



## **Recycling Resources Economic Opportunity Fund Grant Program FINAL EVALUATION REPORT**

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## **I. ORGANIZATION INFORMATION**

- 1. Agency Name: New Community Coalition**
- 2. Project Title: Telluride Regional Resource & Recovery Center**
- 3. Name of Project Manager: Kris Holstrom**
- 4. Project Manager e-mail address and phone number:  
[coordinator.tncc@gmail.com](mailto:coordinator.tncc@gmail.com), 970-728-1340**
- 5. Name of person(s) completing this report: Kris Holstrom**
- 6. E-mail address and phone number of person(s) completing this report:  
coordinator.tncc@gmail.com**

## II. WORK PLAN

<b>Deliverable</b>	<b>Completion Date</b>	<b>Comments</b>
Sunrise will expand its Resource Recovery Center in Ilium Valley and hire staff to manage the center and its recycling programs	10/1/08 - 4/1/09	
Purchase a pull-type composter with trailer and create a local source for compost.	3/13/09	Purchase has been completed and unit is in transit.
Purchase a baler to allow Sunrise to sort and package recyclables at its Resource Recovery Center.	12/17/08	
Create a drop-off site at the Resource Recovery Center to benefit regional residents without curbside recycling.	10/08	
Work with local governments to increase recycling through rate structures and incentives	10/2008 and ongoing	Mountain Village's rates and recycling contracts have been revised and recently gone out for bid. TNCC is working with Telluride to accomplish same Zero Waste goals and to include construction waste recycling in the policies. We continue to work on Phase II of MV Zero Waste Plan which will incorporate construction waste recycling as well. New recycling contract with Mtn Village begins in 11/09, Telluride contract pending, Ridgway contract ongoing
Work with local landscapers and garden centers to produce a market for compost material.	5/1/2009	Market for compost has been secured. Some will be given back to town for use in town park as part of the benefit for festivals composting. The remainder will be sold and markets have been ascertained both through local landscapers and local retail outlets.
TNCC will create an education program for community residents and visitors about recycling, composting and zero waste issues.	1/31/2009 and ongoing	Initial programs were completed by 1/31/09. New programs have been implemented in addition to deliverables for this grant, including incorporation into high school curriculum for sustainability and a 3 day field trip for students that included visiting two landfills, two recycling centers and the Grand Junction compost facility.
Work with local festivals and food service businesses to participate in a local compost/recycling program	5/31/09 and ongoing	Ongoing program diverted compostables in summer of 2008 and 2009. New festivals and events have been added throughout summer 2009 including the Fireman's 4 <sup>th</sup> of July celebration, the KOTO DooDah fundraising concert, the Placerville Firemen's Picnic and more.

### **III. GRANT PROJECT INFORMATION**

#### **1. Executive Summary**

The New Community Coalition (TNCC), a 501(c)(3) nonprofit and S.U.N.R.I.S.E., LLC (Sunrise), a local recycling and waste recovery company, were co-applicants seeking funding to purchase a baler and composter for a Resource Recovery Center located in Ilium Valley, approximately five miles from Telluride. A fully equipped Resource Recovery Center near Telluride is a critical step for the Telluride region and San Miguel County to efficiently and effectively divert compostable, construction, and recyclable waste that currently goes to two landfills, between 50 and 75 miles one way. In addition, the Resource Recovery Center will provide new jobs as well as reduce the region's carbon footprint.

#### **2. Project Description & Overview of Work Completed**

The project mainly consisted of the purchase of two vital pieces of equipment and the subsequent increase in diversion and job creation resulting from those purchases. Prior to the purchase of this equipment all recyclables had to be transported to Grand Junction, Colorado – a distance of over 100 miles. All financial benefits for processing the recycling accrued out of the region. The purchase of the baler enabled a local company, SUNRISE, Inc. to process the recycling they pick up locally. Local jobs were created and a significant savings in fossil fuel use and an increase in carbon savings result from the difference between hauling recyclables 100 miles one way, versus 5 miles. The in-vessel composter was necessary in order to facilitate the composting from our festivals and to encourage local composting as well. Due to wildlife (large bear population) and land costs/space issues a windrow composting facility was not feasible. The in-vessel composter creates compost in a covered, controlled manner, more quickly than a windrow situation. It is a valuable component to recycling in our region with a festival every weekend from the end of May through mid-September. Information about recycling reaches many thousands of visitors by being a highly visible component at the festivals. The ability for local restaurants and producers of organic waste to compost locally has been long-awaited.

The project was a unique public/private collaboration that had some challenges along the way. Our high-altitude, remote location was also a challenging factor. Soon after receiving the notice that the grant application was approved we had an experienced consultant advise us to look for a different type of composter. That additional research caused significant delays in the ordering of the composter, but a better product for our region was chosen. Additional delays were encountered due to financing considerations for the balance of the Resource Recovery Park. However, the project has made advances and has already made a difference in our region. The long term increased capacity for recycling and composting in addition to increased access for both residents and visitors is significant.

One of the most enjoyable parts of the grant was the educational component. As part of a high school Sustainability Intensive Study Period in the spring of 2009 we took a group of students on a field trip. We stopped at the landfill and recycling centers in Montrose then travelled to visit the compost facility and the MRF in Grand Junction. The kids filmed the

trip including interviews with people at the facilities. To complete the Study Period they created a 5 minute long film that was then shown to the rest of the student body. Two of the students also attended and were on a panel at the Colorado Association for Recyclers meeting in Vail in May.

