

Farmersville DAC Water Energy Initiative

ATTACHMENT 3

WORK PLAN



Description of the Project: The City of Farmersville is launching a robust initiative to dramatically reduce its city-wide water and energy use by implementing two proposed projects. As required, a separate Scope of Work for each of the three projects is provided within this Work Plan. These include:

Project 1: Install 1,020 advanced water meters (Automatic Meter Reading or AMR meters) and convert all 2,556 water connections from a flat rate billing system to an advanced metered and tiered billing system. City currently provides unlimited, flat-rate water to its customers for \$14 per month. The City has previously purchased and installed 1,536 advanced water meters; however, none are “on-line” and the City is still utilizing a flat rate billing for all customers until the remainder can be installed. Based upon empirical evidence, converting to a volumetric system is estimated to produce a significant water savings of 20% or more. Evidence indicates that when customers realize their actual water use through metered, tiered-rate billing there is a financial incentive to modify behavior and use less water. This project will also include “**Water wise**” outreach and incentives. The City recognizes that the new metered water system has the potential to double or triple residents’ water bills. The City wants to ease this burden through water conservation education and providing practical tools and incentives to help residents use less water. The City will develop and distribute Water Wise bi-lingual literature to all of its customers and provide 1,000 showerhead and sink faucet replacement kits which restrict water flow. The City will also offer 200, \$100 rebates/billing credits to customers who purchase specified low-flush toilets (1.25 gallons per flush).

Project 2: Replace 20,000 square feet of turf with artificial turf at two municipal properties, Farmersville City Hall and the Farmersville Community Center. The City will “lead by example” by replacing water-intensive landscaping with a no-water, low-maintenance alternative.

Project Partners: In accordance with all grant guidelines, the City of Farmersville will be the Project Representative with oversight of all project deliverables and grant management. Due to its limited staff, the City will utilize the services of its contract engineering firm Quad Knopf, Inc. and Quad Knopf’s Public Works Manager will serve as Project Manager to coordinate and execute the tasks outlined in each of the three projects. The City will utilize the services of a qualified grant management firm as Grant Manager to assist in filing timely progress reports and reimbursement requests.

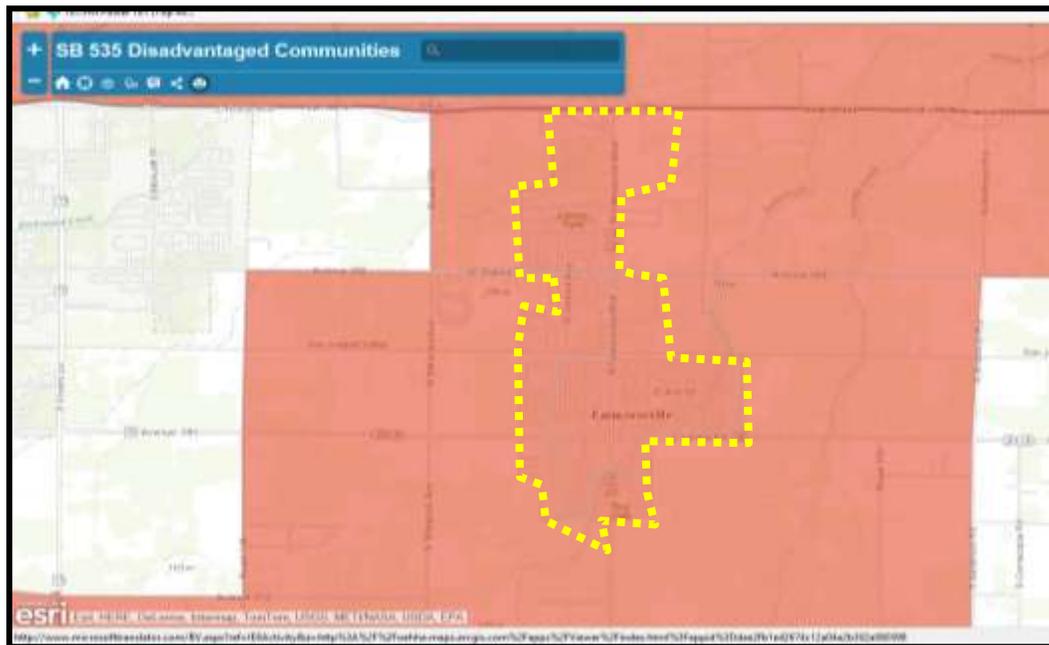
Background: The City of Farmersville (population 10,720) is a severely disadvantaged community, with 34% of residents living below the poverty threshold. The median household income in Farmersville is \$33,225, well below the statewide average of \$61,400. The vast majority (90%) of the student population qualifies for the federal Free or Reduced Price Meal Program. CalEnviroScreen 2.0 identifies all of Farmersville in the top 25% of communities with low income and significant environmental challenges. The majority of Farmersville’s City limits

