

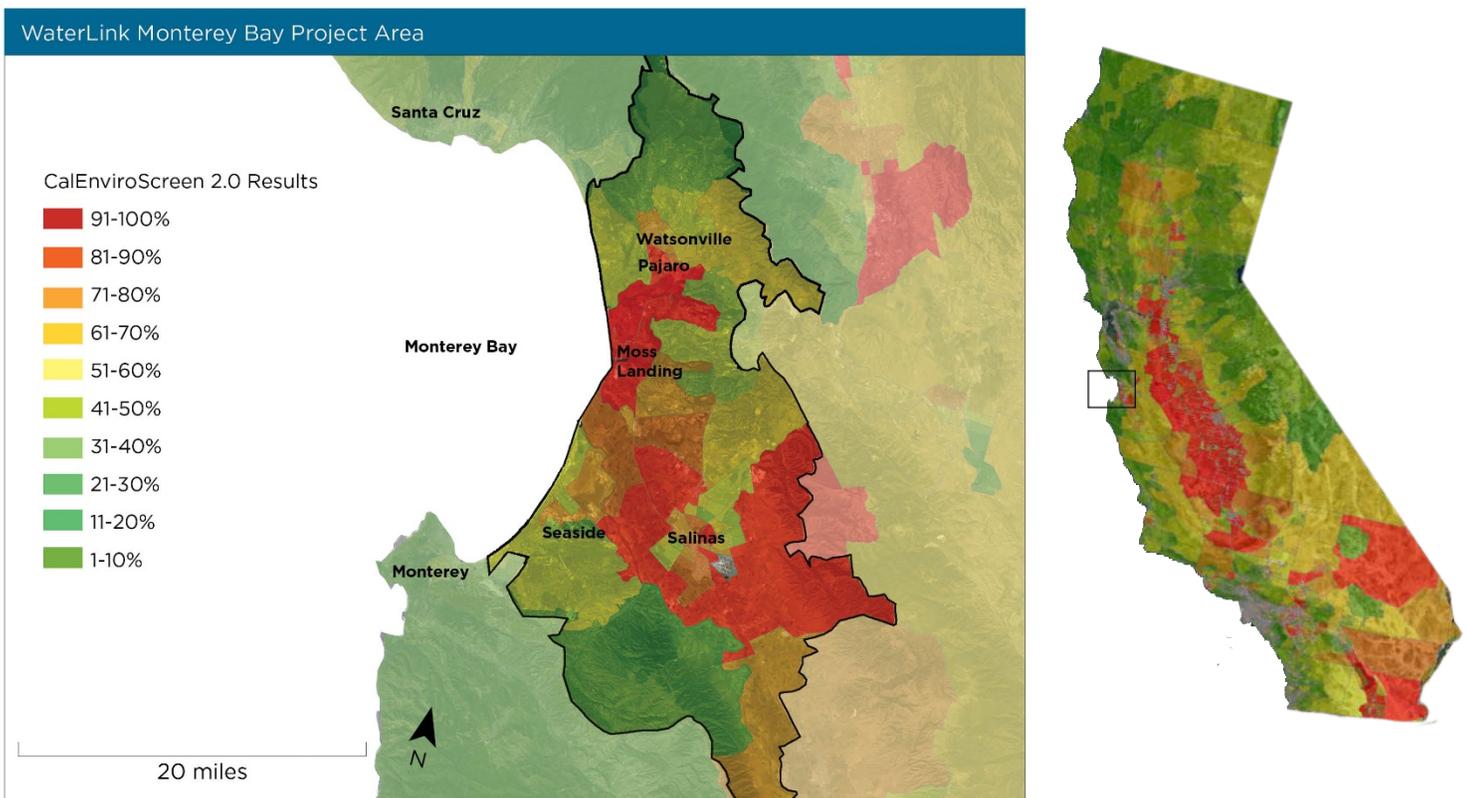
## Program Description

In collaboration with Monterey Bay area water agencies, Ecology Action proposes the **WaterLink - Monterey Bay Area** direct installation program. **WaterLink** is a water-energy savings program that will provide turnkey water-energy upgrades to residents and businesses in Disadvantaged Communities (DACs) in the Monterey Bay area. **WaterLink** will deliver a suite of proven efficiency measures that guarantee lasting water and energy savings and produce immediate economic benefits for DAC residents and businesses by reducing their utility bills.