The work with our local festivals has been very successful. The increased capacity for composting in particular means that the programs that were in place can continue and can expand. In late May the Mountainfilm Festival had several events that were as close to Zero Waste as possible. An opening dinner for filmmakers and friends (over 150 people) generated less than a kitchen-sized trash can of trash. The trash consisted of the plastic corks from the wine bottles and the plastic wrap used to wrap the food that had to be transported to the location from town. Composting at festivals started with the Telluride Bluegrass Festival, then the Blues and Brews Festival. This year the Firemen's Fourth of July Picnic, the local radio station fundraiser, and the Placerville Firemen's Picnic all composted and recycled materials – a significant diversion of material to our out of county landfills.

### **3. Summary of Findings & Results**

Results were delivery of two major pieces of equipment to increase the recycling and composting capacity of the east end of San Miguel County, including the towns of Telluride and Mountain Village. Ultimate results will be a significant increase in diversion of organic materials from the landfill and a localized and improved recycling capability. Through the creation of a Resource Recovery Park locals and visitors have the ability to have more types of items recycled and more consistency. The fact recycling will no longer have to be transported over 100 miles means a significant savings in carbon emissions. San Miguel County's regional greenhouse gas inventory is nearly complete. This change will be factored in and create a notable benefit. In addition, the compost facility will capture much of the organic matter now being shipped to the two out of county landfills in our region – a distance of over 70 miles one way. Not only will we accrue fossil fuel savings as a region, we will decrease methane producing substances in the landfill.

The program also provides support for the Town of Mountain Village's Zero Waste Program and the Town of Telluride's (due to be incorporated into policy in late 2009). The momentum has grown substantially and the residents of the region are particularly excited to do more and find ways of recycling materials that currently have no viable market in our region.

### **4. Summary of Unanticipated Outcomes or Roadblocks**

The major unanticipated roadblock was the expansion of the vision for the Resource Recovery Park concept by the owner. The equipment that this grant brought to our community was made part of a much more comprehensive overall plan that will have far reaching implications for improving recycling opportunities in the community. That expanded vision and the economy slowed full implementation of the programs associated with the two pieces of equipment purchased. As the responsible non-profit part it was frustrating to work with a private business that did not feel the same level of responsibility for getting information to me in a timely manner for inclusion in reports. An additional

outcome, not totally unanticipated is a much broader interest in composting in the community. People are very eager for full implementation of composting for residents in our region.

## 5. Communication of Project

We have information about recycling in general on our website, [www.newcommunitycoalition.org](http://www.newcommunitycoalition.org). In addition we have a regional recycling guide and field numerous calls each week with questions regarding recycling. Our outreach includes the inclusion of recycling and composting issues in curricula that has already and will continue to be used in 6<sup>th</sup>, 8<sup>th</sup> and 10-12<sup>th</sup> grade in our local schools. It has also been incorporated into an Introduction to Sustainability college level class that was taught in March 2009. Email blasts from The New Community Coalition have gone out regarding the grant and recycling issues throughout the period of the grant and will continue.

**Intro to Sustainability Class – University Centers of the San Miguel, March 2009.** This was a college level class available to the community for college credit. We covered many areas of sustainability including recycling, composting and systems thinking. Topics covered included what can be recycled in our region and why. We discussed in depth the composting facility and how having an in-vessel system would lead to a residential compost pickup service. Pros and cons of personal composting were discussed. The full cycle of ‘waste’ to resource was discussed. A Zero Waste powerpoint presentation prepared by Gary Liss was shown to the class as well. Several class members stayed on to help with the Sustainability curriculum in schools. See below.

Sustainability curriculum in schools. With the help of Jen Nelson, Telluride High School Spanish teacher, Robyn Wilson, director of University Centers of the San Miguel, Michael Moore, student of Kris’ Intro to Sustainability class through UCSM, Walter Wright, TNCC recycling coordinator and Rich Feldman, another Intro to Sustainability class member, we created and implemented the first ISP (Intensive Study Period) for Telluride High Schoolers interested in Sustainability. The ISP consists of two weeks of intensive study of one subject. For our class (of 9 high schoolers) we took a three day field trip and visited: Telluride Resource Recovery Park, Montrose recycling center and landfill, Grand Junction compost facility, Grand Junction MRF (Materials Recycling Facility), Solar Energy International, a hand built, off-grid cob home, participated in Earth Day activities with an alternative school in Paonia, visited White Buffalo Farm, the High Desert Sustainability Center and stayed with and visited the wonderful folks at the Lamborn Valley School – an alternative school on a working farm with a food coop/ restaurant as part of the mix. During the entire trip the students filmed their adventures. So far one 5 minute film on the recycling/trash part of the trip has been created. More will be forthcoming as the students work on their footage over the summer. They also created a display for the ISP “field day” consisting of a sculpture entitled “THINK” made from all recycled materials found in the school’s recycling bin, as well as making cookies in a solar oven. One student drew his concept for a gravity powered generator.

This was tied into our local recycling efforts by discussing what can and can't be recycled here and why. The trip to the Resource Recovery Park showed students how local recycling will be expanded. We discussed composting from small to large scale and how the in-vessel composting system would work, why in-vessel was necessary and what the benefits would be to the community.

