to build and maintain high-quality, well-managed affordable housing for very low, low and moderate-income families, seniors, people living with physical, developmental disabilities or mental illness, and the formerly homeless. Eden Housing was founded in May 1968 by six community activists who were greatly concerned about the lack of non-discriminatory, affordable housing in Alameda County. Since then, Eden Housing has continued to revitalize California communities through affordable housing development and through free social services and supportive programs that Eden provides to meet the needs of their residents. The Eden Lodge complex in San Leandro is located in a DAC and provides housing for 161 seniors in 143 apartment units.

Total Ozone Solutions – Total Ozone Solutions implements laundry facility upgrades at hotels and commercial laundry facilities throughout the country. With more than 30 years of experience in the laundry industry, Total Ozone Solutions has been the leading supplier of laundry ozone systems for the California market for the past five years, and helped Pacific Gas & Electric Company develop their deemed gas incentive program. Ozone can be generated easily from dry air, removes soils effectively, and works in cold water. It cleans fabrics by removing electrons from the soils, breaking down the molecules so that they are released from the linens. This system removes the need for harsh, hazardous chemicals to disinfect linens and creates a safer, healthier environment for workers. After a wash cycle, excess ozone breaks down into oxygen gas and mixes harmlessly with the atmosphere. For hotel owners and operators, the use of ozone can mean less energy consumption and lower costs. Typically, installing ozone technology can reduce hot water usage by 85 to 95%, and total water usage by 25 to 35%. This technology substantially improves water supply reliability for the region and reduces utility costs for industrial laundry operators.

Oakland Unified School District (Oakland USD) – Oakland USD oversees 59 elementary schools, 23 middle schools, 19 high schools, 9 alternative education schools and programs, 4 adult education schools, and early childhood education centers at most of the elementary schools. There are 46,000 K-12 students, 32,000 adult students, and more than 6,000 employees. Water and energy efficiency improvements at two high schools—Castlemont and McClymonds—are included in this proposal. Although they are not located directly in Disadvantaged Communities, they meet California Environmental Protection Agency criteria for benefiting DACs because at least 25% of the project work hours at these schools will be performed out by workers residing in DACs, per Oakland's hiring policy. In addition, McClymonds High School is located less than ½ mile from a DAC, and is attended by students who live in the DAC area surrounding the school.

San Leandro Unified School District (San Leandro USD) – San Leandro USD is comprised of 8 elementary schools, 2 middle schools, 1 high school, 1 alternative high school, and an adult school. The mission of the San Leandro USD is to educate students to achieve and demonstrate academic excellence and become confident, collaborative and competitive in a global society, by utilizing state-of-the-art technologies and innovative teaching strategies within a well-maintained, secure learning environment, in a region rich in heritage and diverse in culture, where we value our traditions while welcoming change. This proposal includes water and energy efficiency upgrades at four elementary schools, one middle school and one high school. The elementary schools and middle school are located in DACs. The high school is less than ½ mile from a DAC and is attended by students who live in the DAC area near the school.

City of San Leandro Public Works, Parks Department (San Leandro Parks) – San Leandro is a diverse city of nearly 87,000 residents. Encompassing 15 square miles, it is located on the eastern shore of the San Francisco Bay, immediately south of Oakland. The San Leandro Parks Department maintains an extensive park system which includes 23 parks and recreation facilities including community and neighborhood parks, swimming pools and sports fields. Park facilities encourage a variety of activities including running and walking, picnicking, tennis, softball, and swimming. Four public parks are included in this proposal: Marina Park, a 30-acre regional park that borders the San Leandro shoreline; Williams Street Island Park, a 12,000 square foot pocket park; Halcyon Park, a neighborhood park encompassing nearly five acres; and Thrasher Park, the City's oldest park encompasses nearly four acres. Williams Street Island, Halcyon and

Thrasher Parks are located in DACs; Marina Park isn't physically located in a DAC but it is heavily used by residents who live in the DACs bordering the park.

Project List

Six projects, listed in Table 3-2, will be implemented with grant funds. The seventh project is for program management. As described below, Projects 3, 4, 5, and 6 include multiple sub-projects.

Table 3-2. Project List and Project Proponents

Project ID#	Project Type	Project Proponent	Project Title	Grant Amount
1	Residential: Multifamily	East Bay Asian Local Development Corporation (EBALDC)	Multifamily Housing EBALDC Upgrades	$139,333.00
2	Residential: Multifamily	Eden Housing	Eden Housing Multifamily Upgrades	$210,220.00
3	Commercial: Industrial Laundry Facilities	Total Ozone Solutions	Industrial Laundry Upgrades in Oakland and San Leandro	$48,001.00
4	Public Institution: School	Oakland Unified School District (OUSD)	Oakland USD School Upgrades	$509,573.00
5	Public Institution: School	San Leandro Unified School District (SLUSD)	San Leandro USD School Upgrades	$836,999.80
6	Public Institution: Park	City of San Leandro	San Leandro Park Upgrades	$400,000.00
7	Program Management	StopWaste	Program Management	$354,433.10
			Total Grant Request	**$2,498,559.90**

Residential: Multi-family Upgrades

- Project 1: Multifamily Housing EBALDC Upgrades – The Hismen Hin-Nu Apartments is a multifamily residential complex with 92 units and 102 bathrooms located in Oakland, supplied by water from EBMUD. Proposed indoor water and energy use upgrades include high-efficiency toilets, showerheads, and faucet aerators, building-wide leak repairs, and upgrades to the central water heating system and recirculation pumps. Outdoors, the water-intensive plants in 43 courtyard planters will be replaced with low water-using plants and the standard spray irrigation system will be replaced with water-efficient drip irrigation.
- Project 2: Eden Housing Multifamily Upgrades – Eden Lodge is a 143-unit apartment complex for seniors located in the City of San Leandro. Proposed indoor water and energy use upgrades include high-efficiency toilets, showerheads, and faucet aerators, building-wide leak repairs, and upgrades to the central water heating system. Outdoors, conventional spray irrigation will be replaced by efficient drip irrigation across more than an acre of the property. In addition, 2,100 sq. ft. of lawn will be replaced with low water-using, climate-adapted landscaping.

Commercial: Industrial Laundry Upgrades

- Project 3: Industrial Laundry Upgrades in Oakland and San Leandro – Industrial laundry systems will be upgraded with energy- and water-saving ozone technology at one hospitality services company in San Leandro (Bay Linen) and five hospitality companies in Oakland (Days Hotel, Holiday Inn Express Oakland Airport, Holiday Inn Oakland Airport, and Red Lion Hotel).

Public Institution: School Upgrades

- Project 4: Oakland USD School Upgrades – Efficiency improvements are proposed at two schools. Swimming pool upgrades include power winders for pool covers, two cogeneration systems for pool and shower heating and energy generation, and variable frequency drive pool pumps. Institutional kitchen efficiency improvements include sink aerators and plumbing repairs, walk-in refrigerator efficiency upgrades, and a kitchen water heater booster pump.
- Project 5: San Leandro USD School Upgrades – Efficiency upgrades are proposed at five schools (three elementary schools, one middle school and one high school). Sheet mulch will be used to convert more than 60,000 sq. ft. of non-recreational front lawns to low water-using landscaping and efficient irrigation systems will be installed. Water-wasting time-clock irrigation controllers will be replaced with weather-based controllers to ensure efficient delivery of water to the schools' playing fields and other irrigated areas. Inefficient toilets, sinks and urinals will be replaced with more efficient models. The conventional water heaters serving two pools will be replaced with solar water heating systems.

Public Institution: Park Upgrades

- Project 6: San Leandro Park Upgrades – Water- and energy-saving landscaping and infrastructure improvements will be implemented at four public parks located in or adjacent to DACs. Improvements will include converting nearly two acres of high water-using lawns to low water-using landscapes using the Bay-Friendly Basics approach, a high performance landscape standard developed by StopWaste. The nine best practices that make up the Bay-Friendly Basics standard have been shown to reduce landscape water use by 50% to 90% and reduce greenhouse gas emissions by up to 53.5 tons CO2e/acre-year. Old well pumps will be replaced with variable frequency drive pumps at two parks.

Program Management

- Project 7: StopWaste Program Management – As the grant administrator and grant recipient, StopWaste will ensure that grant funds are properly managed in accordance with California Department of Water Resources (DWR) guidelines and requirements. An experienced StopWaste program manager will coordinate with partner organizations and oversee the performance of this program's projects. StopWaste has extensive experience managing large and complex grant-funded programs that deliver energy, water and waste savings for residential, commercial and institutional projects.

System Map

All projects included in this proposal are located in west Alameda County, within the city limits of Oakland and San Leandro. **Attachment 3, Figure 1** depicts the locations of the projects along with the jurisdictional boundary of the East Bay Municipal Utility District (EBMUD) supply system, which is the primary water supplier for the proposal area. Figure 1 also shows the DAC benefit areas. **Attachment 3, Figure 2** shows additional detail of the project locations within the city limits of Oakland and San Leandro and within DACs.

Water supply in the proposal area is solely provided by the EBMUD and electricity and natural gas are provided by PG&E. An overview of the service systems for these agencies is provided in the introduction to Attachment 2. Additional detail about EBMUD's water supply system is provided below.

Nearly 100% of EBMUD's water supply originates in the Sierra Nevada. Raw water from Mokelumne River and Pardee Reservoir is transported 91 miles to the East Bay through a series of three aqueducts. The majority of this supply and conveyance segment of the EBMUD system is gravity-fed.

Once in the East Bay service area, the raw water is filtered at plants in Walnut Creek, Lafayette, and Orinda or stored in terminal reservoirs (Upper San Leandro, Briones or San Pablo) for later use. EBMUD also operates three conventional water treatment plants. The Upper San Leandro WTP directly serves consumers in Oakland and San Leandro, where the proposed projects for grant funding are located, and treated water is distributed via the Sequoia Aqueduct pipelines. (EBMUD 2012[1]) These facilities are shown on Figures 1 and 2.

[1] East Bay Municipal Utility District (EBMUD). 2012. Water Supply Management Program 2040. April. Available: https://www.ebmud.com/water-and-wastewater/water-supply/water-supply-management-program-2040. Accessed: November 21, 2014.