Farmersville DAC Water Energy Initiative ATTACHMENT 3 WORK PLAN



is in *the top 5%* of CalEnviroScreen 2.0 communities. The City’s Public Works Department provides water delivery and sanitary service to 2,556 connections. The City, however, is not considered an Urban Water Supplier because it has fewer than 3,000 connections and provides less than 3,000 acre feet per year of water to its customers. Because Farmersville is not an Urban Water Supplier it is not required to meet the statutory requirement to convert non-metered systems to a volumetric, metered water system. However, the City recognizes the tremendous water savings to be achieved via converting to a metered system. The City has already taken the initiative to purchase and install 1,536 meters. Funding is the only obstacle preventing the City from completing the installations and converting the system. The City is also seeking to “lead by example” by removing water intensive landscaping (turf) and replacing it with artificial grass. The project will also provide Farmersville residents with water saving tools (shower flow restrictors) and rebates for installing low-flush toilets.

Exhibit 1: City of Farmersville DAC Map

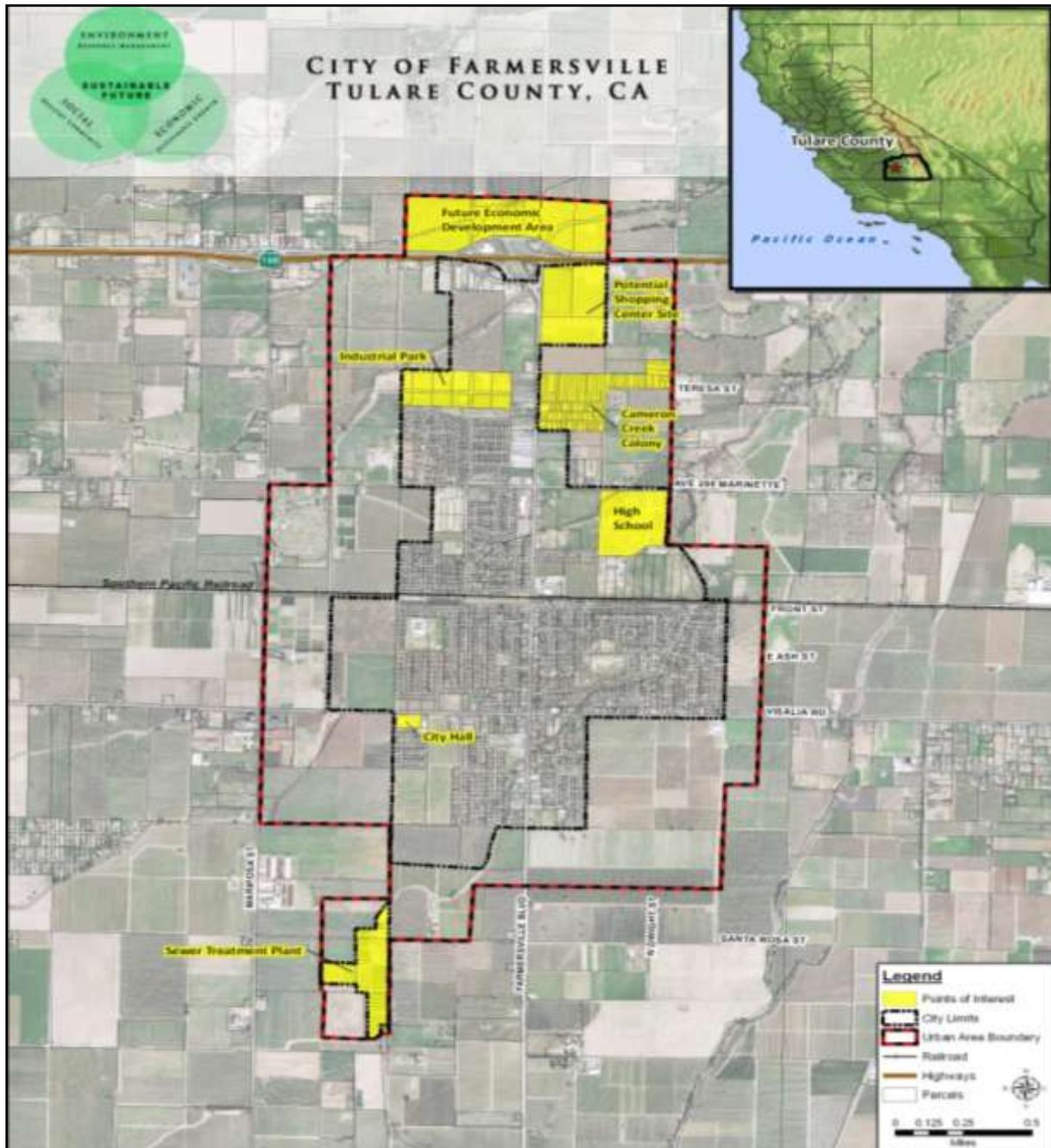


The City of Farmersville is identified in its entirety as a Disadvantaged Community, in the top 25% of CalEnviroScreen 2.0. The main census tract in Farmersville, which comprises the majority of the population in the south half of the City is in the top 5% of CalEnviroScreen 2.0.

Farmersville DAC Water Energy Initiative ATTACHMENT 3 WORK PLAN



Exhibit 2: City of Farmersville System Map



The City of Farmersville delivers water to 2,556 connections within the city limits. Future development will include a retail shopping center and industrial park at the north end of the Urban Area Boundary. Farmersville will construct new water mains to bring high-quality, reliable drinking water to a neighboring unincorporated community, Cameron Creek Colony in 2015. Private wells in Cameron Creek have gone dry during the recent drought.

Farmersville DAC Water Energy Initiative

ATTACHMENT 3

WORK PLAN