**WaterLink** is designed to curb greenhouse gas emissions and accelerate community resilience to climate change by combining both financial incentives and the expert technical assistance that DAC residents and businesses need to take immediate action to save water and energy.

The **WaterLink** program will provide free door-to-door direct installation of cost-effective, hot water demand management measures in single- and multi-family homes and commercial kitchens. Additionally, rebates and technical assistance will be offered to commercial kitchens to incentivize upgrades to Energy Star certified equipment. **WaterLink** will directly assist more than 5,700 homes and businesses in targeted communities within Monterey and Santa Cruz Counties. The water and energy saving measures installed by **WaterLink** will provide the following savings over the lifetime of the measures:

- 1,466,931,917 gallons of water savings
- 304,923,379 kWh of energy savings
- 55,284 MTCO<sub>2</sub> equivalent in greenhouse gas emission reduction
- \$1,635,775 in estimated annual utility cost savings for DAC resident and business participants



## The WaterLink Program Advantage

The **WaterLink** program model was designed based on Ecology Action’s 45 years of experience in helping Californians act now to address pressing environmental challenges like water shortages and climate change. Ecology Action has proven experience in delivering the **WaterLink** program model within DACs in Santa Clara County thanks to funding from the DWR 2014 Water-Energy Grant program.

Our successes to date in the **WaterLink - Santa Clara Valley** program confirm that the targets we aim for in the proposed **WaterLink - Monterey Bay Area** program are achievable: since April of 2016, Ecology Action has installed water- and energy-saving equipment in over 2,500 homes and 650 businesses in DAC census tracts and surrounding communities in Santa Clara County. We have provided job training to twelve bilingual/bicultural staff, 36% of whom live in DAC neighborhoods.

Grant funding for the **WaterLink-Santa Clara Valley** program ends in 2017 and Ecology Action is on track to exceed the program’s original savings goals of 95,292 million gallons of water savings and 4,669,385 kg of CO<sub>2</sub> equivalent greenhouse gas reduction, proving through real in-the-field delivery that the scale and projected outcomes of this **WaterLink - Monterey Bay Area** proposal are sound and achievable.

Additionally, since many of the program delivery strategies, database/software solutions and marketing pieces have been developed with 2014 Water-Energy grant funds for Santa Clara, we can repurpose those in the **WaterLink - Monterey Bay Area** program with slight adaptations, thus maximizing the funds going into direct field delivery and program outcomes.

## WaterLink Meets DWR Funding Priorities

The **WaterLink** program will implement cost-effective, indoor hot water conservation measures in single-family and multi-family homes and commercial kitchens in the DAC program regions.

In so doing, **WaterLink** strongly meets the DWR Water-Energy Grant program’s funding priorities to:

- Significantly **reduce greenhouse gas emissions** by targeting water end uses with high embedded energy and installing proven water-energy saving measures.
- **Respond to long-term groundwater aquifer overdraft** and further Monterey Bay water utilities long-term demand reduction goals by maximizing the water conservation achieved per grant dollar spent.
- Provide job training and employment opportunities while reducing utility bills to **help DAC communities thrive economically** and protect the environment.
- Engage DAC residents and businesses to **prepare for climate change in their communities** by reducing water demand.
- **Leverage water district and PG&E rebates** to maximize the benefits of Water-Energy grant funds.
- **Deliver a regional program**<sup>1</sup> in an under-resourced area that has not yet received DWR Water-Energy funding, a region in which none of the water districts have commercial water conservation incentives programs for businesses.



*WaterLink-Santa Clara Valley staffer Nick Lara engages a DAC restaurant manager to install a higher performing PRSV to save water and energy.*

<sup>1</sup> The project area spans **four Integrated Water Management Program areas**, providing direct installation services and conservation education in communities that share common groundwater basins: Santa Cruz County IWRM, Pajaro River Watershed IRWM, Greater Monterey County IWRM, and Monterey Peninsula IRWM

## Project Proponent and Partners

### Project Proponent: Ecology Action Team Advantage

The **WaterLink** team at Ecology Action provides DWR with unparalleled experience in the design and delivery of water and energy efficiency programs serving California. Ecology Action has significantly exceeded its initial contract goals on every water and energy utility program it has been awarded.

Ecology Action places an equal priority on savings goals and customer satisfaction, both of which we achieve by using highly trained field teams and top performing independent contractors. Combining our firm's technical experience in water and energy-efficiency program implementation, vendor contacts, software capabilities, and complementary approaches creates an extremely strong team to tackle the challenging goals set by DWR.

