

Frederick County Public Works • Winchester, Virginia



### Valley Proteins: A lesson in zero waste

### **Valley Proteins Inc.**

Rendering/Recycling of Animal Byproducts; family-owned and operated, founded by Clyde A. Smith in 1949.

Gerald F. Smith Jr., president

### **Highlights:**

- 3.5 million pounds of material processed/recycled each week
- Fats converted to biofuel
- Treated wastewater used to irrigate field crops
- Zero Waste

### **Contact info:**

151 Valpro Drive P.O. Box 3588 Winchester, VA 22604 (540) 877-2590 E-mail: jjsmith@valleyproteins.com www.valleyproteins.com FREDERICK COUNTY – Most recognize that the large blue trucks traversing area roads collecting used grease, bones and fat from local supermarkets and restaurants are headed to the Valley Proteins rendering plant in western Frederick County. There, animal byproducts are converted into liquid fats, oils, fuels and poultry and meated bone meal. That's the end of the story, right? Not at all.

The local rendering business was founded by Clyde A. Smith, grandfather of the current president, Gerald F. Smith Jr., in 1949. It continues today as one of 21 locations. The Frederick County plant processes about 3.5 million pounds of material each week that would otherwise be destined for the regional landfill, Smith said. Based on industry standards, this would account for about 25 percent of all waste disposal at landfills, making animal products extremely challenging to manage.

"Recycling is this business. . . . There wasn't anything noble about the purpose. We recycle out of necessity."

- Gerald F. Smith, Jr.

Smith explained that only about half of a cow or hog is meat. The rest is waste - bone, fat, hide, etc. Another three percent will not be sold before expiration. At present, 82 percent of all animal byproducts come from large slaughterhouses, he said. Little waste



Valley Proteins' expansive acreage contains spray ponds used to irrigate hay fields. The ponds hold treated wastewater during winter months. Tom Gibson, a district manager, is shown next to one pond. Gibson formerly served as head of the company's environmental programs.

comes from supermarkets since few still have butchers on staff.

What Valley Proteins does is keep this waste out of landfills, pay customers for their greases and bone and generate value out of what is taken in, Smith said. Last year, the company paid out close to \$100 million for animal byproducts.

Growing up in the business, Smith described the rendering process as identical to frying a pan of bacon at home: First, fat melts from the strips of bacon. Moisture is released. The bacon is removed from the pan. The fat is poured into a jar where it separates. This fat has a BTU rating and can be used to fire the plant's boiler or make biofuel, depending on market conditions. Any dark bits of protein at the bottom of the jar are sent back through the plant.

In addition to renewable energy, Valley Proteins creates fuel for livestock and pets in the form of protein-rich products. In the last year, the company sold 32.5 million pounds of protein and 54.5 million pounds of fats from the Frederick County location alone.

Any moisture extracted from byproducts or created by the plant is captured and condensed in order to control odor. Since the plant is not permitted through the Virginia Department of Environmental Quality to discharge its treated wastewater, all water is used to



Joe Gore (left), owner of Gore's Slaughterhouse in Stephens City and a longtime supplier to Valley Proteins Inc., meets in the butcher room with Rick Nesselrodt, Valley Proteins' transportation manager. The Winchester location receives the bulk of its material from local slaughterhouses.

irrigate the approximately 800 acres owned by Valley Proteins. This acreage is planted in hay and sold to local farmers. During the winter months, water is held in a lagoon until the next growing season.



# Photo by Jeff Taylor, The Winchester Star

## Reclamation Woodworks: Diamonds in the rough

### **Reclamation Woodworks**

Father-son venture specializing in building furniture, chests, etc. from reclaimed wood formed in 2008.

Bruce Morrissey & Seth Morrissey

### **Highlights:**

- Self-described "treasure hunters" preserving Valley barns one board at a time
- Reclaimed approximately 10 structures thus far
- Added two employees since January 2012
- Zero Waste

### **Contact info:**

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brucemorrisey@ comcast.net http://about.me/ reclamationwoodworks MIDDLETOWN – When Bruce Morrissey looks at an old piece of wood, he sees more than just its wear and tear.