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Figure 1 – Proposal System Map

EBMUD Ultimate Service Boundary

Water Treatment Plant

Water Transmission Pipelines

Project Sites

Disadvantaged Community (DAC) Boundary

Benefit Areas -
TOTAL BENEFIT AREA = 499,272,729 SQ FT

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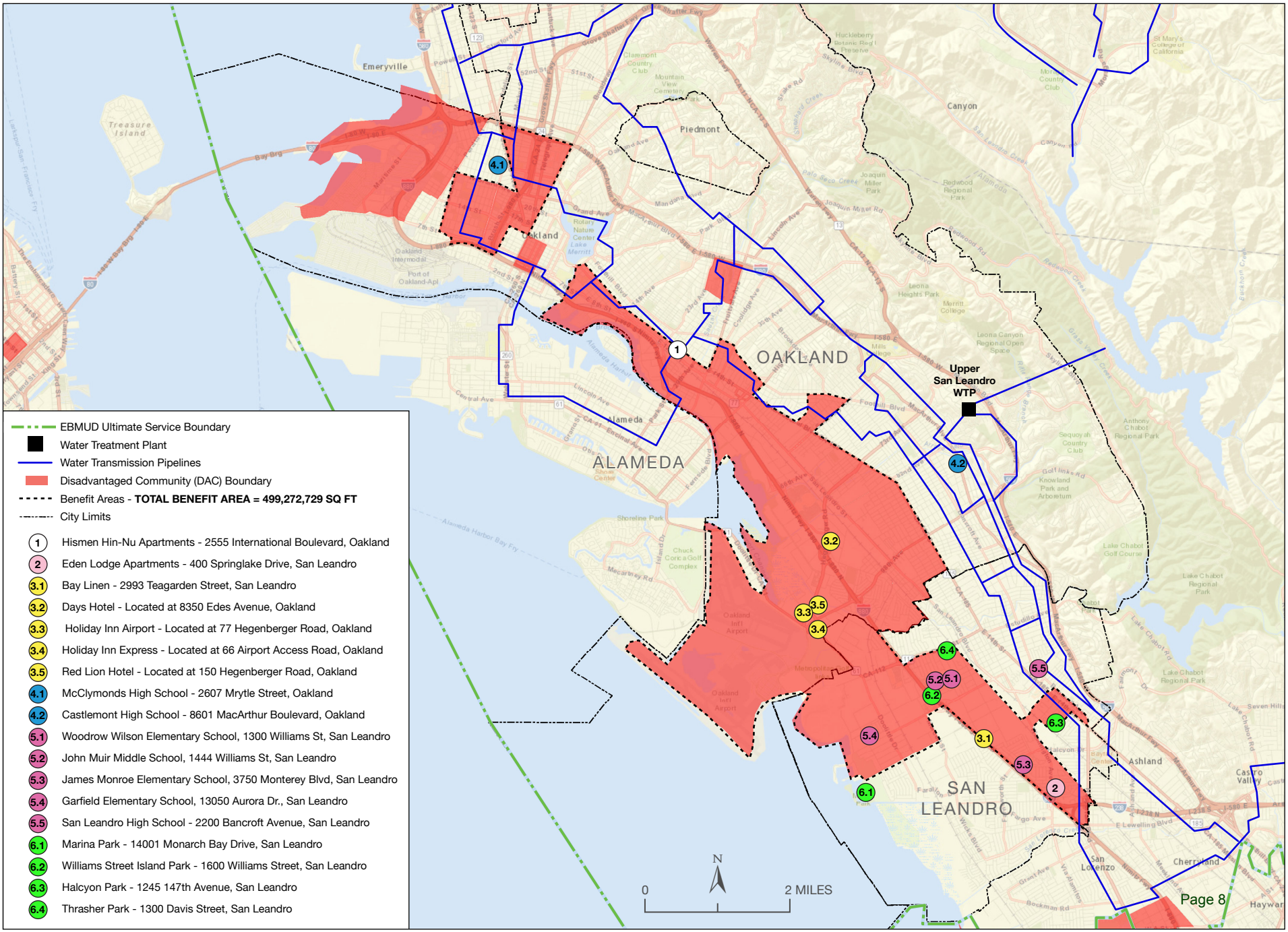
Figure 2 – System Map: Oakland and San Leandro Projects



Project Descriptions and Work Plans

Each project is described in detail in the following pages. Each project description includes an overview of the project goals, a detailed project description, an overview of the project implementation plan, and a detailed workplan. The workplan tasks are consistent with the budgets explained in Attachment 4 and the schedules included in Attachment 5.

See Figure 2 for project locations.

Project ID#	Project Proponent	Project Title
1	East Bay Asian Local Development Corporation (EBALDC)	Multifamily Housing EBALDC Upgrades
2	Eden Housing	Eden Housing Multifamily Upgrades
3	Total Ozone Solutions	Industrial Laundry Upgrades in Oakland and San Leandro
4	Oakland Unified School District (OUSD)	Oakland USD School Upgrades
5	San Leandro Unified School District (SLUSD)	San Leandro USD School Upgrades
6	City of San Leandro	San Leandro Park Upgrades
7	StopWaste	Program Management

Project 1 – Multifamily Housing EBALDC Upgrades

Project Proponent: East Bay Asian Local Development Corporation (EBALDC)

Project Goals and Funding Need: EBALDC is committed to reducing end-use demand for water and energy for their multifamily housing units. EBALDC has implemented green building practices throughout their housing portfolio in partnership with StopWaste resources such as their grants to non-profit housing for Green Building Certification program and through their Bay Area Multifamily Building Enhancements (BAMBE) energy efficiency incentive program. This grant would provide the opportunity to directly implement water-energy technologies in conjunction with other property enhancements supported by other resources such as private capital, City of Oakland low-income housing and redevelopment funding, State low income housing tax credits, local government grants, electric and gas utility rebates, as well as EBMUD water efficiency rebates.

Project Description: The Hismen Hin-Nu Apartment complex is located at 2555 International Boulevard in Oakland and provides family housing for 162 residents within 92 units. The building was constructed in 1995 and has been minimally upgraded since. A water use information survey of the building was recently conducted (November 2014) to identify water and water-related energy savings opportunities within the dwelling units, the central water heating system, and in the landscape areas. The baseline water consumption for the entire complex is 3,155,041 gal/yr.

The facility is located in the top 20% of DAC census tracts identified by CalEnviroScreen 2.0. This housing complex is located on International Avenue and is part of the City of Oakland's revitalization effort to invest in transit-oriented development and strategies for non-motorized transit. These upgrades will directly benefit the local community by increasing water supply reliability, reducing utility service costs, and through economic development invested directly within a DAC. The below table indicates the facility's existing water consumption and summarizes water savings and energy savings.

Measure	Site Gallons/ Yr Water Savings	Site Therms/ Yr Savings	Site kWh/ Yr Savings
102 Upgraded Low Flow Showerheads and Faucet Aerators	55,998	4,692	0
102 Upgraded Toilets to 0.84 GPF	26,112	0	0
Building Plumbing Leak Repairs	29,937	88	0
Lawn Conversion to Drought Tolerant Landscaping with Efficient Irrigation System	82,560	0	0
High Efficiency Condensing Central Water Heater Upgrade	0	4,716	0
Demand Controls on Central Water Heating Recirculation System	0	2,208	2,576
TOTAL	**194,607**	**11,704**	**2,576**

Upgrades to all 92 apartments will include:

- **High efficiency toilets** – Existing 1.6 gallons/flush toilets will be replaced with ultra-low flow 0.84 gallons/flush toilets resulting in 26,112 gallons/year in water savings.
- **Low-flow showerheads and sink and bathroom faucets** – Existing bathroom aerators are 2.2 gpm, showerheads are 2.5 gpm, and kitchen areators are 1.8 gpm. This project would upgrade these fixtures with bathroom and kitchen aerators less than or equal to 1.5 gpm and showerheads to 1.5 gpm resulting in 55,998 gallons/year in water savings and 4,692 therms/year in energy savings.
- **To address leaking pipes**, a more intensive apartment survey will be conducted to identify the leak source and repair the issue. Based upon data from property management regarding occupant complaints of leaking pipe throughout the dwelling units and within the landscape areas, the project initially assumes 10% of apartments have leaks at 1 drip per second, with 25% of the leaks being hot water. Leaks would be repaired by replacing valves and fittings, or equipment as needed. These repairs would result in approximately 29,937 gallons/year in water savings and 88 therms/year in savings.
- **Landscaping** – Irrigation upgrade and repurposing of planters to benches and non-water consuming features. The property currently has 43 planters on a structure over the garage which are assumed to be 64 square feet each. Each contains non-drought tolerant plants, and the current irrigation has no controls and is standard spray irrigation. The project involves replacing the plants with drought tolerant species and installing high efficiency drip irrigation. They are working with an architect to re-purpose the leaking planters (e.g., into benches) and they will re-plant others, pulling existing vegetation if necessary, and replace existing spray irrigation equipment (all are spray currently) to drip irrigation. The only part of the scope that is included in this funding request is for the irrigation and plantings, and does not include any available incentives. This upgrade will result in 82,560 gallons/year of water savings.

The building central water heating system will be upgraded with a high energy condensing central water heater and a demand-controlled recirculation system.

- The existing system is a standard efficiency 80% Small Commercial tank type boiler. The proposed replacement is condensing water heaters with 90% thermal efficiency or greater. This upgrade is anticipated to result in savings of 4,716 therms/year.
- The existing central water recirculation pumps operate continually and are not efficient. The proposed replacement is a demand controlled recirculation pump. This upgrade will result in 2,208 therms/year and 2,576 kWh/year in savings.

Implementation Plan: The construction of this project will be managed by the property owner, who will oversee and hire all design, bid, contracting and installation processes. If the project is awarded, then low-income housing tax credits (LIHTCs) will include this work in the broader rehabilitation scope which is in design development phase and planned to start construction in fall of 2015 and complete construction no later than December 2016. If the LIHTCs are not awarded, then the project will proceed

with this limited scope during the same time-frame. The primary benefit of leveraging the broader LIHTC scope is that it will minimize disruption to tenants and their need for displacement if the entire upgrade is performed at once. The DWR funding would enable them to add the deeper savings on the water energy measures that would be part of their LIHTC rehabilitation project.

StopWaste - Design Assistance and Quality Assurance. StopWaste and their consultants will work with the property owner to ensure that the energy and water efficiency specifications installed at the building meet or exceed efficiency standards used to estimate savings claimed. StopWaste will also coordinate project analysis with the project's participation in the Bay Area Multifamily Building Enhancement (BAMBE) energy efficiency incentive program. Through the BAMBE program, the project will be eligible for $750/unit in incentives for energy efficiency improvements (BAMBE, 2014). StopWaste directly administers this program on behalf of the Bay Area Regional Energy Network. The BAMBE consulting team will be engaged in the analysis, specifications development, and installation verification of the water-energy savings measures.