### Ecology Action, WaterLink Lead Implementer

Ecology Action is a California Public Utilities Commission certified Women-Owned Business Enterprise and an award-winning nonprofit environmental consultancy. We make it easy to reduce water and energy consumption while saving money. We design and implement cutting-edge energy efficiency programs, engineering services, and educational campaigns, which assist individuals, businesses, and government agencies to maximize environmental benefits and community well-being. For more than 45 years, Ecology Action has been a leader in developing pragmatic, collaborative conservation programs throughout California. Our staff of 90 full-time professionals includes experts in water and energy efficiency, program design and management, data management, engineering, market research, sales, marketing, renewable energy systems design, community engagement, climate protection, and green building design and construction.

Since our origin in 1970, Ecology Action has partnered with hundreds of agencies and organizations in the course of delivering business-oriented and residential programs in 80 cities and counties throughout California including Monterey and Santa Cruz Counties. We have completed start-to-finish water and energy retrofits for more than 16,000 businesses in that time, including installing 4,894 pre-rinse spray valves since 2005. We have administered over \$70M in incentives in these programs.

In the last 16 years of energy efficiency program delivery, Ecology Action has delivered more than 475 GWh of energy savings to more than 16,000 commercial customers and has exceeded the original energy savings goals on all contracts. These services have conserved more than 213 million gallons of water per year and reduced 107,600 kg of related CO<sub>2</sub> emissions per year all while saving our primarily small to medium business customers over \$47 million on their utility bills yearly over the past decade.

Ecology Action's long history of success is due in large part to our strategy of engaging collaborative partners and community leaders to bring more horsepower, skillsets and resources to program design while also increasing the benefits to program participants.

Ecology Action has been honored with many awards, including being the first two-time winner of the Governor's Environmental and Economic Leadership Award in 2004 and 2013. We are also a California Certified Green Business that was recognized as the CoolCalifornia "Organization of the Year" in 2009 by the California Air Resources Control Board. We have also received five separate Demand Side Integration Awards for Excellent Customer Service and Client Partnership from our longstanding electric utility program partner Pacific Gas and Electric Company in 2011, 2010, and 2009.



*Mihn Nguyen and Jesus Alonzo-Torres (DAC resident) gained professional skills in our job training and now achieve high customer satisfaction ratings from East San Jose WaterLink customers.*

A few of our long-term clients and program funding partners include:

- The US Department of Energy
- Federal EPA Region 9
- Sacramento Municipal Utility District
- Pacific Gas and Electric Company
- Southern California Edison
- Monterey Bay Area public water districts
- State of California agencies including:
  - Department of Water Resources (2014 Water-Energy Grant)
  - State and Regional Water Quality Control Boards
  - CalRecycle
  - Dept. of Toxic Substances Control

## Multilingual Local Outreach Team

In Monterey DAC census tracts, an average of 52% of households speak Spanish in the home, and 51% of Spanish Speakers report speaking English “less than very well” (US Census, 2014). Ecology Action has extensive experience engaging residents and business owners in Spanish and other languages. Primary program information will be delivered verbally and/or in writing in the customer’s preferred language to build trust and achieve high levels of community participation to reach program goals.

Ecology Action is headquartered in the Monterey Bay area and has decades of experience partnering with local water agencies and PG&E to deliver conservation programs. As such, our team has the local relationships and credibility to quickly engage target customers and gain the trust required to assure the adoption of efficiency measures. We will also recruit our field team from DAC areas as we did in our **WaterLink - Santa Clara Valley** project where we were able to recruit 42% of our residential field team and 36% of our overall delivery team from DAC neighborhoods.

Ecology Action’s Santa Cruz office is within 30 miles of the heart of our **WaterLink - Monterey Bay** service area and will house and support the project team. *Please see the WaterLink Project Team organizational chart on page 14.*

## Project Partners

Ecology Action is excited to have developed project-specific collaborations with Monterey Bay utilities to increase the benefits of **WaterLink** program delivery to Monterey Bay Area DACs via utility contributions of equipment, rebates and marketing support. **WaterLink** direct installations will take place in the service territories of the following partner agencies:

- Alisal Water Corporation (Salinas)
- California Water Service Company, Salinas District
- City of Watsonville Public Works and Utilities
- Pajaro Sunny Mesa Community Services District
- Monterey Peninsula Water Management District.