These classes were completed within the last 6 months. We are continuing to develop, offer and present sustainability curriculum (that almost always includes recycling and composting since they are integral to this topic) in our local schools. We will be doing a three day renewable energy immersion in Ridgway this fall. Again, we specifically note the carbon savings that result from higher rates of recycling and composting. We are currently in discussions with both the 5<sup>th</sup> and 6<sup>th</sup> grade teachers for sustainability units this fall.

## **6. Future Impact of Project**

This is the most exciting part of the grant. While the implementation has been slow due to several factors, the momentum continues to build. There is a buzz in the community and being able to put out positive responses on how we are increasing capacity in the region is wonderful. In particular as the composter reaches its capacity and we are able to offer the finished product to the community the whole systems approach is easily demonstrated. The impact of this project on the festivals in our region is also of prime benefit. Thousands of people attend festivals each summer in Telluride. Discussions with town staff and others have embraced the concept of Zero Waste festivals. The development of a set of policies for festival contracts means we are creating a “this is the way we do things here” attitude. Of course the festivals will recycle and compost – it’s in the contract. The other aspect of this is that we can reach all these visitors (as well as our own residents) through educational outreach at the festivals. This is another opportunity to showcase the systems approach – the plates, napkins, cups, corn utensils and food are not waste – they become compost. We have and will continue to develop handout materials and info on our website so that our ‘festivarians’ can take these ideas home and implement them there.

## **7. Financial Summary**

RREO Grant Funds – approved grant was \$145,000. The baler was purchased for \$78,801.00 and the in-vessel composter was purchased for \$ 60,795.00. This left unspent funds in the grant allocation of \$5,404.00. In-kind donations included staff time of approximately 120 hours at a value of approximately \$6,000 – this includes coordination and administration as well as curriculum development.

## 8. Final Conclusion

The overall project has brought significant benefits to our region in terms of building recycling capacity. In addition the creation of 5 FTE jobs increases our local economic multiplier effects and provides greater resilience in our community. Having the new capacity means achieving the Zero Waste goals adopted by Mountain Village and currently being incorporated into policies by the Town of Telluride are now achievable. Significant reductions in the region's carbon footprint will accrue due to a large reduction in the number of vehicle miles traveled to get the recyclables to market. The new compost capacity also has significant carbon implications. Reduction of organic materials in the landfills will reduce the methane producing capacity of the landfill. The transportation fuel savings are a double benefit to our carbon equation. The true benefits of this project will really begin to accumulate in FY 2010 when the programs are fully on-line and expand into their full potential.

# Appendix A. Grant Metrics

**Date project fully operational:**

December-09

(Based on deliverables- month that impact of grant would have changed volumes/job creation/participants)

**Diversion Rates:**

(Choose one material per box. Only list those collected over the grant cycle. Must be listed as "tons". See tab labeled "Conversion Tables" if needed.)

Material Diverted #1 <span style="float: right; border: 1px solid black; padding: 2px;">Compostable (Food/Yard Waste, etc.)</span>	
Tons Diverted	
July-08	
August-08	
September-08	
October-08	
November-08	
December-08	
January-09	
February-09	
March-09	
April-09	
May-09	
June-09	1.5
<b>Total</b>	<b>1.5</b>

Other div. material:

Material Diverted #2 <span style="float: right; border: 1px solid black; padding: 2px;"></span>	
Tons Diverted	
July-08	
August-08	
September-08	
October-08	
November-08	
December-08	
January-09	
February-09	
March-09	
April-09	
May-09	
June-09	
<b>Total</b>	<b>0</b>

Other div. material:

Material Diverted #5 <span style="float: right; border: 1px solid black; padding: 2px;"></span>	
Tons Diverted	
July-08	
August-08	
September-08	
October-08	
November-08	
December-08	
January-09	
February-09	
March-09	
April-09	
May-09	
June-09	
<b>Total</b>	<b>0</b>

Other div. material:

Material Diverted #6 <span style="float: right; border: 1px solid black; padding: 2px;"></span>	
Tons Diverted	
July-08	
August-08	
September-08	
October-08	
November-08	
December-08	
January-09	
February-09	
March-09	
April-09	
May-09	
June-09	
<b>Total</b>	<b>0</b>

Other div. material:

**End use of diverted materials:**

(Describe where materials are going [e.g., MRF, new products, reuse])

Compost will be going back to Town of Telluride Parks and Recreation as well as sold to local landscapers and citizens

**Number of Permanent Jobs Created:**

(Include full-time & part time paid positions. 1 FTE = 2080 Hours Worked)

5

**Type of Permanent Job(s) Created:**

(Provide titles of jobs created)

Manager, Collections (2), Reprocessing (2)

**Average Salaries of Jobs Created:**

(Average of all jobs created)

\$30,001 - \$40,000

**Average Monthly Customers for FY 08:**

(July 1, 2007 - June 30, 2008)

1200

**Average Monthly Customers for FY 09:**

(Estimate or customer lists)

Ave. Monthly Amount	
July-08	1200
August-08	1200
September-08	1200
October-08	1200
November-08	1200
December-08	1200
January-09	1200
February-09	1200
March-09	1200
April-09	1200
May-09	1200
June-09	1200
<b>Ave. / FY 09</b>	<b>1200</b>