Work Plan Tasks

Task 1. Direct Project Administration and Reporting:

A. Project Administration for StopWaste staff: This task consists of the project administration responsibilities, which includes coordinating agency responsibilities and managing cost commitments. This task also includes providing other supporting documentation required for this grant agreement (e.g., financial statements) to the State prior to disbursement of grant funds for construction or monitoring activities for this Project.

B. Reporting from project sponsor (EBALDC):

- Quarterly Progress Reports: This task consists of preparing progress reports detailing work completed in prior quarter and submittal to StopWaste for submittal to the California Department of Water Resources (DWR).
- Invoices: This task consists of preparing quarterly invoices including relevant supporting documentation for submittal to StopWaste for submittal to DWR.
- Draft and Final Project Completion Report: This task consists of preparing draft Final Project Completion Report and submitting to StopWaste for submittal to DWR for DWR Project Manager's comment and review no later than 90 days after project completion. This task also consists of preparing the Final Report addressing StopWaste/DWR's comments.

Task 1 Deliverables:

- Local Project Sponsor Agreement with StopWaste
- Financial Statements
- Project Performance Monitoring Plan
- Quarterly Project Progress Reports
- Quarterly Invoices and associated backup documentation
- Draft and Final Project Completion Reports

Task 2. Easement(s)

The project site is located on private property owned by the project proponent. No land purchase or easements are necessary. This task does not apply to this project.

Task 3. Project Evaluation/Design/Engineering

A. Assessment and Evaluation: Initial water/energy audits and assessment of potential water and energy savings are complete.

B. Preliminary and Final Designs: Results of the water/energy audits informed project design. Upon funding award the project will finalize design specifications. This task is 75 % complete.

C. Preliminary and final construction cost estimates: Preliminary cost estimates have been received; final cost estimates are forthcoming if funding is awarded (due in January 2015). This task is 50% complete.

Task 3 Deliverables:

- 100% complete project design plans

Task 4. Environmental Documentation

This task consists of completing the required approval and compliance under California Environmental Quality Act (CEQA) (a Categorical Exemption will be completed) and no National Environmental Policy Act (NEPA) compliance is necessary.

Task 4 Deliverables:

- A copy of CEQA compliance documentation

Task 5. Permitting

Acquisition of applicable local permits and clearances will be obtained prior to the start of project installation.

Task 5 Deliverables:

- Copies of project permits

Task 6. Project Monitoring Plan

A Project Monitoring Plan will be developed that describe tools to be used to monitor and measure project benefits. At a minimum, the Plan will include the following information:

a) Baseline (pre-project) water use and energy use.
b) Proposed savings
c) Brief discussion of how water and energy savings will be monitored.
d) Methodology of monitoring.
e) Frequency of monitoring.
f) Location of monitoring points.
g) Performance targets

This plan will be submitted to StopWaste for review prior to submittal to DWR for grant contracting. The Project Monitoring Plan will be implemented for 10 years or until the life of the installed features has ended, whichever happens first.

Task 6 Deliverables:

- Project Monitoring Plan

Task 7. Construction/Implementation

A. Construction Contracting: EBALDC will solicit bids for work and award contracts to licensed and qualified contractors. The bid process will follow protocol for a publicly bid processes necessary for use of CA state low income housing tax credit funding.

B. Project Construction/Implementation:

- Project Construction: The project involves installation of high efficiency toilets and faucet aerators, leaking pipe repairs, central heating system upgrades, and landscaping upgrades. These upgrades will

be installed in phases which will correspond with any necessary tenant relocation /disruption minimization plan developed for the project.

- Construction Process: The site will be prepared and all equipment purchased and delivered to the site. Signage and safety fencing will be posted, if necessary, but the facility will remain open during construction. Hot water supply may be temporarily shut down during installation of the central heating upgrades. Upon completion of the upgrade installations, the new equipment will be tested to confirm functioning. All construction signage and debris will be removed from the site upon project completion.

Task 7 Deliverables:

- Construction bidding, contracting and award documentation
- Pre-construction, construction, and post-construction photographs
- Performance testing results
- Project completion verification

Project 2 – Eden Housing Multifamily Upgrades

Project Proponent: Eden Housing

Project Goals and Funding Need: Eden Housing has implemented sustainability practices throughout their housing portfolio and is committed to reducing end-use demand for water and energy in their multifamily housing units. Eden Housing has received grants from StopWaste to implement green building and high performance Bay-Friendly landscaping measures at their properties, and has projects enrolled in the Bay Area Multifamily Building Enhancements (BAMBE) energy efficiency incentive program managed by StopWaste.

The funding requested in this application will support water-energy work that is not otherwise funded by other grants, incentives or other sources of public funding. Incentives from PG&E or EBMUD for this work are estimated at $14,614 and are not included in the request for funding but rather listed as matched funding.

The following table summarizes this project's efficiency measures, estimated savings, and estimated utility incentives. The savings are based on a total water consumption baseline of 3,155,041 gal/yr.

Measure	Site Gallons/ Yr Water Savings	Site Therms/ Yr Savings	Site kWh/ Yr Savings	Estimated Total Cost	Estimated PG&E or EBMUD Incentive
Apartment Low Flow Showerheads and Faucet Aerators	67,203	4,011	0	$3,905	$1,064
Apartment ≤ 1.28 GPF Toilets	36,608	0	0	$42,900	$0
Building Plumbing Leak Repair	46,532	137	0	$11,440	$0
Efficient Drip Irrigation System and Lawn Conversion	952,500	0	0	$161,494	$13,550
Demand Controls on Central Water Heating Recirculation System	0	3,432	4,004	$9,000	
TOTAL	**1,102,843**	**7,580**	**4,004**	**$224,834**	**$14,614**

Project Description: The Eden Lodge apartment complex is located at 400 Springlake Drive in San Leandro and provides housing for 161 senior residents within 143 units. The building was constructed in 1981 but has undergone a number of upgrades since initial construction. A water use information survey of the building was conducted in November 2014 to identify potential improvements. The survey indicated that the building's central water heating is powered by solar and natural gas with a pump that is always operating. The complex has 2,100 square feet of grass turf and 50,000 square feet of other landscaping with basic sprinklers that overspray. The 143 units all have 1.5 gallons/flush toilets, 2.2 gallons/minute kitchen and bathroom faucets, and 1.5 or 2.5 gallon/minute handheld showerheads. The

survey indicated that that 10% of apartments have leaks of approximately 1 drip per second, with 25% of that amount as hot water leaks.

The facility is located in the top 20% of DAC census tracts identified by CalEnviroScreen 2.0. These upgrades will directly benefit the local community by increasing water supply reliability and reducing utility service costs.

Upgrades to all 143 apartments will include:

- High efficiency toilets – Existing 1.6 gallons/flush toilets will be replaced with ultra-low flow 0.84 gallons/flush toilets resulting in 36,608 gallons/year in water savings.
- Low-flow showerheads and sink and bathroom faucets – Actual fixture survey data from Eden identified all existing faucet aerators as 2.2 gpm and 65 of the 143 showerheads are 2.5 gpm. This project would upgrade these fixtures with bathroom and kitchen aerators less than or equal to 1.5 gpm and showerheads to 1.5 gpm resulting in 67,203 gallons/year in water savings and 4,011 therms/year in energy savings.
- To address leaking pipes, a more intensive apartment survey will be conducted to identify and repair the leaks. Initially, the project assumes 10% of apartments have leaks at 1 drip per second, with 25% of the leaks being hot water. Leaks would be repaired by replacing valves and fittings, or equipment as needed. These repairs would result in 46,532 gallons/year in water savings and 137 therms/year in savings.

Upgrades to the landscaping:

The landscaping consists of 50,000 square feet of conventional, non-drought tolerant plantings and 2,100 square feet of grass. The plantings and grass are irrigated with a standard spray system with no controls. The project involves installing high efficiency drip irrigation throughout the landscaping and replacing the lawn with low water-using plants. These landscaping upgrades will follow Bay-Friendly Landscape Guidelines for selection of plant types, turf replacement, and irrigation system upgrades. This upgrade will result in 952,500 gallons/year of water savings.

Upgrades to the building's central water heating system:

The existing central water recirculation pumps operate continually and are not efficient. The proposed replacement is a demand controlled recirculation pump. This upgrade will result in 3,432 therms/year and 4,004 kWh/year in savings.

Documentation of claimed water/energy savings is included in Attachment 2.

Implementation Plan:

The project proponent will finalize the design and construction documents and complete the bidding process within three months of the grant award. Construction will begin in fall 2015 and be completed no later than December 2016.

Work Plan Tasks

Task 1. Direct Project Administration and Reporting:

A. Project Administration for StopWaste staff: This task consists of the project administration responsibilities, which includes coordinating agency responsibilities and managing cost commitments. This task also includes providing other supporting documentation required for this grant agreement (e.g., financial statements) to the State prior to disbursement of grant funds for construction or monitoring activities for this Project.

B. Reporting from project sponsor (Eden):

- Quarterly Progress Reports: This task consists of preparing progress reports detailing work completed in prior quarter and submittal to StopWaste for submittal to the California Department of Water Resources (DWR).
- Invoices: This task consists of preparing quarterly invoices including relevant supporting documentation for submittal to StopWaste for submittal to DWR.
- Draft and Final Project Completion Report: This task consists of preparing draft Final Project Completion Report and submitting to StopWaste for submittal to DWR for DWR Project Manager's comment and review no later than 90 days after project completion. This task also consists of preparing the Final Report addressing StopWaste/DWR's comments.

Task 1 Deliverables:

- Local Project Sponsor Agreement with StopWaste
- Financial Statements
- Project Performance Monitoring Plan
- Quarterly Project Progress Reports
- Quarterly Invoices and associated backup documentation
- Draft and Final Project Completion Reports

Task 2. Easement(s)

The project site is located on private property owned by the project proponent. No land purchase or easements are necessary. This task does not apply to this project.

Task 3. Project Evaluation/Design/Engineering

A. Assessment and Evaluation: Initial water/energy audits and assessment of potential water and energy savings are complete.

B. Preliminary and Final Designs: Results of the water/energy audits informed project design. Upon funding award the project will finalize design specifications. This task is 75% complete.

C. Preliminary and final construction cost estimates: Preliminary cost estimates have been received; final cost estimates are forthcoming if funding is awarded (due in September 2015). This task is 50% complete.