*Please see the end of this Attachment 3 for Letters of Support confirming local water utility collaboration on the project, their committed in-kind contributions, and details of the need of their DAC customers.*



*Having Portuguese, Vietnamese, Spanish, Mandarin, Cambodian and English bilingual/bicultural staff on our WaterLink-Santa Clara Valley team makes it possible to gain the trust and participation of DAC residents.*

## WaterLink Efficiency Measure Selection Details

### Project 1: Single- and Multi-family Residential - Indoor Water and Energy Conservation Retrofits

Our **WaterLink-Monterey Bay Area** proposal focuses on hot water retrofits to shower and faucet aerators and clothes washers in 5,200 homes because they are the top three hot water users in a home.<sup>2</sup>

#### *Why Showerhead and Faucet Aerators*

A 2016 Residential End Use (REU) study found that more than half of residences did not meet current efficiency criteria for clothes washers and that 20% did not meet efficiency criteria for showerheads. Further, we have found in delivering **WaterLink - Santa Clara Valley** that 100% of the DAC homes we service need upgrades of some kind and we are achieving at least a 0.5 gpm faucet conservation improvement in each home we serve.

#### *Why Leak Repair*

Our **WaterLink - Santa Clara Valley** team regularly discovers significant leaks in many of the shower and bathroom faucets where low-flow faucet aerators are installed. The most dramatic example was a home that had several leaking fixtures wasting a total of 325 gallons/day that the renter's landlord would not repair! Because it is demoralizing to leave a resident with a new low-flow aerator that still leaks, we have included a leak repair voucher program in our **WaterLink - Monterey Bay Area** proposal. Repairing leaks sends the right message that "water waste is unacceptable", supports a cultural norm of valuing water, meets DWR water-energy savings goals and reduces utility bills for DAC residents who may be unable to afford the full cost of leak repairs.

### Project 2: Small to Medium Commercial Kitchens - Hot Water Retrofits

Multilingual staff will target 544 commercial kitchens in DAC areas to offer free installation of 544 low flow pre-rinse spray nozzles, 1,632 faucet aerators, and an Energy Star Dishwasher Rebate Program.

#### *Why Pre-Rinse Spray Valves (PRSVs) and Faucet Aerators*

Ecology Action implemented a PRSV direct installation program of 164 valves in the City of Santa Cruz in 2014 and has year-to-date installed 612 PRSVs in businesses in Santa Clara County. In both cases we have found that the average, measured flow rate of existing PRSVs installed in businesses today is 2 gpm (median 1.6 gpm). By upgrading to either a 0.74 gpm or 1.07 gpm PRSV (depending on building water pressure) we have demonstrated that there is on average a 1.1 gpm improvement potential per PRSV, resulting in an average water savings of 37,394 gallons of year/business from one PRSV alone. In light of the affordability of the replacement valves, this results in a high water and energy savings return. Furthermore we are finding dramatic savings in hand sink aerator replacement, in which we have found existing flow rates as high as 5 gpm (no aerator installed), with an average of 1.9 gpm across all sites. Multiplied by the high number of customer users in restaurants, upgrading these hand sink aerators to 0.5 gpm aerators is resulting in significant and cost effective savings on the order of 19,199 gallons per year for each aerator replaced in our **WaterLink - Santa Clara Valley** program.



*Replacing an average of one pre-rinse spray valve and three faucet aerators per restaurant saves 95,000 gallons of water per year on average for our Santa Clara County WaterLink commercial customers.*

<sup>2</sup> Water Research Foundation, Residential End Uses of Water Version 2, April 2016

### *Why Commercial Dishwashers*

Commercial dishwashers can consume up to two-thirds of the total water used in a commercial kitchen. The leasing of dishwashers is common, with as many as 60% of businesses and up to 70-80% in cash-strapped small businesses (such as what we might expect to find in DAC areas) opting for leasing as opposed to purchasing.<sup>3</sup> Because they maintain the equipment while at the customer site, leasing companies commonly recondition older equipment for reuse. We also recognize that the majority of small and mid-sized food service business owners are likely to lease older equipment and that leasing companies will continue to maintain older, non-Energy Star equipment.