He sees diamonds in the rough.

"Some people call it defects, I call it character," said the Middletown resident.

Having always had an interest in woodworking, the retiree made the decision three years ago to start a business to transform wood that people no longer wanted into treasures that could be sold and then passed down from one generation to the next.

On the site of the former Route 11 Chips factory off Main Street, Morrisey opened Reclamation Woodworks, transforming the vacant space into a workshop where he practices his craft.

"We went from potato chips to wood chips," he joked recently as he stood among his woodworking equipment equipment and the reclaimed wood he uses for his projects.

The business, which has since become a joint venture with Morrisey's 25-year-old son Seth, specializes in taking the wood recycled from old barns the duo tears down and using it to create cabinetry, tables, chairs, benches, chests and pretty much anything else they can dream up.

"If it can be made out of wood, we can probably make it," Morrissey said.

Photo left: Woodworker Seth Morrissey uses reclaimed lumber from dismantled barns to make furniture. He and his father, Bruce, have a shop in the former Route 11 Potato Chips building.



He has built an outhouse and shed and even constructed hardwood flooring from the salvaged wood.

Originally from Rhode Island, Morrissey moved to Virginia to attend school. He lived outside the area before settling in Middletown in 1989.

Before retiring, he held a number of jobs over the years, working for Xerox, with children with disabilities and even as a cabinet maker.

With a father who dabbled in carpentry, Morrissey, who is in his 60s, took to woodworking, too – but only as a hobby.

"The wood is reclaimed, the equipment is reclaimed, and parts of me are probably reclaimed, too."

- Bruce Morrissey

But an ad in The Valley Trader advertising magazine led him to an old barn outside Winchester and a new profession in Middletown.

Morrissey tore down the barn and was inspired to use its aged wood and materials as more than just lumber.

"It was beautiful old stuff," he said, recalling that benches were likely among the first pieces of furniture he created from the reclaimed materials.

Woodworker Bruce Morrissey stores shorter pieces of reclaimed wood in metal barrels in his shop in Middletown. He and his son operate the business.

With a notion for a woodworking businesses, and available shop space next to the feed store where Route 11 Potato Chips got its start (before moving to Mount Jackson several years ago), a business venture was born. Just like the wood and other materials he uses in his creations, Morrissey's wood-working tools and equipment are also second-hand.

"The wood is reclaimed, the equipment is reclaimed, and parts of me are probably reclaimed, too," Morrissey joked while standing in his work space, surrounded by the recycled materials.

On a serious note, however, he has made sacrifices, some of them financial, to make a run at this dream business.

"This is my retirement," Morrissey said.

He is proud that his son has taken an interest in the woodworking business. "I did it with my dad, and now he's doing it with me," Morrissey said.

And Seth is a fan of the creativity that has sprouted from transforming the vintage wood into something that, while not new, is new to its owner.

"It's good," said Seth, a Sherando High School graduate."

Both said that they have learned a lot from each other while working together.

Seth, who averages three days a week at the business, has picked up woodworking skills from his father, but he also has brought some of his own techniques to the table.

He and his father, who can be found at the shop "Sunday through Sunday," have torn down several



Seth Morrisey searches for a perfect board for his next project.

area barns together to reclaim its materials for furniture, floors and framing.

"It's like a treasure hunt," Morrissey said.

Most of the materials they find and work with, whether comprised of wood or not, have had a previous use.

Hinges from old doors have become hinges for a chest, and an old door has become a tabletop. Nails and screws and recycled, too.

A couple of years ago, Morrisey and Seth even cleaned up some wooden cable spools they found and converted them into tables for The Irish Isle Restaurant & Pub on Main Street in Middletown, where Seth previously worked as a chef.

"It's about having something that can last and be kept for years and years," Seth said.