**Are you willing to provide a six month summary after the grant ends for CDPHE?**

yes

## **Appendix B.**

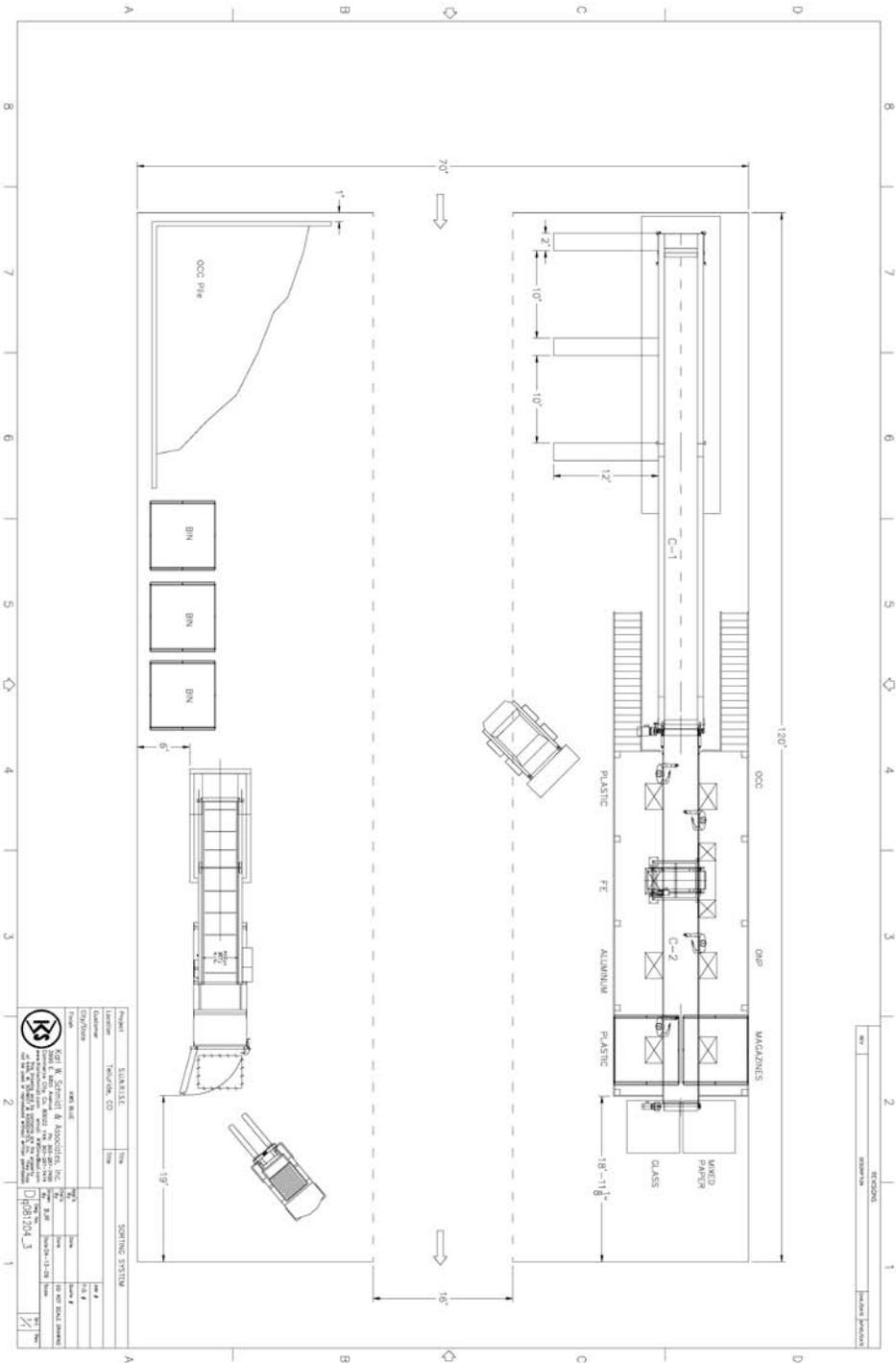
### **Community Leaders Contact Information**

Bob Delves, Mayor, Town of Mountain Village, 970-728-0519, [bdelves@mtnvillage.org](mailto:bdelves@mtnvillage.org)

Stu Fraser, Mayor, Town of Telluride, 970-728-9110, [sfraser@roadrunner.com](mailto:sfraser@roadrunner.com)

Elaine Fischer, San Miguel County Commissioner, 970-728-4141, [elainef@sanmiguelcounty.org](mailto:elainef@sanmiguelcounty.org)

# Appendix C



Baler configuration within Weatherport structure at Resource Recovery Park

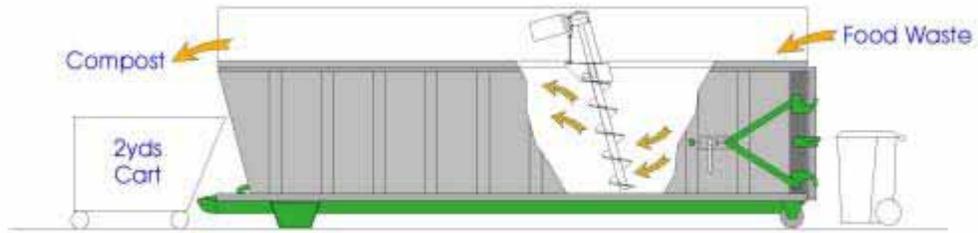
# Earth Bin



## *Commercial Duty Compost System*

The Earth Bin is designed to fill the capacity gap between the Earth Tub and the Containerized Compost System. Depending on the number of units, from ¼ ton to 2 tons per day can be composted with this system. The Earth Bin is an automated version of the Earth Tub with a much larger vessel. Using the proven mixing capacity of the inclined auger, the Earth Bin has automated the motion to create one of the simplest in-vessel composters on the market. The inclined auger mixes and advances the compost down the vessel with each pass. The control panel allows the operator to select the number of times per day that the compost is mixed as well as add moisture via a sprayer on the mixer.