With regard to purchased equipment, according to the U.S. Department of Energy, Energy Star-certified commercial dishwashers comprised more than 64% of dishwasher shipments in 2014 nationwide, a figure which may be skewed because the Energy Star Partners that were surveyed make up only 50% of the total market share of manufacturers in the commercial dishwashing market<sup>4</sup>. Considering either figure, this data shows that at least half of the units being sold today are less efficient conventional models, which lower income businesses are more likely to select. Further, low-margin business owners will not replace a piece of high-cost, low-performing equipment until that equipment is completely non-functional.

For these reasons, we have chosen to leverage our PRSV installation site visit to also offer a rebate incentive that would encourage ‘early retirement’ for older equipment and ‘replace on burnout’ equipment that has failed in order to hasten the transition to more water and energy-efficient equipment in DAC communities. We will accomplish this by offering commercial customers a rebate that makes the cost of upgrading to a Tier 2<sup>5</sup> Energy Star-certified dishwasher or dishwasher leasing service completely free or equal to the cost of replacing the conventional equipment with similar, lower performing models.

## **Work Plan**

The following detailed work plan is contract ready. It provides confirmation that project goals and delivery have been well thought out and calibrated. Combined with our proven success delivering **WaterLink-Santa Clara County**, this work plan should engender confidence that the requested funding can support successful achievement of grant targets. Please see **Attachment 5** for the detailed implementation schedule that aligns directly with the following work plan.

### **Task 1: Direct Project Administration and Reporting**

- 1.1 Communicate with grant manager to ensure compliance with grant requirements.
- 1.2 Prepare quarterly progress reports to document achievement of grant deliverables and program successes and challenges.
- 1.3 Process contractor invoices and prepare quarterly invoices and supporting documentation.
- 1.4 Propose and implement budget and contract revisions if needed.
- 1.5 Prepare draft and final progress report.

#### **Task 1 Deliverables**

- Preparation of invoices, submission of quarterly and final progress reports, and other deliverables as required by the grant manager.

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<sup>3</sup> U.S. Department of Energy, Energy Savings Potential and RD&D Opportunities for Commercial Building Appliances. June 2006

<sup>4</sup> PG&E Work Paper PGECOFSTNEW: Energy Efficient Door-Type Commercial Dishwasher, 2/10/2015

<sup>5</sup> Energy Star ‘Tier 2’ equipment uses 15% less water per rack than an Energy Star 2.0 qualified dishwasher

## Task 2: Environmental Documentation

- 2.1 Prepare a programmatic CEQA notice of exemption (NOE) for all **WaterLink** projects that involve minor alterations to existing structures (categorical exemption section 15301: Class 1). Submit CEQA NOE to Monterey and Santa Cruz Counties and the State Office of Planning and Research.

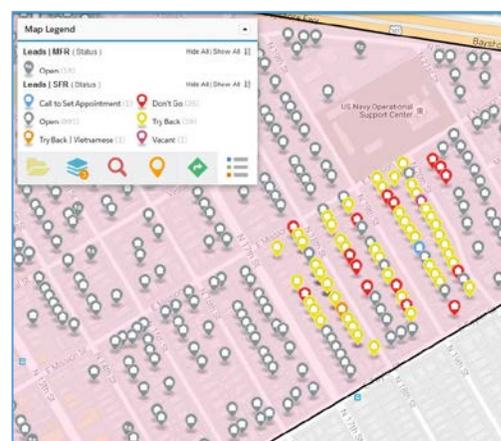
### Task 2 Deliverables

- CEQA Notice of Exemption filed with Santa Cruz County, Monterey County, and the State of California, and other deliverables as required by the grant manager.

## Task 3 Project Planning and Design

### Program Design and Launch

- 3.1 Update **WaterLink's** Salesforce GeoPointe plug-in software to include assignment areas for Monterey Bay DAC census tracts, zip codes, and legislative districts. Purchase APN data by zip code for neighborhood-based installation tracking and upload into Salesforce database.
- 3.2 Develop and execute Memorandums of Understanding (MOUs) with water utilities to confirm and arrange for their contributions of equipment, rebates, and marketing assistance for program delivery.
- 3.3 Develop and execute contracts with contractors for team training, emergency faucet repair, leak repair, clothes washer installation, and commercial dishwasher installation and/or leasing. Priority will be given to contractors whose businesses are located in the DAC area<sup>6</sup>.



*GeoPointe mapping software and a prepopulated Salesforce database directs our door-to-door strategy and captures baseline flow rates and installation data for every site.*

### Marketing

- 3.4 Update and adapt existing **WaterLink** marketing collateral for the Monterey Bay area in English and Spanish.
- 3.5 Create new **WaterLink** marketing collateral for direct installation program enhancement, leak repair and commercial dishwasher rebate programs in English and Spanish.