Task 3 Deliverables:

- 100% complete project design plans

Task 4. Environmental Documentation

This task consists of completing the required approval and compliance under California Environmental Quality Act (CEQA) (a Categorical Exemption will be completed) and no National Environmental Policy Act (NEPA) compliance is necessary.

Task 4 Deliverables:

- A copy of CEQA compliance documentation

Task 5. Permitting

Acquisition of applicable local permits and clearances will be obtained prior to the start of project installation.

Task 5 Deliverables:

- Copies of project permits

Task 6. Project Monitoring Plan

A Project Monitoring Plan will be developed that describe tools to be used to monitor and measure project benefits. At a minimum, the Plan will include the following information:

a) Baseline (pre-project) water use and energy use
b) Proposed savings
c) Brief discussion of how water and energy savings will be monitored
d) Methodology of monitoring
e) Frequency of monitoring
f) Location of monitoring points
g) Performance targets

This plan will be submitted to StopWaste for review prior to submittal to DWR for grant contracting. The Project Monitoring Plan will be implemented for 10 years or until the life of the installed features has ended, whichever happens first.

Task 6 Deliverables:

- Project Monitoring Plan

Task 7. Construction/Implementation

A. Construction Contracting: Eden will solicit bids for work and award contracts to licensed and qualified contractors. The bid process will follow protocol for a publicly bid processes necessary for use of CA state low income housing tax credit funding.

B. Project Construction/Implementation:

- Project Construction: The project involves installation of high efficiency toilets and faucet aerators, plumbing leak repairs, central water heating system recirculation pump upgrades, and landscaping upgrades. These upgrades will be installed in phases that will correspond with any necessary tenant relocation/disruption minimization plans developed for the project.

- Construction Process: The site will be prepared and all equipment purchased and delivered to the site. Signage and safety fencing will be posted, if necessary, but the facility will remain open during construction. Hot water supply may be temporarily shut down during installation of the central water heating upgrades. Upon completion of the upgrade installations, the new equipment will be tested to confirm functioning. All construction signage and debris will be removed from the site upon project completion.

Task 7 Deliverables:

- Construction bidding, contracting and award documentation
- Pre-construction, construction, and post-construction photographs
- Performance testing results
- Project completion verification

Project 3 – Industrial Laundry Upgrades in Oakland and San Leandro

Project Proponent: Total Ozone Solutions

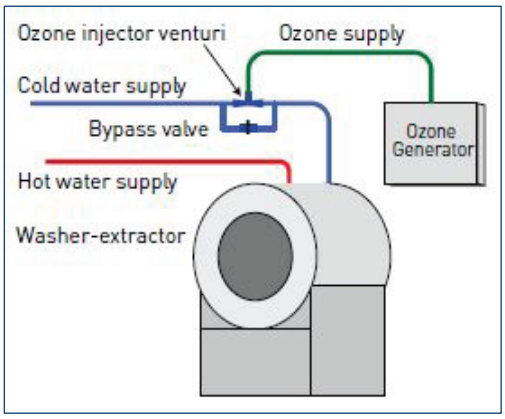
Project Goals and Funding Need: Industrial laundry system upgrades at four hotels and one linen laundering service company will result in substantial water and energy savings. This project will result in total water savings of 2.9 million gallons per year (MGY) and 14.3 MGY of the project's useful life. These upgrades will also result in annual energy savings of approximately 47,700 therms/year due to eliminating use of hot water in the laundering process.

Project Description: This project includes industrial laundry system upgrades at five hospitality facilities: four sites in Oakland and one site in San Leandro. Savings anticipated at each site are summarized below.

1. Bay Linen: Located at 2993 Teagarden Street in San Leandro. Bay Linen provides commercial laundry services to hotels, golf clubs, fitness clubs, banquet halls, universities and colleges, government buildings, and health care facilities in the five-county Bay Area. They also provide pickup and delivery services. Upgrading their commercial washing machines with ozone technology will result in up to 2.6 MGY of water savings and 20,565 therms/year in natural gas.
2. Days Hotel: Located at 8350 Edes Avenue near the Oakland Airport. This facility has 138 rooms, a swimming pool, and meeting rooms and targets business and vacation travelers. Industrial laundry machines will be upgraded with an ozone laundry system to save up to 0.77 MGY of water and 6,105 therms/year of natural gas.
3. Holiday Inn Airport: Located at 77 Hegenberger Road in Oakland. This facility has 146 rooms, a heated swimming pool, fitness center, and a restaurant with a bar and targets business travelers. Industrial laundry machines will be upgraded with an ozone laundry system to save up to 0.77 MGY of water and 6,105 therms/year of natural gas.
4. Holiday Inn Express: Located at 66 Airport Access Road in Oakland. This facility targets business travelers and has 95 rooms, a fitness center, spa, and meeting rooms. Industrial laundry machines will be upgraded with an ozone laundry system to save up to 0.61 MGY of water and 4,849 therms/year of natural gas.
5. Red Lion Hotel: Located at 150 Hegenberger Road in Oakland. This facility has 189 rooms, a heated swimming pool, fitness center, and a restaurant with a bar and targets business travelers. Installation of an ozone laundry system will result in a total of 1.28 MGY of total water savings, and up to 10,085 therms/year of natural gas.

Ozone technology reduces the need for hot water to clean fabrics by injecting ozone into cold water, creating an oxidation mix with disinfection properties. Oxidation occurs when ozone molecules come in contact with oxidizable substances, including microorganisms like viruses, molds, and bacteria. This reaction causes the soils to break into smaller molecules that are released from the fabric due to the agitation of the washing machine. Basic components of an ozone system include: oxygen/feed gas preparation, ozone generator system, mass transfer/contact tank, and operation monitoring and

controls. This equipment is installed onto the existing laundering equipment, as illustrated in the adjacent graphic.



Water savings are realized by reducing the demand for hot water by between 90 and 98%. Instead, hot water that would have otherwise been used for a typical washing machine is replaced by cold water. Energy savings are realized by removing the need to heat water to launder and disinfect fabrics. Ozone laundry systems can be installed in electric and natural gas energy systems. However, the five facilities included in this project currently use natural gas to heat water for laundering.

In total, this project is expected to result in total water savings of 2.9 MGY; over the equipment lifetime (5 years), 14.3 MGY of water savings will result from this effort. The project will result in GHG reductions of approximately 389,427 kg CO_2e/year and a total of 1.9 million kg CO_2e through reductions in natural gas use.

All five facilities are located in DAC areas. The proposed laundry upgrades will directly benefit this disadvantaged community as ozone technology minimizes the need for chemicals and detergents, resulting in less exposure of these chemicals to workers at the facilities. Oftentimes, heavily soiled items need to be rewashed, which requires more water, chemicals and detergents. Ozone technology eliminates the need for rewashing, eliminates the need to use bleach to whiten linens, and reduces the number of wash cycles because white and colored linens can be washed together. Ozone technology is safe and protects employees from exposure hazardous chemicals in disinfectants and detergents.

Implementation Plan: All installation work will be conducted by Total Ozone Solutions. Installation of all five laundry systems will be complete within one month. Construction will begin as early as July 2015 and be complete by August 2015. Installation of each ozone laundry system requires approximately four days but two additional weeks are included in the schedule to allow time for monitoring. Although the order in which each system gets installed will be determined in spring of 2015, for the purposes of this proposal, the project will be implemented by facility in the following phases:

1. Bay Linen: Total Ozone will begin installation of the ozone laundry system the second week of July 2015. Construction will be complete by August 2015.
2. Days Hotel: Total Ozone will begin installation of the ozone laundry system the second week of July 2015. Construction will be complete by August 2015.
3. Holiday Inn Airport: Total Ozone will begin installation of the ozone laundry system the third week of July 2015. Construction will be complete by August 2015.
4. Holiday Inn Express: Total Ozone will begin installation of the ozone laundry system the third week of July 2015. Construction will be complete by August 2015.

5. Red Lion Hotel: Total Ozone will begin installation of the ozone laundry system the third or fourth week of July 2015. Construction will be complete by August 2015.

Work Plan Tasks

Task 1. Direct Project Administration and Reporting:

A. Project Administration for StopWaste staff: This task consists of the project administration responsibilities, which includes coordinating agency responsibilities and managing cost commitments. This task also includes providing other supporting documentation required for this grant agreement (e.g., financial statements) to the State prior to disbursement of grant funds for construction or monitoring activities for this Project.

B. Reporting from project sponsor (Total Ozone Solutions):

- Quarterly Progress Reports: This task consists of preparing progress reports detailing work completed in prior quarter and submittal to StopWaste for submittal to the California Department of Water Resources (DWR).
- Invoices: This task consists of preparing quarterly invoices including relevant supporting documentation for submittal to StopWaste for submittal to DWR.
- Draft and Final Project Completion Report: This task consists of preparing draft Final Project Completion Report and submitting to StopWaste for submittal to DWR for DWR Project Manager's comment and review no later than 90 days after project completion. This task also consists of preparing the Final Report addressing StopWaste/DWR's comments.

Task 1 Deliverables:

- Local Project Sponsor Agreement with StopWaste
- Financial Statements
- Project Performance Monitoring Plan
- Quarterly Project Progress Reports
- Quarterly Invoices and associated backup documentation
- Draft and Final Project Completion Reports

Task 2. Easement(s)

The project site is located on private property and the equipment upgrades will be conducted under contracts with the project proponent. No land purchase or easements are necessary. This task does not apply to this project.

Task 3. Project Evaluation/Design/Engineering

A. Assessment and Evaluation: The water/energy audits and assessment of potential water and energy savings are complete.

B. Preliminary and Final Designs: Results of the water/energy audits informed project design. This task is complete.

C. Preliminary and final construction cost estimates: Cost estimates have been received. This task is complete.

Task 3 Deliverables:

- 100% complete project plans

Task 4. Environmental Documentation

This task consists of completing the required approval and compliance under California Environmental Quality Act (CEQA) (a Categorical Exemption will be completed) and no National Environmental Policy Act (NEPA) compliance is necessary.

Task 4 Deliverables:

- A copy of CEQA compliance documentation

Task 5. Permitting

Acquisition of applicable local permits and clearances will be obtained prior to the start of project installation.