## The Earth Bin Plug Flow Design



Plug flow means that raw waste is loaded into one end of the vessel and compost comes out the other end. The unique design of the Earth Bin allows a single inclined auger to both mix, advance and discharge the compost from the vessel.

## Earth Bin Specifications

Vessel	EB-20	EB-30
Volume (cubic yards)	20	30
Processing Capacity	.25 - .5 tpd	.5 - 1 tpd
Length Overall	23'	24'
Width Overall	8' 3"	8' 3"
Height Overall	5' 6"	7' 6"
Insulation	3"	3"
Drain Ports	Two 3"	Two 3"
Tare Weight (approx)	6,500 lbs	8,800 lbs

### Mixing System

Mixing Auger	12" 304 SS	12" 304 SS
Auger Drive Motor	3 hp 3 phase	5 hp 3 phase
Auger Gearbox	Helical bevel	Helical Rt angle
Carriage Drive	VS 1/4 hp motor	VS 1/4 hp motor
Rail Drive	VS 1/4 hp motor	VS 1/4 hp motor
Material Depth	4'	5'

# Frequently Asked Questions

## What is the Earth Bin™?

The Earth Bin™ is a mid- scale in-vessel composting system for recycling organic waste materials at the site where they are generated. Complete with a bio-filter for odor processing and control, this system provides a neighborhood friendly efficient composting technology. The Earth Bin™ has been developed specifically to meet the composting needs of universities/schools, restaurants/cafeterias, commercial food processors, hospitals, multi-unit residential dwellings, camps and other institutional organic waste generators who generate from 700-2000 pounds per day of food waste per vessel.

## What is unique about the Earth Bin™?

The Earth Bin offers the sophistication of large in-vessel composting systems to the mid-sized institutional generator at an affordable price.

## What are the key features of the Earth Bin™?

- Modular and expandable design allows flexibility in application
- Bio-filter processes odors and accelerates the compost process
- High rate composting reduces volume and stabilizes material quickly
- Powered auger is thoroughly effective for mixing and shredding most foods
- Insulated design allows for operation under winter conditions

## How much organic waste must an institution generate to use the Earth Bin™?

For on-site composting, the Earth Bin™ is capable of processing as little as 300 lbs (120 kg) per day or as much as 2000 lbs (250 kg) per

day. The modular design of the system allows it to be adapted to a wide variety of applications and configurations simply by adding more Earth Bins.

### **What if your organic waste stream increases?**

Expansion capability is one of the key features of the Earth Bin System™. By virtue of its modular design, the system is ideally suited to incremental capacity increases. This system is a perfect application for gradually introducing composting to the institutional organic waste generators.

### **What are acceptable Materials for Composting?**

The system is designed to process Kitchen prep waste and plate scrapings. Green garden waste and manures will easily compost in the system. Meats, cheese, and other fatty foods should be kept below 15% of total waste input. Avoid adding large pieces of meat, fats or oils to the system.

### **How cold can it be and still maintain compost temperatures in the Earth Bin?**

The Earth Bin has been installed in some very cold locations. It may need supplemental heat if the temperature remains below 10F for more than 7 days. The aeration system should be shut down during cold weather.

### **Do I need a shredder for the Earth Bin?**

If you are composting organic waste that is collected with cardboard, biodegradable utensils or biodegradable bags then we recommend a high torque type shredder to prepare the waste for composting. If it is

only food waste and pre ground wood chips, then a shredder is not required.

## Description of Operations

*Below is a summary of the 4 basic steps to the Operation of the Earth Bin.*

- An organic “recipe” (i.e., a mixture of food waste and wood chips) is loaded into the Earth Bin™ through the loading hatch or via bucket loader or conveyor from the shredder.
- Once the active composting cycle is complete (approximately 3-4 weeks), the auger discharges the compost through a end door of the vessel. In order to remove all the compost, the dump door is opened and the auger lifts the compost out of the bin. The compost either falls into a 2 yds rolling container or the bucket of the tractor.
- This compost can be used directly as mulch or can be cured (stand in a pile) for 30-60 days before being used as a soil amendment. Screening will make the finished product even finer!

### ***1. Food Scrap Loading***

The first step is to make sure that the kitchen waste is collected for composting with as little contamination from plastics, etc. as possible. Hard foods such as pineapples, stale loaves of bread, etc., should be chopped up prior to disposing in the Earth Bin™. Because food scraps are wet, a dry bulking agent such as wood shavings must be added to create a balanced compost recipe.

### ***2. Mixing and Shredding***

Once the new material has been added, you are ready to begin mixing. The powered auger system has been designed to take the work out of turning over your compost pile. A complete mix should take approximately 30 minutes, and should be performed at least two times per week.