System Information: Water production for Farmersville’s distribution systems is generated from groundwater wells. The water system consists of eight wells, hydropneumatic pressure tanks, approximately 144,000 lineal feet of pipe, and various valves and hydrants. The water distribution system is interconnected between fire and domestic services through a network of pipes that are directly fed by water wells located in different parts of the City. The average daily demand of the water system was recorded at 1,000 gpm, and currently the system meets an average daily demand of 1,500 gpm. The City delivered 2,195 acre feet of water to its connections in 2013. System maps are included as a separate attachment to the work plan.

Exhibit 3: Metering Installation Progress Map



The yellow highlighted areas identify 1,536 connections where the City of Farmersville has already installed AMRs (60% of the system). None of the installed meters are “on-line” and the system has not been converted from a flat-rate billing to a volumetric, metered billing system due to a lack of funding. The proposed grant funding will provide for the remaining 1,020 meters and the technology to bring the entire metered system on-line citywide.

Farmersville DAC Water Energy Initiative

ATTACHMENT 3

WORK PLAN



WORK PLAN TASKS

TASK 1. PROJECT ADMINISTRATION

This task includes all actions necessary to manage the project to adhere to the budget and schedule and manage all grant proceeds in compliance with DWR and City regulations and policies. The schedule includes an estimated start date, via an executed grant agreement with the State by June 1, 2015. Proposed sub-tasks include:

Sub-task 1.1—Grant Kick-Off Meeting and Execution of Grant Agreement

The City and the Project Manager will meet with DWR staff (via conference call) to review the grant agreement, discuss expectations and timelines, review procedures for consultant procurement, invoicing and reporting, auditing checklist (Appendix D from Guidelines), and next steps. The City will document the meeting with minutes and a list of action items. The City will process the grant agreement through the City Attorney's office and City Council and provide a fully executed copy of the grant agreement to the DWR.

