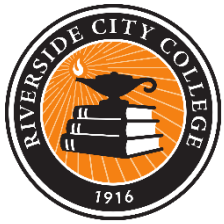
Water Resources and Policy Initiatives

Final Report



WECAN and BAM Turf Replacement Projects

Stephanie Fowler

Riverside City College

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Supervisors and leads at Jurupa Community Services District:

Alison Loukeh

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Acknowledgements

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I would also like to acknowledge the Jurupa Community Services District team members Clover Rogers, Edgar Chavez and Aaron Ramirez that guided me in my work and helped to finish these projects.

Executive Summary

During the duration of my internship I assisted in various projects that were assigned from JCSD's Water Conservation team. During the first part of my internship I worked on the Water-Energy Community Action Network (WE CAN) program that JCSD was finishing up with Santa Ana Watershed Project Authority (SAWPA). The purpose of the WECAN program was to support low-income community members in conserving water and reduce greenhouse gases through a turf replacement program. The program provided turf replacement with drought tolerant landscaping to participants that lived within a disadvantaged community within the district of JCSD. My role in this, at the end of the project, was to create and conduct a customer satisfaction survey to all participants to obtain customer feedback, identify and address maintenance issues, and gather insights for program improvements. In the latter part of my internship I have worked on the BAM landscape project, a project that JCSD partnered with BAM waterwise landscapers started to create templates and guides for JCSD's residents to utilize in Do-It-Yourself turf removal and drought tolerant landscaping projects.

Project Objectives

WECAN Project

The WECAN project was made possible by the Water Energy Grant from AB32. The goals of this project were to reduce greenhouse gases through the conservation of water and energy while supporting overburdened communities. The main effort that

JCSD made as part of this program was providing the outdoor turf replacement to it's qualifying residents in disadvantaged communities as designated by the state of California. These participants went through a process where a contractor provided by the program removed about 1,000 sq.ft. of living turf from their front yards and replaced the turf with drought tolerant landscaping that included drip irrigation and mulch. These were turnkey projects within the community to initiate and motivate residents to reduce water use in their yards as compared to a traditional turf yard. As I came into the project, the majority of the projects were already completed. JCSD and SAWPA were interested in seeing the progression of the landscape appearance at intervals of 6 months and 1 year, customer satisfaction with their new landscapes and any observed water reduction in their new landscape. I was tasked with following up with 102 participants in the JCSD district to conduct a satisfaction survey, take 1 year after project completion photos of the landscape and schedule some customers with a landscape tune-up to wrap up the program.

BAM Landscape Project & Turf Removal

JCSD in collaboration with BAM WaterWise Landscapes created a collection of design guidelines for turf removal and waterwise landscaping that homeowners could utilize in their own DIY landscape transformations, This project was created to promote the complete or partial removal of existing turf, install more water-efficient irrigation techniques, incorporate drought tolerant and water wise plants, and reduce the excess water run-off during storms or inefficient irrigation techniques. For this project, I was tasked with proofreading documents and designs, uploading and organizing the designs and templates to the JCSD website, linking customers to qualifying rebates and logging customer data for those wanting to participate various related programs such as the leak detection device Flume or free irrigation audits offered by JCSD.

Project Approach

WECAN Project

The WECAN turf removal project removed and replaced up to 1,000 sq. ft. of living turf to drought tolerant landscape from the front yards of participants living within areas designated as DAC in the service area of JCSD. For JCSD to complete this project it took nearly 3 years. At the end, 82 participants completed the WECAN turf replacement and retained the landscape. For my part, I was asked to reach out to all the participants of this project to schedule a time to meet with the customer at their home to take photos of the progression of the landscape and also conduct a customer

satisfaction survey. JCSD was interested to know if the participants of this program were satisfied with the installation, design, maintenance, and water reduction of their new landscape. Using Google Forms, I was able to create the survey, input our findings and compile visuals for the conservation team. From this data, JCSD was able to identify and address maintenance issues and gather insight for other program improvements.

Figure 1. Example of the key stages photographed of the WECAN turf replacement project.

BAM Landscape Project & Turf Removal

For this project, BAM Waterwise Landscapes created designs, templates and how-to tutorials pages for JCSD to distribute to its customers. JCSD wanted to provide the resources for DIY landscape transformation projects and access to applicable rebates. In order to make these resources available to their customers, Edgar Chavez and I proofread and provided edit recommendations for all documents before uploading and organizing the designs and templates to the JCSD website. On the website we provided links for customers to qualifying rebates related to the projects. I also created a database of customer data of those participating various related programs such as the leak detection device Flume and free irrigation audits offered by JCSD.

Project Outcomes

As a result of customer feedback surveys, JCSD was able to identify and address maintenance issues associated with the project that otherwise might not have been addressed. These issues included problems due to irrigation malfunctions and failed plants. It also gave insight to what to improve upon for future projects. The surveys revealed that many customers had preconceived notions that these landscapes would require no maintenance and others had little idea what plant maintenance was required for drought tolerant plants. JCSD learned that education through workshops and developing handbooks would greatly improve customer satisfaction and knowledge for similar project which influenced the implementation with the BAM Landscape and Turf Removal Project.

Conclusions

My participation in these projects, the WECAN Project and the BAM Landscape Project & Turf Removal, have been such a wonderful and valuable experience for me during my path through my undergraduate studies. Because of these projects I have had unique opportunities to speak at a water conference to present my involvement in the WECAN Project, speak in front of local government in Jurupa Valley and speak with residents of the communities in Eastvale and Jurupa Valley. As a person who is passionate about the environment and surrounding issues, this internship gave me a unique insight into the relationship community has with their water and how the water district interacts with the community they serve. Being involved in these projects has bettered my public speaking ability, provided me experience working within the community of need, and strengthen my interest in water conservation and sustainability. I look forward to an opportunity of eventually working for the USDA once I finish my education, and highly recommend to any other students interested in the world of water, forestry, or agriculture.