And just as the length of time to complete a creation depends on the scope of the project, the time it takes for the father-son team to tear down a barn depends on its size.

"It's an experience," Seth said. "You have to take it down easy."

They can't go in swinging at and knocking down everything they see. Rather, Morrissey and Seth try to preserve the integrity of the vintage wood, which they later cut to size to fit the nature of their projects.

"I say that we are deconstructing, not destroying," Seth said.

He and his father agree that the quality of wood they find while deconstructing the old barns – at least one which dated to the 19th century – is unlike what one can find today at home-improvement stores.

"The wood we find you can't find anywhere else," Morrissey said while holding a piece of the vintage building material. "They don't make it like this any more."

After retrieving the wood, Seth said, the first thing they do is give it a good wash. "Everything gets at least cleaned," he said.

The techniques they then apply to the wood depend

on the material itself and the planned use for it.

Morrissey said it can be brushed, finished with a coat of tung oil or drying oil, or smoothed out and flattened with a woodworking tool called a planer.

Two pieces of wood from the same barn can take on a completely different look.

Still, he and Seth like to keep the naturally aged look of the wood, as well as its defects, to preserve its originality and uniqueness.

"The wood talks to you," Morrisey said. "It tells you what it wants to be."

The woodworkers, who aim to make quality pieces that will stay in families for years, will create custom works by request."

From the outside the shop, which faces First Street, one would not likely know that on the inside, a fatherson woodworking operation is in full swing.

In the winter, the building is dim and drafty inside. But in the summer, Morrissey said, they have the doors open and the radio cranked up.

Most people who live and work in Middletown are familiar with the Morrisseys' work and their business.

"We've had a lot of repeat business," Morrissey said, noting that friends and neighbors have been clients.

Still, Seth said, it took a while for Reclamation Woodworks to get off the ground.

They publicized their business through word-of-mouth and by handing out business cards.

And Morrissey's daughter (and Seth's sister) Dana –

who lives out of state – created the website about.me/reclamationwoodworks to help promote the venture.

The woodworkers have only sold their works from the shop, but they encourage people to stop by and take a look at what they do or to make a customized furniture request.

Eventually, Morrissey might build a workshop on land he purchased along Mine Bank Road before opening the business. But for the time being, he plans to stay put.

He and Seth enjoy using the wood and materials that they recycle from area structures to create items that stay in the community when they are purchased by local residents.

When the land was cleared last year to make way for the Dollar General retail store on Middletown's Main Street, they reclaimed materials from the 100-year-old house on the property, which will be used in one form or another in the duo's work.

Although Morrissey did not say how much he has spent tearing down the barns and getting his business up and running, he did elude to the fact that it hasn't been cheap.

"I'm spending money to hopefully make money," he said.

And for him, the payout has been worth it:

"I love it. I can't picture myself doing anything else."

Article written by Erica M. Stocks, special to *The Winchester Star*, January 2012.



## Shenandoah University: Bartering at its best— Swap shop allows SU students and staff to exchange their goods for someone else's

### **Shenandoah University**

Private university relocated to Winchester in 1960; enrollment of approximately 4,000 students in 2011

Stacey Keenan, sustainability coordinator

### **Highlights:**

- Anticipated 40 percent reduction in printing costs to university through pay-toprint kiosks
- Expanding green space
- Daylight harvesters
- Occupancy sensors

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www.su.edu

WINCHESTER – Bring something, take something.

That's the motto of the new Shenandoah Salvage Co. – a swap shop that opened Monday in a small room in Cooley Hall on the Shenandoah University campus.

Freshman Katy Burke was one of the first customers to take advantage of the bartering system, which allows SU students and staff to freely exchange their goods for someone else's.



SU student crosses Abram's Creek.

After a few minutes of eyeing the assortment of goodies – including sunglasses, luggage, gloves, towels, canned beans, wrapping paper, movies and a yoga ball – Burke exchanged guitar strings, two T-shirts and jewelry for a 35mm camera.