### ***3. The Active Composting “Baking” Phase***

Thermophilic composting at temperatures above 115 F occurs rapidly in the insulated bin. The food waste becomes soft or “baked” at this temperature and is easily shredded by the notched auger. Continue adding material until the bin is full to the top of the auger screw. During this time, the operator should mix the material at least once per week.

### ***4. Unloading and Curing the Compost***

Once the compost has finished active composting, it is ready to be unloaded. In order to remove up to two yards of the compost, the dump door is opened and the auger lifts the compost out of the bin. The compost either falls into a 2 yds rolling container or the bucket of the tractor.



#### **Standard Features Include:**

- Hydraulic Door Latch (EX63 only)
- Regenerative Circuit (EX63 only) Reduces cycle time by 17 seconds
- The EX62 is manufactured standard with either left-hand or right-hand door swing
- 20 HP TEFC Motor, Standard Voltage - 208, 230, 460 Volt, 60 Hertz, 3 Phase
- Horsepower limited Pressure Compensated Piston Pump
- Removeable Shear Blade with Four Cutting edges
- Six Fully Guided Wire Tie Slots
- Automatic Bale Sizing System
- Automatic Shear Jam Correction
- Short Stroke Feature to Reduce Cycle Time
- EXCEL's® 1-2-3 Warranty (1 Year Labor, 2 Year Parts, 3 Year Structural & Cylinder) (U.S.A. only)
- Complete with MV32 Hydraulic Oil
- NEMA 12 rated Enclosures and Controls
- Remote Controls - According to Door Swing
- Safety Interlock Door with Decompression
- Clean Out Tool, Grease Gun, and Extra Touch Up Paint
- One Bundle of 12 x 13 Single Loop Wire Ties
- Sandblasted, Primed, and Painted EXCEL® Blue for Long Lasting Durability

- Standard Hopper
- Lower Photo Eye
- UL, CUL Approved (CE Available)
- PLC Controlled Operation
- Available with an EXCEL® above ground or in-ground conveyer for a turn-key system

The EXCEL® Models EX62 & EX63 bales the following materials:

- Office Paper
- Newspaper
- OCC
- Magazines
- PET
- HDPE
- Aluminum Cans
- Tin Cans
- Plastic Film
- Carpet Padding
- Textiles
- Other materials

KW.

# Aiming for zero waste in Mountain Village

**M**ountain Village set a green, progressive precedence in October of 2008 when the town council unanimously adopted a zero waste resolution. Full implementation of this resolution will span several years with the intention of zero waste, or darn close, by 2025. One of the initial, and crucial, steps in achieving this goal is to devise a residential "Pay as You Throw" volume-based solid waste and recycling program. Establishing such a service will encourage residents to reduce waste through increased recycling of paper products, glass, metal, plastics and other materials. At this month's town council meeting, the council will review an ordinance that provides financial incentive for those residents that decrease their household solid waste and mandates recycling. This means that any town-approved recycled material is not be placed in refuse

containers.

Some other goals of the draft ordinance:

- Provide convenient recycling services that help residents decrease the amount of solid waste sent to landfills.
- Enable individual households to reduce their cost to dispose of refuse with different pricing structures for three different sized containers.
- Increase waste reduction and recycling practices.
- Create an economy of scale by consolidating town-provided commercial solid waste and recycling with residential services under one contract.
- Ensure high-quality customer service.

Of course, with such an ordinance, Mountain Village residents will be impacted to some degree. Residents currently covered by their homeowner association trash/recycling contracts in multi-family dwelling will be phased into the zero waste program. Rates

for trash service will be volume-based to encourage recycling — the more trash a customer generates, the more they pay. Moreover, curbside recycling is included in the cost of trash service. And last, basic trash/recycling service will be billed to residents on their current water/sewer bill. In turn, the town will provide both recycling container(s) and "bear proof" refuse containers in multiple sizes — 32, 64 and 96 gallons.

Again, town council will take action on first reading of this ordinance during its March 19 meeting. The meeting begins at 8:30 a.m. in Mountain Village Town Hall. Those unable to attend may watch via [www.townofmountainvillage.com](http://www.townofmountainvillage.com). During public comment time, you may e-mail your questions and comments to Nichole Zangara at [nzangara@mtnvillage.org](mailto:nzangara@mtnvillage.org); they will be presented to council.

— *Greg Sparks is the Mountain Village Town Manager*

Greg Sparks  
GUEST  
COMMENTARY

## EDUCATION

# EcoKids

resource recovery, the new recycling

BY ETHAN CASSELLBERRY AND ARIN KLEIMER

**LIU VALLEY** - It's garbage day and the blue recycling bins are out on the street. Do you ever wonder what happens to the garbage in them?

We went to S.U.N.R.I.S.E.'s Resource Recovery site in Ilium Valley. Jonathan Crecinspan,

owner of S.U.N.R.I.S.E. (San Juan Lincolphure National Resource Recovery Industrial Services for the Environment), took us on a tour of the site. Employees from S.U.N.R.I.S.E. come around on garbage day and collect the garbage from the blue recycling bins on the street. They sort it into glass, cans, plastics, cardboard, and paper, and take

it to the Ilium Valley site. The plastic, paper, cardboard, glass, and cans are then sent out to be recycled at other places.

