

## **Roane County Recycling Hub Program**

Division of Solid Waste  
Director Ralph Stewart  
County Executive Ron Woody

The following summary was prepared to show the progression of Roane County's capital improvement plan for the Recycling Center located at 215 White Pine Road, Harriman Tn. Much planning, many factors to consider and much research was involved in determining the direction the center should go.

County Executive Ron Woody recognized early on in his first term of office that changes should be made in how Roane County handled its waste and recycle program. Knowing every citizen is affected by how we handle our waste, Mr. Woody asked the Solid Waste Director Ralph Stewart to develop a five year plan for improving the service.

With direction from Roane County Commission's Solid Waste Committee, the University of Tennessee's Institute of Public service was asked to provide consultants from both the County Technical Assistance Service (CTAS) and Center for Industrial Services (CIS) to conduct a detailed study of operations. With their combined expertise in May 2013, they provided a summary of recommendations on how to improve recycling operations. The report focused on three main issues: economics, performance and best practices.

The economic category was very favorable. It compared Roane County to twenty other comparable sized counties and showed us in the top level in most of the recycle revenue programs. Performance and best practices categories were the two that needed the most attention particularly baling and sorting.

After reviewing the CTAS/CIS report, the decision was made to take a conceptual view for capital improvements. Five phases were identified as follows:

Phase 1: Development of storage area for recyclable materials.

Phase 2: Relocate the employee parking lot and add a storage building.

Phase 3: Improve receiving area and improve the flow of traffic.

Phase 4: Add to the existing recycling building or construct an additional recycling building with additional storage.

Phase 5: Purchase a more efficient baler and add a sorting line.

For more information on the CTAS/CIS study go to the Roane County Government web site- Executive Summary #9D Reference: CTAS/CIS Report (May 2013).

Phases 1, 2 and 3 were mostly completed in 2012-13, although some capital improvements are still planned for improving the traffic and receiving areas. Phases 4 and 5 were considered to be the most far reaching and expensive projects therefore the last to be complete.

### **Hub and Spoke Grant**

In the fall of 2012, Solid Waste Director Stewart attended a conference with other directors from across the state. He overheard a discussion about a state grant called Hub and Spoke. Being curious he joined the conversation and made a note on his return home to mention it to Roane County's Grant Coordinator Joyce Nall. Mrs. Nall followed up on the information on the Tennessee Department of

Environment and Conservation's web site and felt we could meet, if not exceed, the expectations of the grant. With the grant deadline quickly closing in, Mrs. Nall and Director Stewart put as much information together as time allowed and submitted the proposal to the state. Unfortunately, we were denied the grant but TDEC officials encouraged us to try again in 2013.

In 2013, County Executive Woody, Director Stewart and Mrs. Nall continued to focus on attaining the Hub and Spoke Grant for 2013. More research was thought to be the key to success. Mr. Woody and Director Stewart stayed in contact with TEDC officials, county solid waste agencies who had benefited from past grants and state officials who had an interest in state environmental concerns, most notably were State Senator Ken Yager and State Representative Kent Calfee.

Understanding the purpose of the Recycling Hub and Spoke Grant can best be attained by reading the definition on the states website, "The recycling Hub and Spoke Grants are for the development and expansion of regional facilities to collect, transport, and process material for multiple counties and municipalities. The project purpose is to increase recycling between counties and municipalities by promoting greater regional cooperation. Matching funds are not required for the recycling Hub and Spoke Grant".

To meet the grant specifications, Mr. Woody and Director Stewart met with the City Mayors of Kingston, Harriman, Rockwood and Oliver Springs and collectively they agreed to pass resolutions that they would participate as the "Spoke Cities" as the grant specifies. In addition to the cities' participation, we have nine (9) local schools and Roane State Community College who currently have recycling boxes and participate. We have two adjoining counties who are willing to work with us, Loudon County who would like us to handle their plastics and we jointly team up with them now on transportation of electronics, and Anderson County, who for a greatly reduced rate acquired our old baler to begin their baling program.

Grant Coordinator Joyce Nall felt confident that we had met the requirements of the grant and in November 2013 submitted the grant proposal for the second time. On December 24<sup>th</sup>, Christmas Eve, Roane County was notified by TDEC that we had been awarded the grant in the amount of \$265,000 for a baler and site improvements.