"It's really cool," she said. "I've always wanted to barter without dealing with currency."

"It's all about trying to reduce what we consume and using what we already have."

- Stacey Keenan



The shop is the brainchild of SU sustainability coordinator Stacey Keenan, who saw it as a way to educate and inspire students and staff about being conscious consumers.

"It's all about trying to reduce what we consume and using what we already have," she said.

It's also about paying it forward.

"We're trying to help people out," she said.

Items exchanged do not need to be of equal value and it's not necessary that items be brought in. The store will also take plastic bags and broken items as long as they can be repaired. The only things it won't accept are perishable foods.

Excess items will be housed in a small storage area across from the shop.

Sophomore Zac Rogers never heard of a swap shop until SU introduced the one in Cooley Hall.

"You can take random stuff from your room and bring it here," he said. "You get rid of clutter and waste and

you don't need to go to the trash can every day."

The shop is open Monday and Friday from 2 to 5 p.m. and Tuesday and Thursday from 9 a.m. to noon. It is closed Wednesday.

The shop is a pilot program, whose fate will be decided in May. If





Shenandoah University student Brandi Abrams of Winchester looks over items in the swap shop.

successful, it will be moved to a larger location on campus.

However, according to freshman Victoria Thomas, who plans to bring her unwanted clothing to the store, the swap shop has a bright future.

"It's anything and everything," she said, of the shop's items. "I think it's going to pick up a lot of attention. I think it's the coolest idea ever."

Article written by Rebecca Layne, reporter for *The Winchester Star*, January 2012.



## For Berryville Graphics, recycling is just good business

### **Berryville Graphics Inc.**

Book Manufacturer founded in 1956; purchased in 1986 by Bertelsmann AG

Donald Crawford, purchasing manager

### **Highlights:**

- 96 percent of all paper and cardboard are recycled
- 10 tons of waste per month from plant
- lighting upgrades
- expanding recycling program to lunch area
- Forest Stewardship Council compliant
- planned expansion and renovation will add 86 jobs

### **Contact info:**

25 Jack Enders Blvd. P.O. Box 272, Berryville, VA 22611 (540) 955-2750 E-mail:info@bvgraphics.com www.bvgraphics.com BERRYVILLE – Tucked just outside of the Town of Berryville behind rows of aging apple trees pink with bloom in bucolic Clarke County is the county's leading recycler.

Donald Crawford, purchasing manager at Berryville Graphics, is quick to point out that although the plant's exceptional recycling efforts benefit the environment, economics are the motivator.



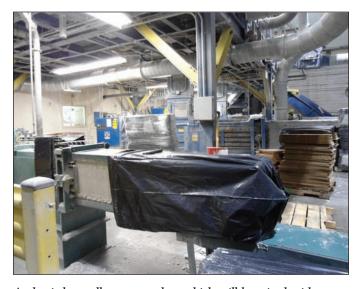
Berryville Graphics Inc. is headquartered in Clarke County.

Photo left: Paper bales await shipment to a recycler.



"Our goal is to recycle all that we can."

- Donald Crawford



A plastic bag collects paper dust which will be mixed with paper bales and recycled.

Berryville Graphics is in an enviable position. Its waste products – paper and aluminum scrap – are of value on the recycling market. The plant, which produces 120 million books each year, uses a broker to market its material, roughly estimated at tens of thousands of tons of processed paper and cardboard each year.