Task 5 Deliverables:

- Copies of project permits

Task 6. Project Monitoring Plan

A Project Monitoring Plan will be developed that describe tools to be used to monitor and measure project benefits. At a minimum, the Plan will include the following information:

a) Baseline (pre-project) water use and energy use.
b) Proposed savings
c) Brief discussion of how water and energy savings will be monitored.
d) Methodology of monitoring.
e) Frequency of monitoring.
f) Location of monitoring points.
g) Performance targets

This plan will be submitted to StopWaste for review prior to submittal to DWR for grant contracting. The Project Monitoring Plan will be implemented for 10 years or until the life of the installed features has ended, whichever happens first.

Task 6 Deliverables:

- Project Monitoring Plan

Task 7. Construction/Implementation

This task consists of installation of the ozone laundry systems at four hotels and Bay Linen by Total Ozone Solutions. For each facility, the installation process will require up to 4 days to install and all installations will be complete by the end of August 2015.

The process involves the following steps. The site will be prepared and all equipment purchased and delivered to the site. Signage and safety fencing will be posted, if necessary. Laundering facilities will be temporarily shut down while the new equipment is installed (approximately 4 day shutdown period). Upon completion of the installation, equipment will be tested for up to two weeks to confirm functioning. All construction signage and debris will be removed from the site upon project completion.

Task 7 Deliverables:

- Pre-construction, construction, and post-construction photographs for each facility
- Performance testing results for each facility
- Project completion verification for each facility

Project 4 – Oakland USD School Upgrades

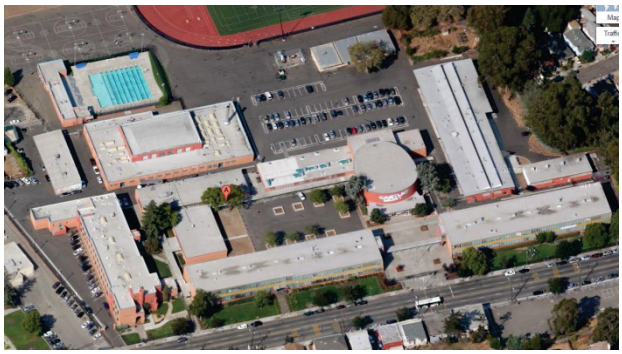
Project Proponent: Oakland Unified School District (OUSD)

Project Goals and Funding Need: The OUSD is committed to installing technology that reduces end-use demand for water and energy. Water and energy savings will be realized by upgrading pool and kitchen equipment at two high school campuses.

Project Description: Water and energy efficiency upgrades will be installed at McClymonds High School located at 2607 Mrytle Street and Castlemont High School at 8601 MacArthur Boulevard in Oakland.

1. McClymonds High School is located in a census tract with a Cal EnviroScreen 2.0 DAC score of 76%. A 168,000 gallon heated pool on the school's campus is used for recreation and athletics programs by the school students..

2. Castlemont High School is attended by 11,000 students, most of which live in the DAC area surrounding the school. A 44,000 gallon heated pool on the school's campus is used for recreation and athletics programs by the school students. The industrial kitchen on the school campus provides lunches to students daily, many of which reside in DAC census tracts.



Proposed upgrades include installation of water saving and energy efficiency upgrades include.

- McClymonds High School will be upgraded with kitchen faucet aerators and leak repairs, and installation of a variable frequency drive pool pump, a cogeneration system for water heating, and a power winder to encourage use of their pool cover. These upgrades are anticipated to result in 294,640 gallons/year of water savings and 315,759 kWh/year of energy savings.

- Castlemont High School will be upgraded with improvements to the industrial kitchen refrigerator (commutated motor, gasket replacement, automatic door closer), scheduling controls for kitchen water heater booster pumps, and installation of a variable frequency drive pool pump, a cogeneration system for water heating, and a power winder to encourage use of their pool cover. These upgrades are anticipated to result in 209,940 gallons/year of water savings and 321,948 kWh/year of energy savings.

Implementation Plan: OUSD has a Local Business Policy (a copy is included with project documentation), which requires 50% mandatory local participation on all OUSD construction projects. To this end, OUSD will use a local business to complete the project, with at least 25% of the project work hours performed by residents of a DAC.

Schools prefer to undertake construction while students are not in session. The scope of work such as leak repair and faucet upgrades which could be completed during July 2015 after funding award prior to the fall school session will be installed, and the larger projects including the pool co-generation projects will be installed during summer 2016. All work at both schools will be completely installed and verified by the end of 2016.

Work Plan Tasks

Task 1. Direct Project Administration and Reporting:

A. Project Administration for StopWaste staff: This task consists of the project administration responsibilities, which includes coordinating agency responsibilities and managing cost commitments. This task also includes providing other supporting documentation required for this grant agreement (e.g., financial statements) to the State prior to disbursement of grant funds for construction or monitoring activities for this Project.

B. Reporting from project sponsor (OUSD):

- Quarterly Progress Reports: This task consists of preparing progress reports detailing work completed in prior quarter and submittal to StopWaste for submittal to the California Department of Water Resources (DWR).
- Invoices: This task consists of preparing quarterly invoices including relevant supporting documentation for submittal to StopWaste for submittal to DWR.
- Draft and Final Project Completion Report: This task consists of preparing draft Final Project Completion Report and submitting to StopWaste for submittal to DWR for DWR Project Manager's comment and review no later than 90 days after project completion. This task also consists of preparing the Final Report addressing StopWaste/DWR's comments.

Task 1 Deliverables:

- Local Project Sponsor Agreement with StopWaste
- Financial Statements
- Project Performance Monitoring Plan
- Quarterly Project Progress Reports
- Quarterly Invoices and associated backup documentation
- Draft and Final Project Completion Reports

Task 2. Easement(s)

The project site is located on property owned by Oakland Unified School District. No land purchase or easements are necessary. This task does not apply to this project.

Task 3. Project Evaluation/Design/Engineering

A. Assessment and Evaluation: Initial water/energy audits and assessment of potential water and energy savings are complete.

B. Preliminary and Final Designs: Results of the water/energy audits informed project design. Upon funding award, the project will finalize design specifications. This task is 75% complete.

C. Preliminary and final construction cost estimates: Preliminary cost estimates have been received; final cost estimates are forthcoming if funding is awarded (due in January 2015). This task is 50% complete.

Task 3 Deliverables:

- 100% complete project design plans

Task 4. Environmental Documentation

This task consists of completing the required approval and compliance under California Environmental Quality Act (CEQA) (Categorical Exemption will be completed) and no National Environmental Policy Act (NEPA) compliance is necessary.

Task 4 Deliverables:

- A copy of CEQA compliance documentation

Task 5. Permitting

Acquisition of applicable local permits and clearances will be obtained prior to the start of project installation.

Task 5 Deliverables:

- Copies of all project permits

Task 6. Project Monitoring Plan

A Project Monitoring Plan will be developed that describe tools to be used to monitor and measure project benefits. At a minimum, the Plan will include the following information:

a) Baseline (pre-project) water use and energy use.
b) Proposed savings
c) Brief discussion of how water and energy savings will be monitored.
d) Methodology of monitoring.
e) Frequency of monitoring.
f) Location of monitoring points.
g) Performance targets

This plan will be submitted to StopWaste for review prior to submittal to DWR for grant contracting. The Project Monitoring Plan will be implemented for 10 years or until the life of the installed features has ended, whichever happens first.

Task 6 Deliverables:

- Project Monitoring Plan

Task 7. Construction/Implementation

A. Construction Contracting: Construction bids will be solicited following OUSD's Local Business Policy, which requires 50% mandatory local participation on all OUSD construction projects. To this end, OUSD will use a local business to complete the project, with at least 25% of the project work hours performed by residents of a DAC.

B. Project Construction/Implementation:

1. McClymonds High School

- Project Construction: The project involves installation of kitchen faucet aerators, repairing leaks in the kitchen, installation of a variable frequency drive pool pump, installation of a cogeneration system for water heating, and installation of a pool cover power winder. These upgrades will be installed in phases which will correspond with the summer months when students are not present on the school campuses.

- Construction Process: The site will be prepared and all equipment purchased and delivered to the site. Signage and safety fencing will be posted, if necessary, but the facilities will remain open during construction. Hot water supply may be temporarily shut down during installation of the pump upgrades. Upon completion of the upgrade installations, the new equipment will be tested to confirm functioning. All construction signage and debris will be removed from the site upon project completion.

2. Castlemont High School

- Project Construction: The project involves installation of upgrades to the industrial kitchen refrigerator, installation of a scheduling controller for the kitchen water heater booster pump, installation of a variable frequency drive pool pump, installation of a cogeneration system for water heating, and installation of a pool cover power winder. These upgrades will be installed in phases which will correspond with the summer months when students are not present on the school campuses.
- Construction Process: The site will be prepared and all equipment purchased and delivered to the site. Signage and safety fencing will be posted, if necessary, but the facilities will remain open during construction. Hot water supply may be temporarily shut down during installation of the pump upgrades. Upon completion of the upgrade installations, the new equipment will be tested to confirm functioning. All construction signage and debris will be removed from the site upon project completion.

Task 7 Deliverables:

- Construction bidding, contracting, and award documentation
- Pre-construction, construction, and post-construction photographs for both schools
- Performance testing results for both schools
- Project completion verification for both schools

Project 5 – San Leandro USD School Upgrades

Project Proponent: San Leandro Unified School District (SLUSD)

Project Goals and Funding Need: SLUSD is committed to installing technology that reduces end-use demand for water and energy. Water and energy savings will be realized by upgrading pools, converting lawns to drought tolerant landscaping and efficient irrigation systems, and upgrading toilets, sinks and urinals.

Project Description: Water and energy efficiency upgrades will be installed at four San Leandro schools: Garfield Elementary, Monroe Elementary, John Muir Middle School, and Woodrow Wilson Elementary. Additionally, solar water heating systems will be installed at two SLUSD pools at San Leandro High School.

1. Garfield Elementary is located at 13050 Aurora Drive. The site includes 0.25 acres of landscaping with 40% irrigated lawn, and approximately 2 acres of 100% irrigated turf. The rest of the site is paved. The current irrigation system is outdated and inefficient.

2. Monroe Elementary is located at 3750 Monterey Boulevard. The site includes 0.27 acres of landscaping with 60% irrigated lawn, and 3.3 acres of 80% irrigated turf. The rest of the site is paved. The current irrigation system is outdated and inefficient.

3. John Muir Middle School is located at 1444 Williams Street. The site includes 4.3 acres with 80% irrigated turf, 2.8 acres with 95% irrigated turf, and 0.4 acres of landscaping with 20% irrigated lawn. The rest of the site is paved. The current irrigation system is outdated and inefficient.