Deliverables: -Meeting agenda and minutes
-Fully executed Grant Agreement

Sub-task 1.2—Project Management

The City will utilize the services of its contract Public Works Manager from Quad Knopf, Inc. for Project Management. The City Manager will meet weekly with the Project Manager, selected consultant(s), and internal support staff to monitor project progress, prepare for upcoming tasks, debrief on completed tasks, conduct problem-solving, and ensure the project remains on schedule and within budget. DWR staff will be invited to these monthly progress meetings, if desired. The Project Manager will develop a schedule of monthly check-in/progress meetings and arrange for a conference call line for all parties to participate. The project schedule will be used as the standing agenda item for all calls.

Deliverables: -Schedule of monthly check-in or progress calls

Sub-task 1.3—Grant Management

The City will follow its standard operating procedure outlined in its Grant Management Procedure Manual. The City Finance Director and Project Manager will work with the City's existing grant management firm to coordinate/complete all financial and progress reporting, as required by DWR. This will include preparing and submitting all reimbursement requests and grant completion forms. The City will seek reimbursement from DWR on a quarterly basis. The Grant Manager will be responsible for completing and submitting required quarterly progress reports, program completion reports, water management status reports, and post-performance reports and forms (as required). Records retention will be three (3) years after final payment is made by DWR, or longer if required by DWR.

Farmersville DAC Water Energy Initiative

ATTACHMENT 3

WORK PLAN



Deliverables:

- Quarterly progress reports forms and documents
- Project completion report forms and documents (within 90 calendar days of project completion)
- Grant completion report forms and documents (within 90 calendar days of submitting the Project Completion Report)
- Post-performance reports and forms (reporting will depend on type of project as defined by DWR staff)

TASK 2. AMR INSTALLATIONS AND METERED SYSTEM CONVERSION

The Project 1 Scope of Work includes all tasks necessary to install meters on the unmetered connections and convert Farmersville’s water delivery system from monthly flat rate to a volumetric, metered billing.

Sub-task 2.1—Final design, plans and specifications. The Project Manager and his staff will prepare final designs, installations plans, and equipment procurement specifications.

Deliverables: Final design, plans and specifications

Sub-task 2.2 Issue RFP, Procure Contractor, Kick-off Meeting

The Project Manager will prepare and issue a Request for Proposals (RFP) on the City’s behalf. The Project Manager and City Selection Committee (City Manager, Finance Director, Public Works Director and City Council Members) will select a contractor to install the AMRs and the metering infrastructure at the City’s Public Works headquarters to bring the metered system on-line. City-approved procurement procedures will be followed and the City Council will approve the selection of the contractor. City staff, the Project Manager and the selected contractor will meet to review the project’s goals, objectives, tasks, and timeline; the City’s expectations; and DWR grant requirements. The Project Kick-off Meeting will outline the plan for completing all tasks. The Project Kick-off Meeting will be led by the Project Manager and all key staff (City and Contractor) will be required to attend.

Deliverables:

- Request for Qualifications document developed and posted/advertised
- List of proposals received, reviewed, and ranked (interviews may be scheduled for highest ranking proposals)
- Executed agreement with successful contractor
- Agenda and meeting minutes from kick-off meeting
- Detailed task list for successful installation and metered system conversion

Sub-task 2.3—California Environmental Quality Act (CEQA)

The Project Manager will prepare a CEQA Notice of Exemption and will file the notice with the Tulare County Clerk and State Clearinghouse.

Farmersville DAC Water Energy Initiative

ATTACHMENT 3

WORK PLAN



Deliverables: - Notice of Exemption

Sub-task 2.4—Permitting

Project Manager will obtain an encroachment permit for work to be performed in the public rights-of-way which includes the installation of water meters. The permit will be issued to selected contractor when construction commences. The City has determined that an encroachment permit is the only required permit necessary for the project.

Deliverables: - Signed permit

Sub-task 2.5—Installations

The selected contractor will develop a detailed installation plan and schedule. The contractor will begin the installations of 1,020 AMRs.

