

1995-1996 ANNUAL REPORT

# Robinso Kapart

# A Closer Look at the GLRA

The Greater Lebanon Refuse Authority (GLRA) was formed under the guidance of the Regional Planning Commission in 1959. It is comprised of one representative from each of the County's twenty-six (26) municipalities.

The GLRA is committed to managing a comprehensive solid waste management system in accordance with the 1990 Lebanon County Solid Waste Management Plan. The GLRA operates the facility in a manner that protects the health and safety of Lebanon County residents and the quality of the environment.

The facility accepts an average of 250 tons of regulated municipal solid waste from Lebanon County each day.

The Annual Refuse Report provides readers with an in-depth look at landfill operations, GLRA activities, recycling information, and plans for solid waste management in the future. If you are interested in touring the GLRA facilities, contact Amy Herda, Recycling Coordinator, at 867-5790 Ext 307.

## Commemoration to Franklin Z. Meiser

Although the Greater Lebanon Refuse Authority may have lost one of its most dedicated founders, Franklin Z. Meiser's vision, passion, ideas and committment will continue to provide a basis for solid waste management practices in Lebanon County for many years to come.

Franklin Z. Meiser recognized early on that in order to implement a successful solid waste management plan it must be coupled with a committment to recycling. Mr. Meiser upheld the belief that Lebanon County's solid waste must be managed in a well-run and highly-organized manner. He strongly believed that the Authority should support and advocate for a comprehensive recycling program.

As a result of his vision and leadership, the Greater Lebanon Refuse Authority successfully operates a state of the art solid waste management facility, not to mention the fact that recycling initiatives have dramatically increased throughout all of Lebanon County.

The Greater Lebanon Refuse Authority continues to provide essential services to the people of Lebanon County - the environmentally safe, reliable and efficient disposal of nonhazardous solid waste and the regulation of septic waste disposal.

The GLRA also continues to move forward with its committment to provide recycling assistance, public education and the constant assessment of the recycling needs of Lebanon County as part of its recycling efforts.

Though Franklin Z. Meiser may be gone, his motivations and aspirations will continue to be a significant part of solid waste management practices and recycling initiatives in Lebanon County for many years to come.

James W. Cantrell, Jr. Chairman

James Wantell Se.



Not only is the GLRA home to Lebanon County's refuse, but to abundant wilflife as well.

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GLRA STAFF
• EXECUTIVE DIRECTOR

Michael D. Pavelek II

LANDFILL SUPERINTENDENT
Terry L. Mauser

 ASSISTANT LANDFILL SUPERINT Jeffrey R. Witmeyer

• ENGINEERS
Lawrence D. Taylor
Jonathan R. Beers

 RECYCLING COORDINATOR Amy M. Herda

SOLICITOR
 Weiss Weiss & Weiss

# Of Composting and Recycling Landfills

The GLRA opened a new fifteen acre state of the art double lined landfill cell in 1991. Today that cell has been filled by about half a million tons of Lebanon County garbage. During 1995 the GLRA opened a second state of the art doubled lined landfill cell.

Unlike the original double lined cell, this cell is designed to recirculate leachate, add nitrogen, compost the garbage and generate soil which can be used in future landfill cells as daily or intermediate cover. In addition, the cell was designed with the intent for reuse after composting was complete and soils had been removed, saving the cost of the land, engineering and construction of a new landfill. Currently, there is no "certified" useful life for a landfill liner and this must be resolved to determine the extent of site reuse or recycling.

To successfully compost, a source of nitrogen must be added to the wastes that are disposed of in the landfill. The GLRA has obtained permit approval to accept sewage treatment sludge, which is high in nitrogen content, from Lebanon County waste water treatment facilities. Disposing sewage sludge in the landfill will achieve the appropriate nitrogen to carbon ratio for effective composting in the landfill.

Using the soils generated through composting, landfills will require that the soils possess favorable characteristics, such as low odor, few contaminants and particle sizes within specifications for daily or intermediate cover, so that the Department of Environmental Protection will issue a permit modification for this application.

The single most difficult aspect of this initiative is to keep materials which do not compost or readily decompose out of the landfill. Examples of such items are tires, appliances, plastic containers, glass containers and large metal objects. This is where recycling comes in to the picture.

