

## **Final Report**

Community Waste Reduction and Recycling Grant (CWRAR) 2015  
City of Asheville, NC

### **1. Grant Information and Local Contact**

City of Asheville, Community Waste Reduction and Recycling Grant, Contract # 6553  
Contract Term: July 1, 2015 to June 30, 2016

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### **2. Description of Project as Implemented**

The purpose of this project was to expand recycling opportunities and encourage waste reduction in public housing. Prior to 2015, there was little or no recycling access for people living in low-density public housing neighborhoods maintained by the Housing Authority of the City of Asheville (HACA). With this project we aimed to make recycling as convenient as possible by providing 96-gallon recycling roll carts along with in-home recycling containers to each household in the project area. Outreach and education were integral, since recycling was a new concept in these neighborhoods. The target area was the 280 households of the Livingston, Erskine and Walton communities.

The project implementation team consisting of representatives from the City of Asheville, HACA, and Asheville Greenworks met regularly from the spring of 2015 through the end of the year. In July through September, we finalized the brochure and other print materials. We also procured the recycling roll carts and in-apartment bins. Asheville Greenworks delivered the in-apartment bins in person and conducted face-to-face outreach for every household where someone was found at home. They conducted 3 education sessions for the residents to learn more about the new recycling system. Finally, Greenworks planted yard signs at strategic locations to remind residents of their recycling pickup day for the first 3 pickup dates.

The first recycling pickup was October 7, 2015. Pickup has occurred every 2 weeks since then.

### **3. Assessment of Adherence to Scope of Work**

The project as implemented aligned very closely with the scope of work that was submitted with the grant application. We ended up printing some more materials than we originally anticipated, including address label stickers for each recycling roll cart (placed inside the lid of each container), and also informational stickers to cover up outdated information on the used 14-gallon tote in-

apartment containers that we acquired. One item that we did not achieve from our scope of work was the proposed tour of the materials recovery facility for members of the HACA residents council and other interested community members. The project was completed under budget because the cost of recycling roll carts, in-apartment bins, and print services all came in lower than expected.

#### **4. Evaluation of Project Success**

We consider this project to be a solid success. While participation rates are still not as high as we would like, we are greatly exceeding our stated goal of diverting 14 tons of material from the landfill. We also are achieving serious behavior change from many public housing residents and creating a more equitable solid waste program that serves more Asheville residents.

There was a lot of skepticism beforehand about whether it would work at all. Is there room on the street for additional roll carts? How will we reach our audience? Will anyone recycle? Will contamination rates be too high? Through careful planning and coordination, we were able to overcome these challenges and create a successful project.

For other communities contemplating similar projects, we can offer a few thoughts.

- Starting small was very helpful. This allowed our service provider, Asheville Greenworks, to have a lot of face to face interaction which may have been difficult otherwise. For example, when contamination issues were noted, Greenworks was able to visit those households with issues in order to educate and correct
- The importance of communication cannot be overstated. In a community that has never had recycling access before, there can be a lot of misinformation out there. What we may think of as common knowledge about the benefits of recycling may not be evident to the community. Questions about why they aren't financially incentivized to recycle still persist. "If this stuff is worth money, why aren't you paying me for it?" "If you don't pay me, this sounds like a lot of extra work with no benefit."

#### **5. Description of Unanticipated Events**

Fortunately, there weren't too many unanticipated events; things went more or less according to plan. One vendor of 10 gallon in-apartment recycling bins did end up being out of stock of that item after they told us they did have it, and that put us down to the wire for getting those in time. In the future I will make sure to order products like that further ahead of time. The need for the stickers to label the address for each roll cart, and the stickers to cover up the outdated info on the used recycling totes was unforeseen, but solved pretty easily. One other thing we didn't anticipate was that some residents leave their recycling roll carts out on the street and do not move them back to their houses. This creates a problem for our recycling hauler, who is forced to check each cart left out, even if it has no materials inside. We will be discussing enforcement options in our next team meeting.