### Task 3 Deliverables:

- Executed contracts and MOUs with water agency partners and contractors.
- Updated bilingual residential and commercial direct installation program participation/site access agreements.
- Updated bilingual PRSV direct installation program recruitment flyer.
- Updated bilingual leave-behind postcards and door hangers for residential door-to-door canvassing.

<sup>6</sup> Note: Projects are not subject to prevailing wage requirements and Department of Industrial Relations contractor registration because no alterations will be made to the building supply plumbing by contractors during the course of implementation, and appliances to be rebated with grant dollars are free-standing.

- Updated bilingual multi-family property management recruitment flyer.
- Bilingual leak repair coupon voucher for single-family homes.
- Energy Star commercial dishwasher rebate flyer and rebate program participation agreement.
- **WaterLink** customer testimonials videos and/or case studies capturing water and energy utility bill savings.



WaterLink "sorry we missed you" leave behind postcard



WaterLink information sheet with Spanish or Vietnamese translation on back

Professional WaterLink enrollment materials, available in three languages and co-branded with local water agencies and California Climate Investment logos foster trust and increase program participation.

### Task 4: Implement Project 1 - Facility Type: Single- and Multi-Family Residential Indoor Water and Energy Conservation Retrofits and Egregious Leak Repair Targets

- Provide direct installation of 1.5 gpm shower, 1.5 gpm kitchen and 0.5 or 1.0 gpm lavatory faucet aerators at a total of 5,200 single-family homes and multi-family units in disadvantaged community census tracts and surrounding zip codes.
- Install 100 Energy Star residential clothes washers in single-family homes and 100 Energy Star residential clothes washers in multi-family community laundry facilities.
- Install 25 Energy Star residential dishwashers in single family homes.
- Repair egregious faucet aerator leaks in 150 residences.



#### 4.1 Promote the WaterLink program in target DAC neighborhoods.

- Identify the location and contact information for large multi-family apartment communities and mobile home communities to recruit property managers and HOA boards to participate in the **WaterLink** direct installation program.
- Obtain signed direct installation program agreements with multi-family property managers. Using **WaterLink** marketing collateral, collaborate with property managers to notify residents about the upcoming visit from the outreach team.
- Promote upcoming **WaterLink** direct installation opportunities with postcards and door hangers in single-family neighborhoods.
- Form relationships with local community groups, municipalities, schools, and neighborhood leaders to build credibility and raise awareness about the **WaterLink** program's presence and mission in the community.
- Incentivize neighborhood leaders to volunteer their time to promote and coordinate direct installation visits in their neighborhoods by offering a free Energy Star clothes washer or dishwasher when they obtain signed program participation agreements from at least 10 neighbors.<sup>7</sup>

#### 4.2 Conduct residential door-to-door direct installation campaigns in nine Monterey Bay DAC census tracts with CalEnviroScreen 2.0 scores of 75% or higher.

During direct installation visits, our bilingual outreach team will:

- Utilize the GeoPointe mapping system to identify target homes to visit that have not yet been served in the program.
- Obtain permission to enter premises and install equipment via signature on Site Access Agreement.
- Use flow rate bags to document the pre-installation flow rates of existing fixtures.
- Install new low-flow showerheads and faucet aerators for all qualifying fixtures. Remove old equipment.
- Record flow rates and equipment installed at each location into Salesforce database tracking system using cell/data-enabled phones or tablets.
- Check for and document leaking faucets and running toilets. Where egregious leaks are detected that meet the qualifying flow rate of 1 or more drips per second, provide a leak repair voucher that can be redeemed through a pre-qualified plumbing contractor.



*WaterLink field team member Alec Kwo gains permission from an east San Jose resident to assess his home for free water-energy upgrade opportunities.*

<sup>7</sup> Note: A neighborhood leader volunteer must have a non-Energy Star clothes washer or dishwasher to participate in the neighborhood leader incentive program.

- Document model of current clothes washer to determine eligibility for the free High Efficiency Clothes Washer upgrade direct installation program.
- Provide customer with information via handouts and follow up emails about other water and energy utility conservation and rebate programs available in to them in their area.