4. Woodrow Wilson Elementary is located 1300 Williams Street. The site includes 0.7 acres with 70% irrigated lawn and 3.6 acres with 75% irrigated turf. The rest of the site is paved. The current irrigation system is outdated and inefficient.

5. San Leandro High School, located at 2200 Bancroft Way, has two swimming pools that are currently heated using the school's standard water heater system. The instructional pool contains 47,794 gallons and the competition pool contains 366,202 gallons of water. These pools are used for recreation and athletics programs by students throughout the San Leandro USD.

The four elementary and middle schools are located in a DAC and serve as educational facilities for many students that reside in a DAC. The proposed upgrades will directly benefit the students and the local community by saving approximately 1.7 million gallons of water per year and improving water supply reliability.

The pools at San Leandro High School are not located within a DAC area. However, a DAC area is within a half-mile walking distance from the school. Students from the four elementary and middle schools included in this project have access to this swimming pool. This pool facility directly serves the DAC community.

Proposed upgrades include installation of water-saving high efficiency toilets, faucet aerators, landscape irrigation upgrades, and energy efficiency upgrades.

- The elementary and middle schools will be upgraded with 27 1.28 gallons/flush toilets, 27 faucet aerators on hand washing sinks, and 13 0.125 gallons/flush urinals. These upgrades are anticipated to result in 141,500 gallons/year of water savings.

- Irrigated landscaping and playing fields at four of the schools will be upgraded with weather-based irrigation controllers. At the four elementary and middle schools, approximately 61,000 sq. ft. of front lawns not used for recreation will be converted to low water-using, climate-adapted landscaping with efficient irrigation systems. The near zero-waste technique of sheet mulching will be used to convert the lawns. The new irrigation controllers will affect a total of approximately 554,300 square feet (12.7 acres) of landscaped areas and turf at the school campuses. These upgrades are anticipated to result in 1.54 million gallons/year of water savings.

- The pools at San Leandro High School will be upgraded with solar heating systems. A large solar awning will be constructed adjacent to the competition pool and collectors will be installed on the rooftops for heating the instructional pool. These upgrades are anticipated to result in 395,280 kWh/year of energy savings (13,500 therms/year).

Implementation Plan: SLUSD will use local businesses to implement the water and energy upgrades at the five schools.

Schools prefer to conduct construction projects while students are not in session. The toilet, urinal, and faucet upgrades, as well as the irrigation upgrades would be completed during the summers of 2015 and 2016, after funding award and prior to the beginning of the fall school session. Pool upgrade work will take one to two months would begin as early as July 1, 2016 and be complete by August 31, 2016.

Work Plan Tasks

Task 1. Direct Project Administration and Reporting:

A. Project Administration for StopWaste staff: This task consists of the project administration responsibilities, which includes coordinating agency responsibilities and managing cost commitments. This task also includes providing other supporting documentation required for this grant agreement (e.g., financial statements) to the State prior to disbursement of grant funds for construction or monitoring activities for this Project.

B. Reporting from project sponsor (SLUSD):

- Quarterly Progress Reports: This task consists of preparing progress reports detailing work completed in prior quarter and submittal to StopWaste for submittal to the California Department of Water Resources (DWR).

- Invoices: This task consists of preparing quarterly invoices including relevant supporting documentation for submittal to StopWaste for submittal to DWR.

- Draft and Final Project Completion Report: This task consists of preparing draft Final Project Completion Report and submitting to StopWaste for submittal to DWR for DWR Project Manager's

comment and review no later than 90 days after project completion. This task also consists of preparing the Final Report addressing StopWaste/DWR's comments.

Task 1 Deliverables:

- Local Project Sponsor Agreement with StopWaste
- Financial Statements
- Project Performance Monitoring Plan
- Quarterly Project Progress Reports
- Quarterly Invoices and associated backup documentation
- Draft and Final Project Completion Reports

Task 2. Easement(s)

The project site is located on property owned by the project proponent. No land purchase or easements are necessary. This task does not apply to this project.

Task 3. Project Evaluation/Design/Engineering

A. Assessment and Evaluation: The water/energy audits and assessment of potential water and energy savings are complete for all five schools.

B. Preliminary and Final Designs: Results of the water/energy audits informed project designs. This task is 50% complete. Additional design and engineering will be necessary for the pool upgrades.

C. Preliminary and final construction cost estimates: Preliminary cost estimates have been received for all five schools; final cost estimates are forthcoming if funding is awarded (due in January 2015). This task is 50% complete.

Task 3 Deliverables:

- 100% complete project design plans

Task 4. Environmental Documentation

This task consists of completing the required approval and compliance under California Environmental Quality Act (CEQA) (a Categorical Exemption will be completed) and no National Environmental Policy Act (NEPA) compliance is necessary.

Task 4 Deliverables:

- A copy of CEQA compliance documentation

Task 5. Permitting

Acquisition of applicable local permits and clearances will be obtained prior to the start of project installation.

Task 5 Deliverables:

- Copies of project permits

Task 6. Project Monitoring Plan

A Project Monitoring Plan will be developed that describe tools to be used to monitor and measure project benefits. At a minimum, the Plan will include the following information:

a) Baseline (pre-project) water use and energy use.
b) Proposed savings
c) Brief discussion of how water and energy savings will be monitored.
d) Methodology of monitoring.
e) Frequency of monitoring.
f) Location of monitoring points.
g) Performance targets

This plan will be submitted to StopWaste for review prior to submittal to DWR for grant contracting. The Project Monitoring Plan will be implemented for 10 years or until the life of the installed features has ended, whichever happens first.

Task 6 Deliverables:

- Project Monitoring Plan

Task 7. Construction/Implementation

A. Construction Contracting: SLUSD will solicit bids for work and award contracts to licensed and qualified contractors. The bid process will follow protocol for a publicly bid processes necessary for use of CA state low income housing tax credit funding.

B. Project Construction/Implementation:

1. Garfield Elementary

- Project Construction: This task includes installation of high efficiency toilets, urinals, faucet aerators, and installation of weather-based irrigation controllers for turf and landscaping irrigation. The front lawn will be converted to low water-using landscaping with efficient irrigation. These upgrades will be installed in phases which will correspond with the summer months when students are not present on the school campuses.
- Construction Process: The site will be prepared and all equipment purchased and delivered to the site. Signage and safety fencing will be posted, if necessary. Upon completion of the upgrade installations, the new equipment will be tested to confirm functioning. All construction signage and debris will be removed from the site upon project completion.

2. Monroe Elementary

- Project Construction: This task includes installation of high efficiency toilets, urinals, and faucet aerators, and installation of weather-based irrigation controllers for turf and landscaping irrigation. The front lawn will be converted to low water-using landscaping with efficient irrigation. These upgrades will be installed in phases which will correspond with the summer months when students are not present on the school campuses.
- Construction Process: The site will be prepared and all equipment purchased and delivered to the site. Signage and safety fencing will be posted, if necessary. Upon completion of the upgrade installations, the new equipment will be tested to confirm functioning. All construction signage and debris will be removed from the site upon project completion.

3. John Muir Middle School

- Project Construction: This task includes installation of high efficiency toilets, urinals, and faucet aerators, and installation of weather-based irrigation controllers for turf and landscaping irrigation. The front lawn will be converted to low water-using landscaping with efficient irrigation. These upgrades will be installed in phases which will correspond with the summer months when students are not present on the school campuses.
- Construction Process: The site will be prepared and all equipment purchased and delivered to the site. Signage and safety fencing will be posted, if necessary. Upon completion of the upgrade installations, the new equipment will be tested to confirm functioning. All construction signage and debris will be removed from the site upon project completion.

4. Woodrow Wilson Elementary

- Project Construction: This task includes installation of high efficiency toilets, urinals, and faucet aerators, and installation of weather-based irrigation controllers for turf and landscaping irrigation. The front lawn will be converted to low water-using landscaping with efficient irrigation. These

upgrades will be installed in phases which will correspond with the summer months when students are not present on the school campuses.

- Construction Process: The site will be prepared and all equipment purchased and delivered to the site. Signage and safety fencing will be posted, if necessary. Upon completion of the upgrade installations, the new equipment will be tested to confirm functioning. All construction signage and debris will be removed from the site upon project completion.

5. San Leandro High School Pools

- Project Construction: This task includes installation of an energy efficient solar water pre-heating system for two pools. Construction of the solar pre-heating system will entail installation of a roof and shade structure, collectors, plumbing and piping work, and installation of valve sensors and gauges. These upgrades will be installed in one to two months during the summer of 2015 or 2016.
- Construction Process: The site will be prepared and all equipment purchased and delivered to the site. Signage and safety fencing will be posted, if necessary. Upon completion of the upgrade installations, the new equipment will be tested to confirm functioning. All construction signage and debris will be removed from the site upon project completion.

Task 7 Deliverables:

- Construction bidding, contracting and award documentation
- Pre-construction, construction, and post-construction photographs for each school
- Performance testing results for each school
- Project completion verification for each school

Project 6 – San Leandro Park Upgrades

Project Proponent: City of San Leandro Parks Department

Project Goals and Funding Need: The City of San Leandro Parks Department is requesting Water-Energy Grant Program funding to implement water- and energy-saving landscaping and infrastructure improvements in three public parks located directly in a disadvantaged community (DAC) and one public park in direct proximity to a DAC and heavily used by the community who resides in the DAC.

Overall, the San Leandro Parks Upgrades project is estimated to result in 2.25 million gallons per year (MGY) of water savings and 110 tons of greenhouse gas reductions from the landscaping and irrigation system upgrades. Irrigation well pump upgrades will reduce electricity use by about 3,0362 kWh per year.

Funding of this project will enable the City of San Leandro to convert nearly two acres of high water-using lawns to low-water landscaping using the Bay-Friendly Basics approach, a high performance landscape standard developed by StopWaste and implemented in voluntary and mandatory local government programs throughout the region. When implemented in a renovated landscape, the nine best practices that make up the Bay-Friendly Basics standard:

- Reduce water use by 50% to 90%
- Reduce runoff by 73% to 90%
- Reduce greenhouse gas emissions by up to 53.5 tons CO2E/acre-year
- Increase the soil's ability to retain water
- Reduce fertilizer and pesticide use, erosion, green waste and fuel use

Three of the parks in this project—Williams Street Island Park, Halcyon Park and Thrasher Park—are located in DAC areas and provide vital recreation space for the surrounding communities. The fourth park, Marina Park, is surrounded by DACs and is an important amenity for nearby residents living in DACs. These upgrades to the landscaping and irrigation systems will directly benefit the local communities by increasing water supply reliability and reducing utility service costs. These investments will help ensure that these four parks are maintained in healthy, safe, cost-effective manner and that they remain a valuable asset for the local DAC area and larger East Bay community.