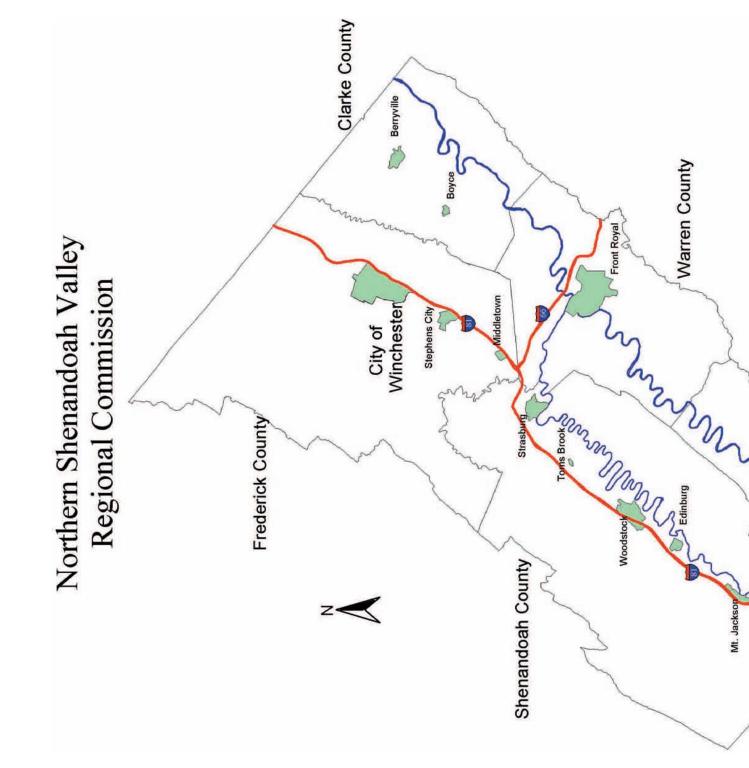
Photo left: Berryville Graphics recycles 96 percent of all waste paper and cardboard.

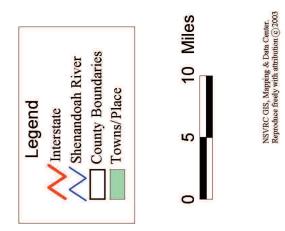


Donald Crawford, purchasing manager, highlights one of many paper collection bins on the manufacturing floor.

"Our goal is to recycle all we can," Crawford said. During book production, the book is glued and trimmed with the excess trimmed material evacuated through large ductworks to a cyclone which uses centrifugal force to prepare the paper for the baling process. Paper grades are kept separate in order to bring the highest rebate at market. Dust is even captured and injected back into bales. Once baled in the 5,700-square-foot baler room, the paper is loaded onto tractor-trailers and ready for pickup by the broker.

While the sale of paper and aluminum plates from its offset presses spearhead the company's environmental efforts, lighting upgrades have been made and the recycling culture is being extended from the plant to the employee lunchroom.







### Need information regarding waste diversion and recycling for your business?

Contact your program manager for guidance:

### **Clarke County**

Allison Teetor (540) 955-5134; ateetor@co.clarke.va.us

### **Frederick County**

Gloria M. Puffinburger (540) 665-5643 #1; gpuffinb@co.frederick.va.us

### **Page County**

Lynda L. Minke (540) 743-3854; Iminke@pagecounty.virginia.gov

### **Shenandoah County**

Brad Dellinger (540) 984-8573; bdellinger@shenandoahcountyva.us

### **Warren County**

Michael R. Berry (540) 636-1543; mberry@warrencountyva.net

### Winchester

Michael Neese (540) 667-1815 #1452; mneese@ci.winchester.va.us



### Earth Korps: Taming the high seas of the Shenandoah River

### **Earth Korps**

Nonprofit, chartered in 2010

Captain Beau Morgan, founder and president

### **Highlights:**

- 47,540 pounds of trash removed
- 17,630 pounds of recyclables
- 22,170 pounds of scrap metal
- 655 tires
- Shenandoah Riverside Festival benefits river conservation
- Monofilament recycling at popular fishing spots

### **Contact info:**

P.O. Box 93 Edinburg, VA 23824 (540) 335-8144 E-mail: Earthkorps@yahoo.com www.earthkorps.org EDINBURG – Imagine Captain Beau Morgan, an energetic young native of Edinburg plying the "high seas of the Shenandoah River," leading his trusted mates on a mission to seek out buried "treasure". Missions are not without risk of bodily harm. The armada consists of just four red canoes. Though small, their draft lends them perfectly to the task of navigating the Shenandoah's shallow waters.