Deliverables: -Detailed installation plan and schedule
-Contractor invoices including AMR equipment and installations
-Map and address list of completed installations

Sub-task 2.6—System Conversion, Testing and Training

The selected contractor will install all necessary radio-reading equipment and monitoring equipment at Farmersville’s Public Works headquarters. The contractor will test the system including the new installations and those previously installed by the City. The contractor will conduct a two-day training for staff for the radio-read software. The contractor will be responsible for the successful system conversion.

Deliverables: -Contractor invoices including radio-read equipment, software and accessories

Sub-task 2.7—Installation Administration

The Project Manager and City Public Works Director will oversee all installations, radio-reading equipment and monitoring equipment.

Deliverables: -New metered billing samples

Sub-task 2.8—Outreach Planning and Materials Development

The City recognizes the potential financial burden to residents when the City converts from a flat rate unlimited water billing system to a tiered-rate, volumetric metered system. The City desires to provide its residents with fair notice of the change and also provide its residents with tools for conserving water use and keeping water bills as low as possible. The Project Manager and his staff will meet with City staff to confirm the schedule for implementing the outreach and incentive rollout. The Project Manager and his staff will prepare bi-lingual outreach

Farmersville DAC Water Energy Initiative

ATTACHMENT 3

WORK PLAN



materials to mail to each customer with their monthly water bill. The information will include notices of the pending conversion to the metered system and tips for reducing household water use. The Project Manager/City will circulate the draft materials to DWR staff for review, if desired.

In addition, the outreach will include information about the shower flow restrictors which will be provided at no charge to residents at City Hall for pick-up. A large percentage of Farmersville residents 75% pay their water/sewer bills in person at City Hall.

The Project Manager and his staff will develop/provide a list of eligible low-flow toilet replacements. The Project Manager and his staff will consult with neighboring cities who have successfully implemented a rebate program. The Project Manager and his staff will contact local home improvement retailers (Lowe's, Home Depot) and notify them of the Farmersville rebate and assess eligible inventory. The Project Manager and his staff will prepare the rebate forms/instructions for low-flush toilet replacements to be included in monthly bills. (\$100 credit for eligible toilets).

Deliverables: -Outreach planning meeting minutes and implementation schedule
-Draft bi-lingual outreach materials
-Final color, bi-lingual, printed outreach materials
-List of low-flush toilets eligible for rebates
-Rebate forms and requirements for rebates/credit

CEQA and Permitting tasks are not applicable to this Project.

Sub-task 2.9—Shower/Sink Flow Restrictor Kit Procurement

The Project Manager and his staff will obtain three vendor quotes for provision of 1,000 showerhead/sink flow restrictor kits. The kits will include one shower, one kitchen sink, and one bathroom sink flow restrictor. All of the flow restrictors in the kit will be easy to install with existing plumbing. The Project Manager will purchase 1,000 shower/sink flow restrictor kits.

Deliverables: - Shower/sink kit invoice

Sub-task 2.10—Staff Training for rebate validation

Project Manager and his staff will provide City staff with instructions for validating low-flush toilets rebate materials (receipts for listed toilets during a designated period). Residents who provide properly completed rebate forms and those validated with appropriate receipts will receive a one-time, \$100 per toilet credit on their utility bill. The City will provide DWR staff with records of the credits that have been fulfilled to customers who provided the required documentation. The City will seek reimbursement from the grant for the 200 credits. The City

Farmersville DAC Water Energy Initiative

ATTACHMENT 3

WORK PLAN



will evaluate extending the rebate/credit program at the end of the grant term based upon the perceived demand and success of the program to date.

Deliverables: -Rebate instructions

Sub-task 2.11—Rebate Rollout and Shower flow restrictor distribution

The City of Farmersville will mail out rebate information in monthly bills, and begin distribution of shower/sink kits, and fulfillment of the first 200 eligible toilet rebates/credits on bills for a period of one year between October 1, 2015 and September 30, 2016.

Deliverables: -List of rebates/credits issued/documentation

TASK 3. TURF REMOVAL AND REPLACEMENT

The Project 2 Scope of Work includes all tasks necessary to remove 20,000 square feet of turf at City Hall and the Farmersville Community center and replace the water-intensive landscaping with artificial turf.