#### 4.3 Implement Energy Star Clothes Washer Upgrades

Single-family households will be incentivized to participate in the **WaterLink** direct installation program by being offered the opportunity to be placed in a raffle to win a free Energy Star high efficiency clothes washer. To be eligible for the raffle, residents must currently use a non-Energy Star, top loading clothes washer and meet the eligibility requirements for the residential clothes washer rebate program of their local water utility. Multi-family communities may receive up to five high-efficiency commercial clothes washers when 80% of the units participate in faucet aerator direct installation.

- Obtain project agreements with property owners and schedule installation dates with selected contractors/vendors.
- Where applicable, invoice local water utilities for clothes washer rebates.

#### 4.4 Implement Leak Repair Program

In single-family residences where a faucet leak is detected at more than 1 drip per second:

- The resident will be provided with a voucher for leak repair to be redeemed with a pre-qualified local plumbing contractor.
- The voucher will be valid for 2 months and will be honored on a first come first served basis.
- The plumbing contractor will invoice Ecology Action directly for the leak repair work at a set price per leak equal to the voucher amount.
- Residents will be responsible for paying any costs that exceed the amount printed on the leak repair voucher.



*Our field team has documented leaks that waste as much as 325 gallons/day in one home - that's over 118,000 gallons if left unchecked for a year!*

#### Task 4: Project 1 Deliverables:

- The number of multi-family facilities that have signed project agreements and received direct installation services per DAC census tract, zip code and legislative district, including the facility name, location, number of units and the number of showerheads, aerators, and high-efficiency clothes washers installed.
- The number of single-family residences that have signed project agreements and participated in the direct installation program per DAC census tract, zip code and legislative district, including the number of showerheads, aerators, high efficiency clothes washers installed, and the number of egregious leaks repaired.

## Task 5: Implement Project 2 - Facility Type: Small to Medium Commercial Kitchens

### Pre-Rinse Spray Valve, Faucet Aerator Replacement, and Commercial Dishwasher Upgrade Incentive Program Targets:

- Provide water-energy direct installation services and rebate incentives to 544 commercial and institutional kitchens located in and/or serving DAC communities.
- Replace 544 pre-rinse spray valves with flow rates greater than 1.6 gpm with state-of-the-art low-water use pre-rinse spray valves (0.65-1.07 gpm)
- Replace 1,632 lavatory faucet aerators with flow rates greater than 1 gpm with 0.5 gpm faucet aerators.
- Provide DAC restaurant owners with rebate incentives that will result in the replacement of 55 non-Energy Star commercial dishwashers with Energy Star-certified best available (Tier 2) dishwashers.

#### 5.1 Promote the WaterLink program to businesses

- Leverage Ecology Action's decades-long relationships with Monterey Bay area water agencies, local chambers of commerce, municipalities, nonprofit organizations, and elected officials to market and recruit business participants to the **WaterLink** program.
- Promote the free direct installation program and rebate offering via email to the hundreds of our previous small to medium business customers who have participated in our Energy Watch or Monterey Bay Certified Green Business programs.
- Identify restaurant and grocery store chains with locations in and near DAC areas and obtain corporate management contact information.
- Identify skilled nursing facilities and public and private schools, including Hartnell College and CSU Monterey Bay, and obtain management contact information.
- Contact businesses owners and facility managers to set direct installation appointments in advance via email and phone.
- Utilize GeoPointe mapping software to identify unserved businesses to visit during non-rush hours to explain the **WaterLink** program to business personnel in person using **WaterLink** business customer testimonials and other PRSV **WaterLink** marketing collateral.

#### 5.2 Conduct commercial door-to-door direct installation campaigns, prioritizing nine Monterey Bay DAC census tracts with a CalEnviroScreen 2.0 scores of 75% or higher. During direct installation visits, our bilingual outreach team will:

- Obtain permission to enter the premises and install equipment via signature on Site Access Agreement.
- Use flow rate bags to document the pre-installation flow rates of fixtures.
- Install new pre-rinse spray valves and faucet aerators for all qualifying fixtures. Remove old equipment. Inventory and store removed PRSVs for 30 days to ensure customer satisfaction. After 30 days, recycle old valves.
- Document the flow rates and equipment installed at each location in the Salesforce database tracking system using cell/data enabled tablets.