This is not the plot of the latest pirate movie to hit theaters. This is reality. This is Captain Beau Morgan's reality.

Morgan is president and founder of the environmental nonprofit, Earth Korps, based in Edinburg. As an avid outdoorsman and admirer of the scenic beauty and recreational opportunities that the river has to offer, a sense of stewardship comes natural to Morgan. But the idea of Earth Korps actually came to him in a dream. One night he envisioned the potential of a large organization dedicated to making the world a better place. Morgan gathered together a few close friends who share his passion and set out to turn his dream into action.

"Some days I do it for pleasure; other days I'm on a mission."

- Captain Beau Morgan

Photo left: Burnshire Dam on the Shenandoah River in Woodstock





Captain Beau Morgan, president and founder of Earth Korps, along with a volunteer from Central High School gathered 700 pounds of debris during a recent Sunday morning cleanup just below Burnshire Dam on the Shenandoah River in Woodstock.

Earth Korps' mission is to restore and protect the river while expanding awareness about issues impacting the Shenandoah River. An immediate goal is to work in conjunction with The Nature Conservancy to remove car bodies along 100 yards of the river's edge. Decades ago, car bodies were stacked and cabled together along the river's shores for streambank stabilization.

"It's hard work. It's not for the faint of heart. . . . I do enjoy it."

- Captain Beau Morgan

Photo left: An island just below Burnshire Dam on the Shenandoah River was the setting of a cleanup effort by Earth Korps.

Morgan has yet to secure funding for this project and he readily admits that his long-term plan is to spend less time indoors writing grants and more time outside ankle deep in muck digging tires from the river's shores.

Morgan explained that snakes are always in great abundance, particularly inside of tires and barrels. Another common obstacle is rusted scrap metal submerged below the river's surface.

One of the group's biggest challenges is navigating the river itself. Few public access points exist on the North Fork, meaning that tires and other debris may be floated out for eight or nine miles. Earth Korps also coordinates with private property owners to use their access points as staging areas for debris which can then be hauled away by truck. Whenever possible, materials are recycled.

Earth Korps core team is supplemented by volunteers from other groups such as The Riverkeepers, Friends of the North Fork, Boy Scouts and local high schoolers. Primarily, however, he utilizes teens needing community service hours. This provides Morgan the opportunity to conduct his own sort of rehabilitation. Not only is the river better for it, but he has the chance to instill a love of the Shenandoah River into the hearts and minds of young people. After spending all day on the water, teens' attitudes seem to soften, Morgan explained. They generally bond with him because he is young and seem to respect what he has to share.

"It just changes their whole outlook. That's definitely one of the coolest parts of the job."



### Shenandoah National Park; Protecting and blending natural beauty and function

### **Shenandoah National Park**

U.S. National Park Service construction of Skyline Drive began in 1933.

Charles Newton, safety engineer

### **Highlights:**

- 39 percent recycling rate last year
- 302,887 pounds recycled last vear
- Purchase of three batterypowered vehicles
- Working to become a Climate Friendly Park
- Recycling program results in a cost avoidance of \$6,000 in landfill disposal fees each year

### **Contact info:**

3655 Hwy 211 East, Luray, VA 22835 (540) 999-3500 E-mail: charlie\_newton@nps.gov www.nps.gov/shen LURAY – The Shenandoah National Park's Green Team is seeking balance. It has expanded its recycling and waste diversion program, thus softening the human footprint on the park while continuing to provide amenities which attract thousands of visitors each year.

While a recycling program has been in place since the 1990s, it was not until a decade ago that the park developed an Integrated Solid Waste Alternatives Plan. Charles Newton, safety engineer and coordinator of the park's green initiatives, explained that it was then that the park looked at how to increase recycling and in turn reduce waste. In order to be economically viable, the numerous single containers scattered across campsites, picnics areas and lodges would have to be clustered for more cost-effective collection.