Project Description: Water and energy efficiency upgrades will be installed at four public parks in San Leandro: Marina Park, Williams Street Island Park, Halcyon Park and Thrasher Park.

1. Marina Park is a 30-acre regional park located at 14001 Monarch Bay Drive. Approximately 75% of the park area is irrigated lawn, while trees and shrubs account for about 10% of the park area. The Parks Department proposes to use sheet mulch to convert high water-using lawn in six locations (80,000 sq. ft. total) to water-efficient, Bay-Friendly landscaping. They also propose to

replace the irrigation system in these areas with high efficiency drip irrigation. These upgrades will reduce water consumption by about 2 MGY.

2. Williams Street Island Park is located at 1600 Williams Street and encompasses 12,000 sq. ft. This small pocket park consists of irrigated lawn with a few trees. There are no recreation features other than the lawn. The Parks Department is proposing to use sheet mulch to convert all the turf to low water-using, Bay-Friendly landscaping. They will also install efficient drip irrigation. In addition, they will replace the existing manually adjusted irrigation controller with a Rain Master "smart" controller that automatically adjust irrigation schedules based on the weather. The Parks Department will also upgrade the irrigation system with a new master valve and flow meter. These upgrades will reduce water use by approximately 200,000 gallons per year, a reduction of 62%.

3. Halcyon Park is located at 1245 147th Avenue and encompasses almost 5 acres. Irrigated lawn covers the majority of this neighborhood park, which is currently irrigated year-round with an outdated groundwater well pump that is over 25 years old. The Parks Department proposes to replace the existing 10 horsepower (HP) pump with an energy-efficient, variable frequency drive (VFD) pump that will save about 3,164 kWh of electricity per year. The new pump will improve energy efficiency but will not result in additional groundwater extraction compared to existing conditions.

4. Thrasher Park, San Leandro's oldest park, is located at 1300 Davis Street and encompasses nearly 4 acres. About 75% of this area is turf (primarily a baseball field) that is currently irrigated year-round with an outdated groundwater well pump that is over 25 years old. The Parks Department proposes to replace the existing 10 HP groundwater well pump with an energy-efficient, VFD pump that will save about 12,016 kWh of electricity per year. The new pump will improve energy efficiency but will not result in additional groundwater extraction compared to existing conditions.

The San Leandro Parks upgrades fall into two categories:

- Lawn to water-efficient landscape conversion. At Marina and Williams Street Island Parks, a total of 92,000 sq. ft. (2.1 acres) will be transformed from high water-using turf to high performance landscaping. These upgrades will reduce water use by about 81% (saving 2.2 MGY). These upgrades will comply with the Bay-Friendly Basics landscape standard developed by StopWaste for private and public properties in Alameda County. The Bay-Friendly Basics consist of nine best practices that together provide a cost-effective approach to reducing landscape water use, runoff, greenhouse gas emissions, maintenance labor costs, fertilizer and pesticide use, erosion, green waste and fuel use. The scope of work includes:
    - Using sheet mulch, a near zero waste approach to turf conversion. Layers of recycled cardboard, compost and mulch will be placed over the existing turf. The turf and cardboard gradually decompose, enriching the soil. Every acre of turf that is sheet

mulched keeps 85 tons of sod out of the landfill or prevents the use of 10 lbs. of herbicides.

- Amending the soil with 1 inch of compost. Adding this amount of compost brings life to the soil, helps plants thrive, and reduces greenhouse gases by 52 MTCO2e per acre.
- Grading the site to accommodate 3 to 6 inches or more of recycled mulch made from local plant debris and wood waste. Covering the soil with a thick layer of organic mulch helps retain moisture in the soil, improves soil health and controls weeds without herbicides.
- Installing low water-using ground cover, shrubs and trees suitable for the local climate.
- Installing efficient subsurface drip irrigation.

- Irrigation controller and well pump upgrades. At Williams Street Island Park, an outdated manually adjusted irrigation controller will be replaced with an automatically adjusting controller that will save 65,000 gallons of water per year. At Thrasher and Halcyon Parks, 25-year old well pumps will be replaced with energy-efficient variable frequency drive pumps, saving about 15,181 kWh of electricity per year.

Implementation Plan: The City's engineering department will develop design and construction specifications, including ensuring that the projects meet the Bay-Friendly Basics requirements. The work will be carried out by contractors and will be put out to bid. Depending on the scope of the project, staff may hold pre-bid meetings. After awarding the contracts, staff will hold pre-construction meetings with all the parties and the contractors. Once construction begins, onsite inspections will be made by the engineering department to ensure the specifications are followed. Prior to final payment, a final walkthrough will be conducted to ensure that all the work was completed according to the specifications.

The park upgrades will be implemented in two phases: summer of 2015 and summer of 2016. Phase 1 will include upgrades to at Marina Park and 12,000 sq. ft. of Williams Street Island Park. Phase 2 will include finish remaining upgrades at Marina Park, installation of smart irrigation controllers at Williams Street Island Park, and installation of the new well pumps at Halcyon and Thrasher Parks. All work will be complete by June 30, 2016.

Work Plan Tasks

Task 1. Direct Project Administration and Reporting:

A. Project Administration for StopWaste Staff: This task consists of the project administration responsibilities, which includes coordinating agency responsibilities and managing cost commitments. This task also includes providing other supporting documentation required for this grant agreement (e.g., financial statements) to the State prior to disbursement of grant funds for construction or monitoring activities for this Project.

B. Reporting from project sponsor (City of San Leandro):

- Quarterly Progress Reports: This task consists of preparing progress reports detailing work completed in prior quarter and submittal to StopWaste for submittal to the California Department of Water Resources (DWR).

- Invoices: This task consists of preparing quarterly invoices including relevant supporting documentation for submittal to StopWaste for submittal to DWR.
- Draft and Final Project Completion Report: This task consists of preparing draft Final Project Completion Report and submitting to StopWaste for submittal to DWR for DWR Project Manager's comment and review no later than 90 days after project completion. This task also consists of preparing the Final Report addressing StopWaste/DWR's comments.

Task 1 Deliverables:

- Local Project Sponsor Agreement with StopWaste
- Financial Statements
- Project Performance Monitoring Plan
- Quarterly Project Progress Reports
- Quarterly Invoices and associated backup documentation
- Draft and Final Project Completion Reports

Task 2. Easement(s)

The project site is located on property owned by the project proponent. No land purchase or easements are necessary. This task does not apply to this project.

Task 3. Project Evaluation/Design/Engineering

A. Assessment and Evaluation: The assessment of potential water and energy savings are complete for all 5 parks.

B. Preliminary and Final Designs: The landscaping upgrades at Marina Park and Williams Street Island Park will meet the requirements of the Bay-Friendly Basics checklist. The landscaping design is 50% complete. Specifications for irrigation controller and pump upgrades are complete.

C. Preliminary and final construction cost estimates: Preliminary cost estimates have been developed for all 5 parks; final cost estimates are forthcoming.

Task 3 Deliverables:

- 100% complete project design plans

Task 4. Environmental Documentation

This task consists of completing the required approval and compliance under California Environmental Quality Act (CEQA) (a Categorical Exemption will be completed) and no National Environmental Policy Act (NEPA) compliance is necessary.

Task 4 Deliverables:

- A copy of CEQA compliance documentation

Task 5. Permitting

Acquisition of applicable local permits and clearances will be obtained prior to the start of project installation.

Task 5 Deliverables:

- Copies of project permits

Task 6. Project Monitoring Plan

A Project Monitoring Plan will be developed that describe tools to be used to monitor and measure project benefits. At a minimum, the Plan will include the following information:

a) Baseline (pre-project) water use and energy use.
b) Proposed savings
c) Brief discussion of how water and energy savings will be monitored.

d) Methodology of monitoring.
e) Frequency of monitoring.
f) Location of monitoring points.
g) Performance targets

This plan will be submitted to StopWaste for review prior to submittal to DWR for grant contracting. The Project Monitoring Plan will be implemented for 10 years or until the life of the installed features has ended, whichever happens first.

Task 6 Deliverables:

- Project Monitoring Plan

Task 7. Construction/Implementation

A. Construction Contracting: This task consists of construction contracting including solicitations for bids and awards of contracts. Contractor solicitations are put out to bid.

B. Project Construction/Implementation:

1. Marina Park

- Project Construction: This task includes conversion of lawn turf in six locations (80,000 sq. ft. total) to low water-using, climate-appropriate landscaping. This includes removing a 12 to 18 inch strip of lawn near all hardscape to lower the grade so as to accommodate 3 to 6 inches of mulch; capping all sprinklers; running and burying drip line for all plants; covering sod with sheet mulch; installing low water-using ground cover, trees and other plants; and installing recycled mulch made from green waste or wood waste. The six sites will be upgraded in phases with each phase lasting two weeks, with the entire park upgrade complete in 12 weeks. Work will be completed no later than June 30, 2016.
- Construction Process: The site will be prepared and all materials purchased and delivered to the site. Signage and safety fencing will be posted, if necessary, but the park will remain open to the public during construction. Upon completion of the irrigation upgrade installation, the irrigation system will be tested to confirm functioning. All construction signage and debris will be removed from the site upon project completion.

2. Williams Street Island Park

- Project Construction: This task includes conversion of 12,000 sq. ft. of lawn turf to low water-using, climate appropriate landscaping. This includes removing a 12 to 18 inch strip of sod near all hardscape to lower the grade so as to accommodate 3 to 6 inches of mulch; capping all sprinklers; running and burying drip line for all plants; covering sod with sheet mulch; installing low water-using ground cover, trees and other plants; and installing recycled mulch made from green waste or wood waste. It also includes installation of a Rain Master “smart” irrigation controller. Installation of these upgrades will require two weeks of construction. Work will be completed no later than June 30, 2016.
- Construction Process: The site will be prepared and all material and equipment purchased and delivered to the site. Signage and safety fencing will be posted, if necessary. Upon completion of the irrigation upgrade installation, the irrigation system will be tested to confirm functioning. All construction signage and debris will be removed from the site upon project completion.

3. Halcyon Park

- Project Construction: This task includes removal of the existing well pump and installation of a 10 HP variable frequency drive groundwater well pump. This pump will improve electrical energy use efficiency. The new pump will require less than one month to install. The pump will be installed by June 30, 2016.