Exhibit 4: Farmersville City Hall



The project will remove turf at City Hall, 909 W. Visalia Road (above) and at the Farmersville Community Center, 623 N. Avery Avenue (following page). Bi-lingual signage will be installed to explain the water savings achieved with the change.

Farmersville DAC Water Energy Initiative

ATTACHMENT 3

WORK PLAN



Exhibit 5: Farmersville Community Center



Sub-task 3.1—Final design, plans and specifications. The Project Manager and his staff will prepare final designs, site plans, and specifications for the turf removal projects.

Deliverables: -Final designs, site plans, and specifications

Sub-task 3.2—Issue RFP, Procure Contractor, Kick-off Meeting

The Project Manager will develop and issue a Request for Proposals (RFP) on the City's behalf. The Project Manager and City Selection Committee will select a contractor to remove the turf at Farmersville City Hall and the Farmersville Community Center. The contractor will remove the turf and sprinkler heads related to the turf-irrigation system and install artificial grass.

Deliverables: -Request for Qualifications document developed and posted/advertised
-List of proposals received, reviewed, and ranked (interviews may be scheduled for highest ranking proposals)
-Executed agreement with successful contractor
-Agenda and meeting minutes from kick-off meeting
-Detailed task list for successful removal of turf and artificial grass replacement.

Sub-task 3.3—California Environmental Quality Act (CEQA)

The Project Manager will prepare a CEQA Notice of Exemption and will file the notice with the Tulare County Clerk and State Clearinghouse.

Deliverables: -Notice of Exemption

Sub-task 3.4—Signage, develop content, procure and install four signs

The Project Manager and his staff will develop content and procure two signs each for City Hall and the Farmersville Community Center. The bi-lingual signage will highlight the water savings achieved by removing water intensive landscaping, (grass) with artificial turf.

Farmersville DAC Water Energy Initiative

ATTACHMENT 3

WORK PLAN



Deliverables: - photos of 4 installed signs

Sub-task 3.5—Turf Removal and Replacement

The selected contractor will develop a detailed installation plan and schedule. The contractor will remove the existing natural turf, complete irrigation system modifications, and install 20,000 square feet artificial turf.

Deliverables: -Detailed installation plan and schedule
-Before and after photos of both sites, completed installations

TASK 4. MONITORING AND PROJECT PERFORMANCE

This task provides for developing a monitoring plan and performance comparisons pre- and post-implementation. The monitoring plan will meet the requirements as established by the DWR during the grant agreement development process. At this time, the City believes the monitoring plan will be structured to compare water use **one year after** the following project completion milestones:

- Conversion to a metered-based billing system
- Turf removal replacement
- Provision of 1,000 shower/sink faucet kits and 200 toilet replacement rebates/credits

The proposed project is not expected to affect surface water quality and therefore there is no provision for including a monitoring component that allows integration of data into the California Environmental Data Exchange Network.

Sub-task 4.1 Project Monitoring Plan (PMP)

The monitoring plan consists of conducting a pre-implementation analysis of water use system-wide. The City does not have volumetric data for each connection due to the flat-fee service that is currently provided. Energy use associated with the water use (pumping and transmission) will be based upon the system energy intensive rate (how much electricity is required to pump and deliver one million gallons). For the turf replacement monitoring, the City will utilize pre-implementation irrigation estimates and post-implementation reductions. Pre-implementation watering is estimated based upon typical turf water requirements in the San Joaquin Valley, half an inch of water, two times per week for nine months per year. Energy reductions will include the system energy intensive rate and also reductions in vehicle miles traveled and elimination of weekly mowing at both sites.

Deliverables: -Project Monitoring Plan including the following:
-Baseline (pre-project) water use and energy use
-Proposed savings
-Brief discussion of how water and energy savings will be monitored

Farmersville DAC Water Energy Initiative ATTACHMENT 3 WORK PLAN



- Methodology of monitoring
- Frequency of monitoring
- Performance targets

Sub-task 4.2 Project Performance. The pre-implementation baseline calculations will be compared to the one-year post implementation calculations. A final Project Performance Report will be developed within one year of the City completing each project.