While recycling bottles and cans in a park setting seems like a natural fit, it was not without its challenges.

- Charles Newton

Photo left: Recycling containers at Dickey Ridge Visitor's Center along Skyline Drive





Recycling and refuse cluster at Elkwallow Picnic Grounds in Shenandoah National Park

While recycling bottles and cans in a park setting seems like a natural fit, it was not without its challenges. Newton explained that it took several years to resolve the issue of appearance and secure funding. Secondly, the containers must be bear-proof. Each comes with a latch that locks tight, but allows visitors to pop the containers open. Contamination or the mixing of trash with recyclables can be a problem.

Photo left: Charles Newton shows off the park's steel recycling containers which are being placed throughout the grounds as funds are available. The units are handicap accessible, bear proof, durable and easy to service for park personnel.

Steel, brown banks of recycling containers are now available for the collection of recyclables. Units are grouped next to refuse containers and both are serviced by park staff.

Loads are hauled from individual collection points to the park headquarters lot. Material is held in collection bins and hauled to a recycler when a truckload is accumulated. Any rebates received are reinvested in the program through the purchase of containers and equipment. This year, a cardboard baler was secured, reducing staff time spent managing old corrugated cardboard.



Extending the recycling program to park visitors builds on a long tradition of sustainable practices at the park.

Asphalt and concrete from construction projects is reused as road base whenever possible. Tree trimmings are chipped and placed on trails or blown out into the woods. Even wood ashes from campsites are used as a soil amendment -82,500 pounds last year. Combine this with diversion efforts in the auto shop such as scrap metal recycling and the re-refining of



Above: A sign lets visitors know where they can recycle. Photo left: Charles Newton, safety engineer for Shenandoah National Park, has led the way for the park's green initiatives. Here he displays one of the park's environmentally-friendly GEM electric utility vehicles which are replacing fuel-driven golf carts. The vehicles are used to deliver items such as mail and equipment parts.



Paper and other recyclables are consolidated at the park's maintenance headquarters before being transported to market.

automotive fluids. Re-refined oil and reconditioned antifreeze are both used in the park fleet.

But recycling is just part of the Green Team's mission. Consisting of representatives from across the park service, energy usage is a prime concern in facilities and fleet vehicles. In general, fuel is a challenge, Newton said, particularly during snowy winters and snow removal. The park service has replaced three fuel-driven golf carts with Global Electric Motorcars (GEM) utility vehicles. While the battery-powered GEM costs about \$10,000, significantly more than a traditional golf cart, its truck battery can be recharged overnight via a 110 volt plug. Its noise-free top speed of 30 mph makes it perfect for delivering mail and tools at park headquarters.



## Interbake Foods: A recipe for recycling success

### **Interbake Foods**

Front Royal plant opened in 2006

Don Gronczewski, Safety/ Environmental Manager

### **Highlights:**

- 98 percent diversion rate
- 5,251 tons recycled during 2011
- all new employees receive safety and environmental training; annual refresher courses
- corporate environmental audits

### **Contact info:**

200 Baker Plaza Front Royal, VA 22630 (540) 631-8100

E-mail:

dgronczewski@interbake.com www.interbake.com WARREN COUNTY — Hundreds of thousands of golden Ritz crackers and chocolate ice cream wafers whizz along Interbake Food's six manufacturing lines nearly every day of the year. Even more noticeable than the aroma of sugar and flavorings in the air is the prominence of the plant's recycling and waste diversion program. There is a beneficial use for practically everything, even the occasional cracker that happens to fall from the belt before reaching its home in a plastic tray destined for the Kraft Foods Inc. plant in Winchester.

Don Gronczewski, safety/environmental manager and an OSHA



Above: Don Gronczewski, safety/environmental manager at Interbake Foods, stands next to one of the many yellow carts used to collect solid food waste which is then sold as animal feed.