They have a compactor, forklift and much more at their site. They are building an office made out of 87 percent recycled material in the yard. There was a woodchipping machine and several piles of different sized woodchips. The collection center recycles wood into mulch and small wood chips that can be used in your flowerbeds. They put old wooden pallets and wooden boards onto a conveyor belt. The wood chipper grinds them up and shoots them out as chips. The largest chips can be used for playground base or ground cover in your yard. Some of the chips are sent through the machine again and made smaller, and then mixed with dirt to make mulch for gardening. The chips and mulch are put into large plastic bags and sold in stores.

There were several piles of different sized logs. Some of the logs are split for firewood, the longer ones are used to make fences. The cardboard is banded into large bales, like hay bales, before being sent out for recycling. Newspapers are sent to a paper mill in Idaho to be recycled and made into new paper. There was a huge con-



**RECYCLE!** - Arin, left and Ethan, right, stood at the entrance to S.U.N.R.I.S.E.'s Resource Recovery site. (Photo by Laurin Casselberry. Cardboard bundles waiting to go out to be recycled [bottom]. (Photo by Ethan Casselberry.)

tainer that they were making compost in.

One of the interesting things they do with old food from the Bluegrass and other festivals is

to compost it and mix it with the wood chips to make mulch. The three Rs of recycling are reduce, reuse, recycle. Recycling turns old materials into new products. Everybody should recycle because landfills are filling fast. More than three-quarters of everything put in landfills can be recycled. Resource recovery is good because what we throw away gets reused instead of being put into landfills. As the population grows we need to help save the earth for future generations. Buying recycled products whenever possible also helps complete the recycling circle.

# San Miguel County Recycling & Waste Disposal Guide



**REDUCE REUSE  
RECYCLE**

**REDUCE** - Be a green shopper! Buy in bulk, shop with your own reusable bags, avoid purchasing over packaged merchandise, request environmentally friendly take-out containers, bring your own coffee cup. Purchase only what you need or can use, particularly in the area of hazardous materials such as paints or household cleaners. Cancel unwanted catalogs & other junk mail.

**REUSE** - Pre-cycle paper, use the unused side of office paper for document drafts, fax cover sheets, or internal memos. Make scratch pads from waste paper. Reuse bags and food containers, give them a second life. Repair whenever possible. Donate usable construction materials or household goods and clothing to charities, or sell them on KOTO Trash or Treasure, or in the local classifieds.

**RECYCLE** - Recycle materials are a commodity and the markets change for these materials over time. Many of materials are processed at a center in Grand Junction. Materials accepted for recycle are generally the same throughout San Miguel County. More about specific programs in your area of the County is provided on a subsequent page. Accepted County-Wide:

- **Co-mingled (mixed) paper** including news paper, white or light colored office paper, glossy magazines and junk mail.
- **Co-mingled cans, glass bottles & jars and plastic bottles**, no yogurt or other wide top plastic containers at this time. Empty & rinse these containers.
- **Corrugated cardboard** (NOT paper board such as six-pack holders or cereal boxes at this time) A special pickup call may be necessary.
- **Appliances** can be recycled—Call Recla Metals in Montrose 249-7922
- **Household and office electronics** can be recycled for a fee. Events are held twice annually in May & October through local governments.
- **Household hazardous waste** can be disposed of during annual spring cleanup. More details follow on page two of this guide.

## Factoids:

- Different types of plastics melt at varying temperatures. For this reason some plastics cannot be recycled at this time. Regional recyclers are able to process plastic bottles #1 PETE & most #2, not open yogurt style plastics.
- Currently regional mixed paper is being made into cellulose insulation.
- For every pound of trash you create, 71 pounds of waste is produced behind you from mining, logging, manufacturing & distribution systems.

## Composting

Composting of kitchen or garden waste is a viable option for local residents providing measures are taken to avoid attracting bears and other wildlife. The New Community Coalition and San Miguel County are working on a regional composting program to set up two centers for composting with the goal of accepting restaurant and residential compost materials and producing garden compost for the use of local landscape contractors and home gardeners. ☀

## Why?

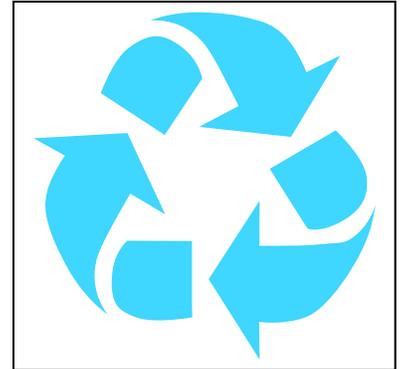
- ✓ **Improved resource management.** By following the three R's we encourage efficient use of limited raw material resources. In addition the extraction/production of raw material can produce dangerous by-products or environmentally detrimental chemicals.
- ✓ **Waste Reduction.** Continued landfilling of waste is not sustainable. Toxins from waste materials in landfills leach into groundwater and streams causing environmental degradation. The compacted trash in landfills does not break down due to a lack of aeration.
- ✓ **Energy Savings** Reducing and reusing in particular are huge conservers of energy, and often the recycling process utilizes significantly less energy than producing a product from scratch with raw resources
- ✓ Purchasing & utilizing products made from recycled materials is as important as the act of recycling household and business waste. For example by purchasing recycled content paper, you help create a market for more paper companies to produce affordable recycled paper for office and home.