- Construction Process: The site will be prepared and all equipment purchased and delivered to the site. Signage and safety fencing will be posted, if necessary, but the park will remain open to the public during construction. Upon completion of the pump installation, it will be tested to confirm functioning. All construction signage and debris will be removed from the site upon project completion.

4. Thrasher Park

- Project Construction: This task includes removal of the existing well pump and installation of a 10 HP variable frequency drive groundwater pump and electrical controls. This pump will improve electrical energy use efficiency. The new pump will require less than one month to install. The pump will be installed by June 30, 2016.
- Construction Process: The site will be prepared and all equipment purchased and delivered to the site. Signage and safety fencing will be posted, if necessary, but the park will remain open to the public during construction. Upon completion of the pump installation, it will be tested to confirm functioning. All construction signage and debris will be removed from the site upon project completion.

Task 7 Deliverables:

- Construction bidding, contracting and award documentation
- Pre-construction, construction, and post-construction photographs for each park
- Performance testing results for each park
- Project completion verification for each park

Project 7 – Program Management

Project Proponent: StopWaste

Project Goals and Funding Need: This project includes overall program management to implement the proposed scope of work, as well as administrative support activities. The goal of this project is to ensure that grant funds are properly managed and administered in accordance with California Department of Water Resources (DWR) guidelines and requirements. Funding for administration, which includes reporting, invoicing and financial record keeping, comprises 5% of the total grant amount requested.

Project Description: The *Water-Energy Upgrades in Alameda County DACs* program consists of six projects addressing implementation of water and energy conservation efforts that will reduce greenhouse gas emissions. Project 7 (Program Management) contains all coordination and management activities for the six construction projects. The grant management approach is described below.

Grant Administrator and Grant Recipient: StopWaste is the umbrella name for the Alameda County Waste Management Authority (established in 1976), and the Energy Council. Energy Council was created in 2013 by the County of Alameda and 12 cities in the county to assist members with developing and implementing programs and policies that reduce energy demand, increase energy efficiency, advance the use of clean, efficient and renewable resources, and help create climate resilient communities. Energy Council adopted the water/energy nexus as one of its priority areas for programs and funding.

The Energy Council's programmatic activities are an extension of StopWaste's pioneering work over more than two decades helping local governments, businesses, schools and residents solve critical solid waste issues while also capturing multiple benefits in related fields (e.g., energy, water, health, and climate change). StopWaste will administer the grant and manage its implementation in partnership with two affordable multifamily property owners, two Alameda County School districts, a city Parks Department, and hospitality businesses located in Alameda County DACs. StopWaste has worked with multifamily property owners on construction programs for over a decade and is currently managing a $9 million regional multifamily retrofit program in the Bay Area. In addition, StopWaste has implemented innovative environmental education program in schools throughout Alameda County. StopWaste also has extensive experience developing and administering programs that deliver landscape-related water savings and greenhouse gas emission reductions at commercial and civic properties.

Program Management: StopWaste will assign an experienced program manager to oversee the performance of this proposal and coordinate with partner organizations. In addition, the StopWaste Grant Manager will provide grant oversight and coordination with all Local Project Sponsors, ensuring completeness of reporting and invoicing and ensuring that project progress is being made according to schedule and concomitant with progress reports. Since 2010, StopWaste has managed more than $15 million in state and federal grants for regional green building, energy and water efficiency, and sustainable landscaping programs. StopWaste will be administering the $5.9 million regional water conservation project that was recently awarded as part of the Bay Area IRWM's Prop 84

Drought Round grant program. The agency is experienced in meeting reporting requirements for state, federal, utility, and foundation grants and contracts.

Local Project Partners include: Eden Housing, East Bay Asian Development Corporation, San Leandro Unified School District, San Leandro Parks Department, Total Ozone Technology, and Oakland Unified School District. StopWaste will contract with each of the Local Project Partners to ensure that grant requirements are satisfied and the work is fully implemented, which will reduce risk exposure to StopWaste in executing a grant agreement with the State on behalf of the Local Project Sponsors. All agreements will have similar general conditions, but each agreement will also be tailored to the specific funding and grant requirements applicable to that project. Generally, Local Project Partner Contracts will address issues affecting a specific project.

Agreements with Local Project Partners will be established by StopWaste staff as described below:

- Negotiate and finalize Local Project Partner Contracts with each Local Project Partner that will receive grant funding. Each Local Project Partner will be expected to execute such an agreement before reimbursement is requested or distributed.
- Each Local Project Partner Contract will include standard formats for reporting project progress and making reimbursement requests, dispute resolution, and other conditions as specified in the Grant Agreement between StopWaste and DWR.

Implementation Plan: Program management activities began in September 2014 with a solicitation for potential project partners. StopWaste chose four target sectors—multifamily, schools, institutional, and hospitality—in which they have extensive experience managing efficiency, waste reduction and sustainability programs. The Energy Council Technical Advisory Group, comprised of local government staffing, and the Energy Council governing board, provided leads and input into the proposal design. StopWaste also met with the water suppliers serving Alameda County to coordinate activities.

StopWaste reviewed the final proposal guidelines and DAC maps to narrow down the list of final partners and eligible projects. Project evaluation activities and preliminary cost estimates were conducted in fall 2014, and the current proposal includes scopes of work that are ready for final construction bids. Upon official notification of a successful proposal, StopWaste will coordinate with project partners to solicit final bids for construction. The projects are expected to complete construction between December 2015 and December 2016. Grant administration activities will be initiated by the DWR contracting phase and will continue throughout the grant reimbursement and final reporting phases.

Work Plan Tasks

Task 1. Direct Project Administration and Reporting:

A. Project Administration:

- *Grant Application Expenses:* If this proposal is awarded, StopWaste will invoice for grant preparation activities that took place between September – December 2014.

- *Contracting with DWR:* StopWaste will negotiate and finalize an agreement with DWR for the entire duration of the grant program, and ensure that the necessary Board approvals are in place to fully authorize program implementation.
- *Invoicing and Reimbursements:* Reimbursement requests (invoices) will be submitted to DWR in accordance with the format specified by the DWR Grant Agreement. StopWaste will prepare the reimbursement requests based on project invoices provided by the Project Partners. Once reviewed, StopWaste will submit the reimbursement request to DWR. After StopWaste receives reimbursement from the State, funds will be disbursed to Project Partners. StopWaste will track each disbursement and cumulative disbursements to date. Records will be maintained in accordance with the DWR Grant Agreement and generally acceptable accounting principles and practices. If needed, a consultant may help to coordinate with Project Partners, maintain records, and track disbursements.
- *Bookkeeping and Auditing:* StopWaste will maintain financial records as required by the DWR Grant Agreement. Financial records will include StopWaste administration costs to date, reimbursements requested from DWR, reimbursements received from DWR, reimbursements disbursed from StopWaste to Project Partners, and any outstanding financial issues. An independent annual audit, as well as a close out audit, will be performed by an independent Certified Public Accountant, using generally accepted accounting principles. The grant accounts will be treated similarly to other StopWaste accounts during auditing.

B. Reporting:

- *Quarterly and Final Reports:* StopWaste with assistance/input from Local Project Partners will prepare and finalize Quarterly Reports. The Reports will be based on quarterly submittals from each Project Partner during the grant period, be prepared per the format specified in the DWR Grant Agreement, and submitted electronically to DWR. The Quarterly Reports will include key milestones achieved, percent completion on each task identified in the work plan, and accumulated cost to date organized by grant-funded costs and non-State match costs for each project. As individual projects near completion, Project Partners will submit a Draft Final Project Report containing a description of the actual work completed, the final schedule showing actual versus planned progress, results, lessons learned, and total project costs. StopWaste will review and submit the draft reports to DWR in accordance with the DWR Grant Agreement. After DWR review, StopWaste will direct Project Partners to finalize their project reports. The Final Project Reports will be submitted to DWR within 90 days of DWR verification that all tasks are completed.

Task 1 Deliverables:

- Final DWR Grant Agreement
- StopWaste Executive Board approval of Grant Agreement
- Final Work Plan, Schedule, and Budget for the Grant Agreement
- Invoices submitted to DWR
- Quarterly Reports submitted to DWR
- Draft Final and Final Reports submitted to DWR
- Annual financial audits

Task 2. Easement(s)

This task does not apply to program management.

Task 3. Project Evaluation/Design/Engineering

A. Assessment and Evaluation: Initial evaluations have already been conducted for all projects. If this proposal is awarded, StopWaste will invoice for initial feasibility analysis costs that were incurred between September through December 2014.

B. Preliminary and Final Designs: Scopes of work for each project are included in this proposal. Significant changes to the scope of work are not anticipated.

C. Preliminary and final construction cost estimates: Preliminary cost estimates are included for each project in this proposal. Final construction cost estimates will be obtained by the project partners upon award of the grant.

Task 4. Environmental Documentation

This task does not apply to program management.

Task 5. Permitting

This task does not apply to program management.

Task 6. Project Monitoring Plan

A Proposal Monitoring Plan will be developed as required by DWR contracting. The Proposal Monitoring Plan is described in Application Attachment 6.

Task 7. Construction/Implementation

Construction Contracting: StopWaste will negotiate and finalize Local Project Partner Contracts (contracts) with each entity that will receive grant funding. Each agency will be expected to execute an agreement before reimbursement is requested or distributed. Within 30 days of Grant Award, StopWaste will finalize the updated work plan, monitoring plan, schedule, and budget for the grant agreement with possible assistance from a hired consultant.

Project Construction/Implementation:

- *Issue Local Project Partner Contracts:* This task includes negotiation and finalization of contracts with each Project Partner that will receive grant funding. Each Contract will include standard formatting for reporting project progress and reimbursement requests, dispute resolution, and other conditions specified in the Grant Agreement between StopWaste and DWR.
- *Coordination and Field Verification:* The Grant Manager will maintain regular contact with the Project Partners throughout the construction phases of each project to ensure that implementation is on track. StopWaste will conduct site visits to verify progress on projects, and coordinate the DWR final inspection for project completion and release of retained funds.
- *Project Management:* Ongoing administration and management of Project Partners and possible contractor(s), accounting, legal work, reviewing work products, approving invoices, and preparing documents for DWR review. At the end of the grant period the files will maintained by StopWaste for at least three years.

Task 7 Deliverables:

- Implementation Contracts with all Local Project Partners
- Consultant contract (if needed)