Photo left: Wooden pallets ready to be loaded onto the recycling trailer.



outreach instructor, has been employed by Interbake for 17 years, the last six at the Front Royal plant, transferring after the New Jersey (and Richmond) plants were shuttered. The local operation boasts 300 employees, 100 of which are contracted workers who hand pack some products. Gronczewski explained that initially the company focused on start-up operations, diverting mainly basic items such as scrap metals and wooden pallets. Eventually, a baler was installed and Interbake began selling its cardboard. Last year, it recycled 471,657 pounds or 236 tons of cardboard.

"Do we do it for the money? Absolutely not."

- Don Gronczewski

A second baler has been added allowing Interbake the flexibility to bale and market its plastics. Plastic trays, shrink wrap, and strapping – even broken plastic tabs from the conveyors – are sorted on the floor by employees and then baled.

The recycling and diversion program now includes metal, cardboard, plastics, liquid food wastes such as vegetable oil; universal waste including batteries and light bulbs; electronic waste; used motor oil and used antifreeze. The Front Royal plant's efforts recently earned it a score of 94 on its environmental audit conducted by the corporate offices! Last year the plant recycled 5,251 tons of materials.

Perhaps the most unique item diverted at the plant is solid food waste. This may take the form of dough,



Above: A new bale of shrink wrap weighing 1,300 pounds will be hauled away for recycling with other commodities such as plastic, cardboard and pallets.

Photo left: Plastic cracker trays and strapping are collected for recycling on the plant floor. Separating the materials brings a better price at market.

salt, flour, broken wafers or crackers or items that have fallen onto the plant floor. All food waste is collected in yellow bins, compacted and sold as animal feed, keeping it out of area landfills. This accounted for 4,409 tons of material last year. Although the tonnage seems high, it is well within production expectations for a bakery operating five to six days a week, Gronczewski said. Wafers coming off the line out of specifications or misshapen are re-ground and placed back into the mixing process, reducing waste.

The company receives a rebate through its materials broker for all items recycled. However, Gronczewski explained that the money earned through recycling is not the driving force behind the program. Sustainability is part of the corporate culture at Interbake and it is his mission to educate employees about its vital role in daily operations.



Recyclers located in the Northern Shenandoah Valley. This listing is non-inclusive and provided for informational purposes only in order to promote recycling and waste diversion. Please note that other recyclers service the NSV.

Auto Recyclers LLC - (540) 545-4197 Battery Mart - (800)405-2121 Blue Bird Recycling - (540) 409-4370 C2 Management - (540) 955-5740 G & G Auto Recycling - (800) 368-0854 Gooney Creek Salvage - (540) 636-6256 Maxwell Trading Inc. - (540) 877-1800 Pallet Recycling - (540) 465-3113 REMAC Metals - (800) 600-9608 Secure Shred - (540) 535-0430 Southern Scrap/Williams Recycling - (540) 662-0265 TrueShred - (540) 868-9480 Winchester Scrap Metal Inc. (540) 667-8440 Zuckerman Co. Inc. - (540) 667-6000

Zuckerman Metals Inc. - (540) 635-2105



### **Useful websites:**

Virginia Recycling Association, www.vrarecycles.org. Click on the Recycling Directory for assistance in locating markets for your materials.

### Virginia Department of **Environmental Quality,**

www.deg.state.va.us; Information ranging from Virginia Green Tourism, Virginia's Environmental Excellence Program, pollution prevention, energy conservation and the proper management of hazardous materials. Also find a link to the publication Virginia's Manual on the Business of Recycling.

U.S. Environmental Protection **Agency,** www.epa.gov. Includes a wealth of information on topics such as green construction, construction and demolition debris recycling and construction site recycling programs. Look for the

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Greening the Valley is directed toward the business and industrial sector as a means to share recycling, waste reduction and conservation successes. It is hoped that entities across the Northern Shenandoah Valley Regional Planning District will be inspired to expand their own green initiatives.

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