With your support and the outstanding efforts of the local refuse removal and recycling services, the GLRA has attempted to remove recyclable glass, metal and plastic food and beverage containers from the landfill through recycling programs and the establishment of recycling drop-off centers throughout Lebanon County. Together we are making reasonable progress and encourage you to keep up the good work.

Michael D. Pavelek II

**Executive Director** 

#### 1996 Fee Schedule

Tipping fees at the GLRA are as follows:

\$56.31 per ton \$18.77 minimum fee (up to 660 pounds)

The GLRA accepts ONLY the following wastes:

Residential Waste
Commercial/Industrial Waste
Construction & Demolition Debris
Type "S" Residual Waste

Green Waste fees are as follows: \$22.50 per ton \$7.50 minimum fee (up to 660 pounds)

Green waste includes the following materials:

Leaves • Grass Clippings • Tree Trimmings • Garden Residue • Shrubbery • Branches and Limbs (less than 4 inches diameter) •

NO plastic bags, rocks, treated or painted wood, tree stumps or trunks.

#### Mirror...On the Wall

Each and every one of us would like an opportunity to gaze develop this plan, an "Advisory Committee" was formed utilizstruction based on a detailed construction schedule. One of private sector waste haulers, and the Conservation District. in the German highway system. As a standard practice bridges grants from the State Department of Environmental Protecwere built far ahead of the actual road construction. Therefore tion. it was not unusual to see a brand new bridge in the middle of a pasture, with no road in sight. The GLRA, as a responsible Currently the Advisory Committee is in the planning process agement Planning".

Planning, Recycling and Waste Reduction Act", signed by Gov- approval. ernor Casey in July of 1988. As a result of that process, an sponsibility of implementing the details of the July 1990 County asked by audiences everywhere is "How much capacity is left?" Plan. Although written as a ten year plan, all of the goals. The simple answer is about twenty years, with present science within the plan have been accomplished. Currently efforts are and technology and present disposal rates. While it is true that only the changing state and federal regulations, but changing and technology. At present, a lot of attention is being placed technology as well.

for the near future, efforts will be made to initiate mid and long compost?" range plans as well. The process is intended to be the blueprint for future revisions. The goal of the project is to provide the While the answers are not clear, the fact that the questions are the potential cost, as well as the potential benefits for the citient by the time it reaches the crossing point. zens of Lebanon County. To oversee the GLRA staff as they

into the future to see what it will bring. How many of us plan ing members of the Development Relations Committee from for it? A responsible business will develop it's corporate dreams the Board of Authority, and volunteers from Lebanon Valley in the form of a business plan. A contractor will manage con- College, the business community, the Chamber of Commerce, the best examples of construction planning graphically visible is Funds for the process have been received in the form of matching

organization, strives to achieve the same level of organization of investigating existing technology and it's possible applicabiland planning noted in the previous examples, and is in the ity to Lebanon County. Once the options are known, the process of doing just that as part of a revision to "Waste Man- potential costs will be compared to the potential benefits, and recommendations will be made in a final report. This report will be circulated to various county agencies for approval, and "Waste Management Planning" was first mandated by the State will be made available for public comment. Once this process to the County as a result of Act 101, the "Municipal Waste is complete it will then be forwarded to the State for final

agreement was signed by the Lebanon County Commissioners Central to any planning process is the question of how necesand the GLRA delegating to the GLRA the authority and re- sary is it? While we believe that it is vital, the real question underway to revise and update that document to reflect not populations grow, this in general is offset by recycling efforts on waste disposal technology and many questions are being asked: "Can a landfill be a bioreactor?"; "Can a landfill be In addition to planning potential, new facilities and direction recycled?"; "Can trash become a resource yielding energy and

framework to accomplish detailed planning and wise use of ex- being asked bodes well for all of us. The GLRA, with a proisting resources. Our vision is to plan and build the bridges gressive, proactive approach, is keeping an eye towards the today for the roads of the future. This happens only by inves- future to take advantage of technology as it develops. While tigating as many possibilities now as practical, and determining we may build the bridge today, the road may look much differ-

Larry D. Taylor, PE - Engineer

#### Fire At The Convenience Center

A potential disaster was averted when a cash customer deposited a burning barrel at the GLRA convenience center. The garbage in the roll-off container caught fire and smoke was reported by an alert K & W driver. The material burned fiercely until doused with water approximately three minutes after being reported. The only damage was to the paint on the container.