There were a couple of things that ended up being easier than anticipated. For instance, there was a lot of concern over whether there would be enough room at the curb for both the trash and recycling containers. We discussed whether or not we needed to designate special areas for the recycling carts. In the end, the concerns turned out to be overblown and there was adequate room

for both carts alongside all of the street parking. Similarly, there was concern over whether there would be enough room at all of the different apartment types to store the roll carts when they were not set out at the curb – fortunately there was enough room except in a very small number of places.

## **6. Description of Lessons Learned and Planned Improvements or Changes**

We have been awarded a 2016 CWRAR grant to expand recycling to two more public housing developments, thus we hope to be able to apply our lessons learned immediately.

One needed improvement is in the realm of communication. While we did facilitate quite a bit of face-to-face interaction in our outreach plan, we still did not see recycling participation rates as high as we would like to see. We will be brainstorming more ways to interact with residents and also interviewing some residents to see what they would suggest.

Materials will be ordered/designed/printed earlier the next time than they were in this project.

An enforcement solution for trash/recycling roll carts left out at the curb will need to be examined.

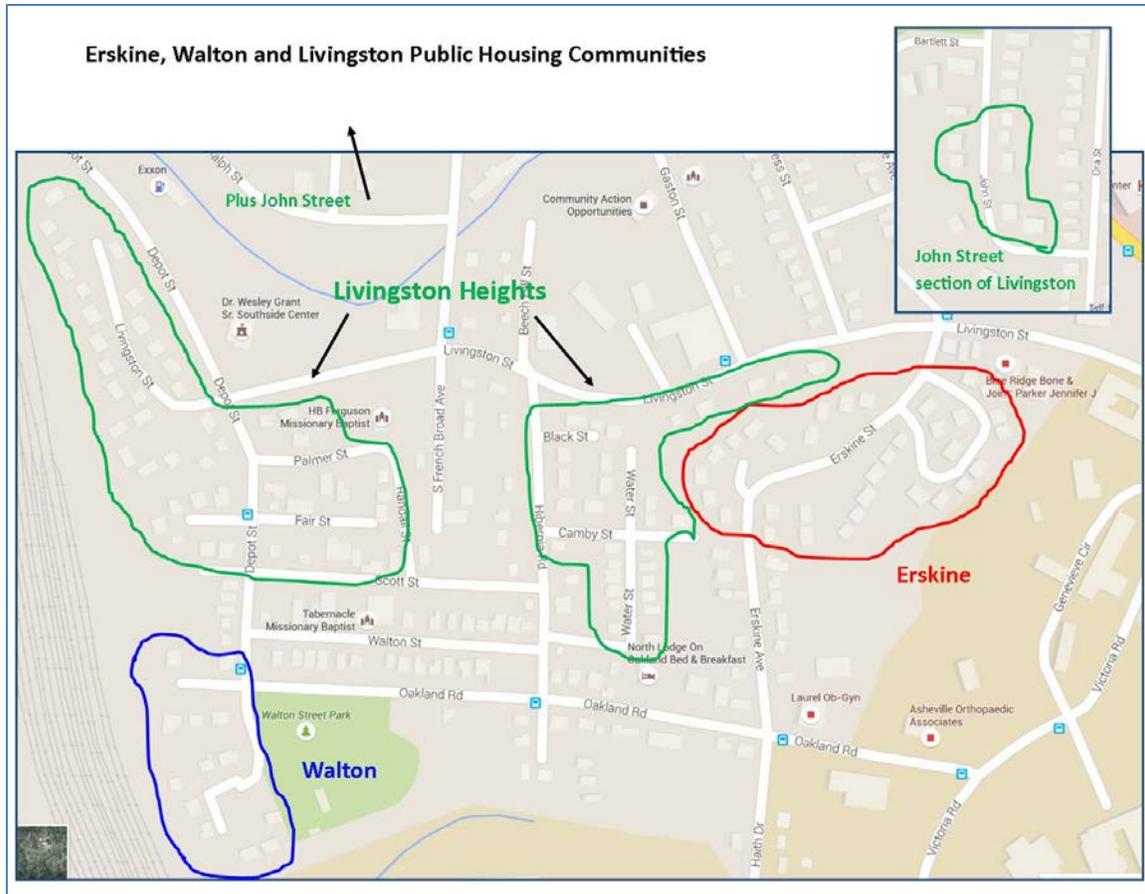
## **7. Description of Community Participation and Impact**

This project provided the recycling infrastructure for 278 households. Of those, approximately 88 participate regularly. Those that do participate do so enthusiastically, recycling an average of 35 pounds per collection day.