#### **Purchase of Baler**

Prior to the grant award, a decision making analysis (DMA) had been completed by staff on what exactly our needs were, whether we should keep the old baler and take a chance it would continue to meet our needs or should the county consider adding the cost of a new baler to our capital recycling plan. The results were divided and the decision rested on the success of the grant application. You can find the DMA on the Roane County website ([www.roanecountytn.gov](http://www.roanecountytn.gov)) under County Executive- Executive Summary #9B.

After receiving the grant, Director Stewart and staff began visiting recycling centers across the state to research what equipment works best and what equipment would best fit our needs. Three site visits were made. The first visit was to Cumberland County's recycling center. Cumberland County had previously been awarded a Hub and Spoke grant so their recycling operations were of high interest to us. The second site visit was to Volunteer Recycling and Salvage located in Portland, TN. Volunteer Recycling and Salvage is a for-profit recycling business so its priority is to handle mostly high profit

materials. The third site visit was to Goodwill Industries recycling plant in Russellville, TN. Goodwill, a non-profit organization, had various contracts with upper East Tennessee counties to handle all recyclable materials similar to Cumberland County and similar to what we expected to see in Roane County.

Director Stewart compiled his research and put together a comparison spread sheet on three compactors. With this information a bid was procured and the results suggested the Harris Badger L50S would best fit both our current and future needs.

Mr. Woody and Director Stewart realized there would need to be an investment outside of grant money if our Hub and Spoke initiative would be successful. Mr. Woody felt it was appropriate that the county being the “Hub” provide recycling trailers with individual bins to collect recyclable materials to the cities. The investment in the recycling trailers provided to the four participating cities was \$72,000. The schools already had trailers donated for their use by the county for a number of years. Site development, much of which was done by the Roane County Highway Department, would also have additional monies attached outside of the grant funds. The baler chosen also had additional cost. It’s extremely important to note that all cost involved in this project outside of the grant monies was projected in the Capital Improvement Plan as adopted by Roane County Commission with no additional cost to the taxpayer!

### **Installation Process and Collection/ Storage Site**

Planning for the installation started in early 2014 after the bid was accepted. Close contact was kept with the winning bidder on construction and delivery time. Internal logistics included every aspect of the county’s recycling processes, such as training for our convenience center operators, storage of materials, changing employees’ schedules, transportation, crane operations for removal of old baler and installation of new one, electrical connections, finances, and site preparation. We then had to answer the question, what do you do with the current baler? The answer to that question came from our neighbor Anderson County. Anderson County is in the beginning of developing an enhanced recycling program and was in need of a baler. Roane County was able to sell Anderson County our old baler to assist them in their recycling effort.

The rear storage site is complete with a large concrete pad and a more convenient area for our community to place recyclable items. Individually labeled bins are available with ample easy access. A larger area has been dedicated to the collection of electronics. The storage and collection site has improved traffic flow making it safer and less congested.

### **Where are we now?**

We are confident that we now have the capacity to handle our recycling needs in a more efficient manner. Our baler operation is capable of loading material into the baler, compressing the material and self-tying it in ten minutes. In comparison, it took the old baler forty-five (45) minutes to do the same amount of material. The weight load for each bale of material averages four hundred pounds more with the bale dimensions approximately the same. The difference in the size and weight of the baled material are evident in both storage and resale value. Our redesigned collection site is more desirable to the public. The storage area is large enough to handle current demand.

### **What is the future?**

We feel we are just beginning. Roane County citizens are much more aware of how precious our natural resources are. Our school children are much more attuned to the importance of recycling and they realize we are depleting our natural elements. Industry is much more focused on protecting our natural environment, and we are stationing ourselves to do our part. We expect to double our efforts in the next year. We are having more conversations with the schools to place more collection containers. Also, we will continue to focus on our cities to encourage our city residents to enhance their recycling efforts. We are looking for ways to encourage our neighboring counties to join us and we are targeting area businesses to partner with us in our efforts.

We are excited and we are prepared to lead the way.

Report prepared by Jack H. Jinks