- Train dishwashing staff on the proper use of the new equipment. At each location leave behind a sticker for the wall above the sink that demonstrates the proper use of the new technology 3-stream model (which is less familiar to restaurant personnel).
- Check for and document leaking faucets and running toilets; refer owners and/or managers to pre-qualified plumbing contractors for leak repairs (Note: leak repair voucher will not be offered to commercial business owners).
- Where a food service facility is using a high- or low-temperature, non-Energy Star commercial dishwasher, document make and model of existing commercial dishwasher in Salesforce, provide facility manager with commercial dishwasher rebate information and refer to Installation Manager for rebate coordination (see Task 5.3 below).
- Provide customer with information about other water utility and PG&E conservation programs, including toilet and landscape water conservation rebate programs.



*Our field team has documented unexpectedly high flow rates in restaurant restroom hand sinks, resulting in savings of over 19,000 gallons/year from a single aerator upgrade.*

### 5.3 Implement Energy Star Tier 2 Commercial Dishwasher Upgrade Program

- Have Installation Manager secure rebate program agreements from **WaterLink** commercial direct installation program participants defining the roles and responsibilities of the business owners and Ecology Action.
- Document average customers-per-day and baseline gallons used per dishwasher rack in Salesforce database once rebate program participation agreement has been signed.
- Promote availability of rebate to business owner using marketing collateral that identifies the participating pre-qualified restaurant equipment wholesalers or equipment leasing companies that offer low temperature, Energy Star certified commercial under-counter or stationary single tank door dishwashers. Because more water is used in the equipment when more detergent is added, leasing companies with business models that charge per volume of detergent are not incentivized to conserve water for their clients and will therefore not be selected as qualified vendors. The business owner will then manage the purchase and installation of the equipment with the vendor.
- Verify with in-person site visit that new equipment has been installed and is operating according to manufacturer's specifications prior to reimbursing the equipment leasing company, the equipment vendor, or the restaurant owner.

#### Task 5: Project 2 Deliverables:

- Number and location of businesses receiving direct installation services, including the number and manufacturer flow rates of pre-rinse spray valves and faucet aerators installed.
- Number and location of businesses that signed project agreements and upgraded commercial dishwashing equipment, including the make and model of old equipment and new Energy Star equipment.

## Task 6: Project Monitoring and Evaluation

### Monitoring Plan Goals:

#### Shower, Faucet Aerator, and PRSV installation and Leak Detection:

Compare measured actual baseline flow rates of existing aerators to manufacturer's flow rate of low-flow replacement aerator or improved condition (zero leaks) to determine the water and energy savings at each direct installation location.

#### Clothes Washer and Commercial Dishwasher Upgrades:

At each installation location, determine the water and energy savings by comparing baseline hot water usage and improved water usage with Energy Star equipment.



*Team member Ahn Nguyen measures baseline flow rates to qualify the home for an upgrade and calculate actual savings data.*

- 6.1 Develop a monitoring plan documenting the methodology for determining baseline and improved hot water and energy use for all measures (see **Attachment 6, Proposal Monitoring Plan** for details).
- 6.2 Update **WaterLink** Salesforce software to conform to the DWR-approved project-monitoring plan format and Air Resources Board Calculator metrics.
- 6.3 Set up Tableau report generation software to generate Salesforce reports on water savings, energy savings, GHG emission reductions, and utility financial savings benefits to DACs based on zip code, census tract, Assembly district, and Senate district.
- 6.4 Generate quarterly reports comparing pre-installation and installed equipment flow rates and end usage data to generate calculated water savings and energy savings and associated GHG reductions.

### Task 6 Deliverables

- **WaterLink - Monterey Bay Area** Monitoring Plan
- Project evaluation data summaries documenting water savings, energy savings, and GHG emission reductions submitted with quarterly progress reports and final report.
- Discussion of final project outcomes, successes and barriers in final project report.

## Project Team Structure

This project is contract ready. The program builds on the **WaterLink - Santa Clara County** funded by the 2014 DWR Water-Energy Grant and serving customers today. The work plan outlined above has been confirmed and vetted by our Monterey Bay Area program partners. The project team organizational chart further supports our contract readiness and preparedness to deliver the **WaterLink - Monterey Bay Area** program should we score highly enough to secure DWR’s funding partnership in the program.

To successfully engage Monterey Bay Area DAC residents and businesses to participate in the WaterLink program, a multilingual Spanish/English outreach team will be recruited. Every effort will be made to hire team members who live within or near the DAC service areas, with a goal of 50% DAC delivery team members. In our current **WaterLink - Santa Clara Valley** project we were able to recruit 42% of our residential field team and 36% of our overall delivery team from DAC neighborhoods.