## **8. Description of Waste Reduction Impact**

Both solid waste and recycling data were collected before and during the project in order to track the impact. In order to collect this data, we shared the map below with the collections workers. As you can see from the map, these HACA communities are interspersed with regular residential neighborhoods, so it can be somewhat challenging to collect only from the target residences.

For solid waste, City of Asheville sanitation employees started with an empty truck, collected only from the residences shown, dumped this at the transfer station and recorded the weight, and then resumed their normal collection cycle. For recycling, Curbside Management Inc. did the same process, and in addition to weight, they also collected information like how many units participated, and how many roll carts they had to reject because of contamination issues.



Before the project began, solid waste collection averaged 11,400 pounds per collection day in the target neighborhoods, while afterward, that number dropped to 8,452 pounds. This is a reduction of 2,948 lbs per week.

Recycling quantity was of course 0 beforehand, and increased steadily during the course of the project. On 11/4/2015, only 1,820 pounds of recyclables were collected, but by 5/19/2016, upwards of 4,000 pounds were collected.

Recycling is collected every other week, and based on collection data the property is producing approximately 3,015 pounds of material per service event. At 26 service events per year it can be projected that just over 39 tons of recyclables will have been diverted, or roughly 280 pounds per household unit. For perspective, the overall curbside recycling program in the City of Asheville collects approximately 554 pounds per unit.

Contamination (which we measured by the number of recycling roll carts that were refused collection because of contaminants) was always reasonably low. 10 carts showed contamination on 11/4/2015, but after some targeted outreach to those households by Asheville Greenworks, we never observed contamination rates that high again.

Southside Public Housing Pilot Project Results	Prior to Recycling Project				During Recycling Pilot Project								
	8/9/2015	8/26/2015	9/2/2015	Avg	Recycling began October 7	11/4/2015	12/9/2015	1/20/2016	1/27/2016	3/23/2016	5/19/2016	Avg	
Solid Waste Collected (lbs.)	11,600	12,300	10,300	11,400		8,680	8,940	9,300	8,320	7,020			8,452
Recycling Collected (lbs.)	0	0	0	0		1,820			2,880	3,260	4,140		3,025
Recycling Participation	0%	0%	0%	0%		34.2%			28.1%	36.3%	28.1%		31.7%
Number of contaminated recycling carts not collected	-	-	-	-		10			1	0	5		4

We hope of course to be able to increase the participation rate in these communities substantially, which would reduce even more waste going to the landfill.

## 9. Longevity of Project Impact / Life of Investment

We expect the capital expenditures of this project – the recycling roll carts and in-apartment bins – to last at least 10 years. We hope that the behavior change impacts of recycling to last for the lifetimes of the residents of these communities, many of whom are children.

## 10. Description of Materials Developed and Pictures of Final Project

[I will attach images of materials developed and pictures with the next draft of this report.]

## 11. Final Fiscal Report

Table 1 – Project Funds by Source

Project Funds by Source	Dollar Amount Contributed
Local Government Funds	\$17,020.79
State Grant Funds	\$3,404.16
<b>Total Project Funds</b>	<b>\$20,424.95</b>

Table 2 – Project Expenditures

Project Expenditure Areas	DEACS Funds	Grantee Funds	Total Expenditure
Recycling Carts	11,648.00	2,329.60	13,977.60
In-Apt Bins	2,286.79	457.56	2,744.35
Design and Print Program Brochures	794.00	159.00	953.00
Distribution of Apt Bins and Outreach Support	2,292.00	458.00	2,750.00
<b>Total Project Expenditures</b>	<b>\$17,020.79</b>	<b>3,404.16</b>	<b>20,424.95</b>