# Recycling Guidelines by Area

## Town of Telluride

Curbside recycling is required for both residential and commercial properties. Every property is charged bi-monthly with water/sewer bills for the service. Receptacles are emptied weekly by the current contractor, Waste Management Inc. Commercial customers can pay to have a larger receptacle supplied and emptied weekly. Fees vary by the size and number of bins. The program accepts:

- Co-mingled glass, metal cans, and plastic bottles
- Mixed paper – junk mail, copy paper, news paper
- Corrugated cardboard for commercial & special request for residences.



## Mountain Village

Trash and recycling is not required for Mountain Village residents and businesses, but it is offered and billed to utility customers. The program accepts co-mingled glass, metal cans, and plastic bottles. Paper can be mixed for recycling as in other areas of the county. Mountain Village has recently increased the visibility of recycling drops in the gondola stations.

## Other County Recycling

County residents are not required to contract for trash & recycling pickup, but many subdivisions provide guidelines or requirements through home own

- Down Valley can contract with trash providers for a weekly pickup of recycling.
- Lawson Hill has a centralized drop center for their residents.
- Ophir has a central facility for trash & recycling for residents.
- Most subdivisions have curb pickup contracted individually by their residents.

## Wright's Mesa

A free household trash and recycling transfer station funded by San Miguel County is located on County Road AA42-Burn Canyon Rd. south west of Norwood. The same mixes of recycling are accepted at this facility as are outlined above.

## Special Disposal Opportunities Open to all County Residents

- Bi-Annual electronics recycling drop held in May and October. Location is the Town of Telluride Black Bear Road leading to Town's Public Works Facility. Call for actual dates 728-2177. **\$ Fees**
- Annual Spring Cleanup – Household & garden refuse is accepted. Scrap metal and appliances are recycled. Tires, vehicle batteries, lumber and reusable items accepted. 3<sup>rd</sup> weekend in May.  
**Fees for appliances with freon & tires.  
Free Otherwise - Donations Accepted**
- Annual hazardous waste disposal event Saturday of Spring Cleanup week. Call for more details 369-5442. **\$ Fees**



This publication is produced by San Miguel County & The New Community Coalition.  
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County – 369-5442  
[www.sanmiguelcounty.org](http://www.sanmiguelcounty.org)

## **Compost/Trash/Recycling Curriculum –**

**For THS – ISP – Spring 2009 – a two week integrated class on sustainability**

**Kris Holstrom, Walter Wright, Robyn Wilson, Michael Moore, Rick Feldman, Jo Nelson - instructors**

### **Intro to Trash**

History – midden piles as source of info – and what else (disease)

From Table to Trash - Where is “away” – (we throw stuff ‘away’)

Discuss landfills

Why were they created in the first place?

Do things break down in a landfill? Tie to GHGs – methane.

Carbon costs of hauling trash

Show “The Story of Stuff” (free download from website)

Discuss video – including message of reduced consumption, greater recycling, advertising and pros and cons of the message

Focus on materials – cost of mining and continually using virgin material which leads to

Activity: Have students raid class trash bins and characterize trash as to types of materials, volumes of each, whether or not item is reusable, recyclable or compostable.

### **Recycling**

Discuss Reduce, Reuse, Recycle, Repair, Rethink – priority of each

Reduce – decrease consumption, buy in bulk, buy needed products with less packaging, local plastic bag challenge – economic implications?

Reuse – Telluride Free Box, reusing glass containers, plastic bags, etc. Use until things wear out!

Recycle – the physical transformation of an item – aluminum melted back into aluminum cans. What are the savings in terms of resources and energy in particular.

Repair – a nearly lost art. Why do things seem to break so easily – ex: electronic appliance repair. Usually are told that it is more expensive to fix something than to buy a new one. What might be done about that? How to keep ‘fix it’ skills.

Rethink – ex: WalMart telling its suppliers that they must come up with reduced packaging or WalMart won’t buy from them (a digression into the power of a large corporation - for both good and bad. Rethinking our own habits as well. Training ourselves to bring reusable bags, our own beverage containers, etc.

What happens at recycling centers – preview for field trip to Grand Junction MRF

Review recycling numbers on containers and what that means

What can be recycled locally? (Give out SMC Recycling handout) WHY NOT MORE?

Discuss recycling markets, transportation costs, local issues, Zero Waste Initiative in Mountain Village, SUNRISE Resource Recovery Park – (note difference between Resource Recovery and idea of a ‘dump’.

Activity: Gather all recyclables in the school for several days and create something with it for educational display. Students work together on project design and implementation.

## **Compost**

Percentage of waste that is organic matter in our country  
Describe compost process – carbon/nitrogen ratio, microorganisms involved, heat produced  
Home composting versus commercial composting  
Worm composting basics  
Discuss festival composting and CRT issues – why volunteers are essential  
Local issues regarding food waste – BEARS!  
Describe new facility at SUNRISE and brainstorm ideas for local compost collection  
Discuss school lunch options for composting.

Activity: Make several worm bins for Cuisine ISP class – and several for students to take home.

## **SUSTAINABILITY FIELD TRIP**

**CRT Portion:** Visit Montrose County Recycling Center, Montrose Landfill. Travel to Grand Junction Landfill and view composting portion of the site. Visit Grand Junction – Waste Management MRF – tour with staff of recycling process from truck to product being shipped out.

Related: on rest of field trip keep reminding students of their trash, compost and recycling opportunities as well as what could and/or does happen on farms and facilities we visit.

ACTIVITY: Students have chosen to film the trip and create short video pieces about portions of their field trip.