This type of fire could happen in a garbage truck or on the landfill, where the consequences of the fire could have been very serious.

Help avoid trash truck or landfill fires. Please make sure all ashes are cold and stirred before depositing them in the dumpster, the convenience center or the landfill.



#### Staff News

During 1995 the GLRA was highlighted with numerous achievements in employee development.

The GLRA welcomed aboard four new employees: Phillip Binkley, Laborer; Amy Herda, Recycling Coordinator; Marlin Houser, Recycling Attendant; and Aaron Hanley, Laborer.

Ernest Daub successfully completed training which grants him a permit from the Pennsylvania Department of Environmental Protection (DEP) to operate the GLRA Pre-Treatment Facility.

Jeffrey Lutz was named Foreman/Equipment Operator in November 1995.

Roger Johnson and William Miller were promoted to Laborer/Truck Driver positions. Phillip Binkley and Wayne Webber were promoted to Laborer/Temporary Truck Driver positions.

Michael Pavelek, Executive Director, received a patent for a roadway constructed from recycled shingles in late 1995. The patent has been assigned to the GLRA and will be used to improve the efficiency of the GLRA's waste management system.

The Administrative and Supervisory Staff participated in various programs, seminars and initiatives contributing to the efficiency of the GLRA's daily operations.

Tammy DuPree, Weighmaster; Sheila Evans, Administrative Assistant; Rose Marinkov, Clerk/Weighmaster; Stacie Mauser, Clerk/Weighmaster; and Linda Wolford, Administrative Assistant, completed the Word for Windows Seminar in June 1995 enhancing the computer capabilities of the GLRA.

Sheila Evans, Administrative Assistant, and Florence Wolfe, Accounting Coordinator, attended a seminar on Worker's Compensation Benefits and Cost Reduction providing an educational outlook on how to reduce overall costs.

Tammy DuPree, Weighmaster, participated in the Leadership and Supervisory Skills for Women Continuing Education Course.

Rose Marinkov, Clerk/Weighmaster, completed training in Aldus PageMaker, a desktop publishing program, in order to assist in the preparation of GLRA publications.

Stacie Mauser, Clerk/Weighmaster, developed a records management system for septage wastes resulting in a more user-friendly system and also requiring less paperwork for the septage haulers.

Linda Wolford, Administrative Assistant, was recognized for her contributions to the community by the Lebanon County Chapter of the Literacy Volunteers of America. Ms. Wolford also successfully coordinated the installation of the new SSI Standardized Scale Program utilized by the GLRA Facility.

Charles McCarty, Jr., Mechanic/Equipment Operator, completed training in the application and troubleshooting of hydraulic pumps.

Jeffrey Witmeyer, Assistant Superintendent, and Terry Mauser, Superintendent, completed seminars on Employee Attitude Problems, Workplace Violence and How to Manage Anger, Conflict and Emotion.

The Engineering Staff also accomplished notable achievements in 1995.

Larry Taylor successfully completed the Pad 2 and Pad 3 Certification.

Jonathan Beers was key in the preparation of the contract documents, the construction and the construction management of Pad 2 and Pad 3 of the GLRA's expansion.

It is through the combined efforts of all the employees that the GLRA is a state of the art landfill. Their hard work, pride and dedication makes the Greater Lebanon Refuse Authority what it is today.

# GLRA Holds Annual Employee Recognition Meeting

On Friday, December 22, 1995, the GLRA held its Annual Employee Recognition Meeting. Many GLRA staff and employees were commended for their performance throughout the year at the annual luncheon held in the GLRA Maintenance Facility.

Jeffrey Lutz was named Employee of the Year for the second year in a row.

Other nominees included:

Robert Adley
Jonathan Beers
Ernest Daub
Sheila Evans
Rose Marinkov
Stacie Mauser
Charles McCarty
Linda Wolford

Longevity Awards were presented to:

Florence Wolfe - Twenty Years of Service Ernest Daub - Five Years of Service Tammy DuPree - Five Years of Service

Plaques were presented to:

Terry Mauser and Jeffrey Witmeyer in recognition for their outstanding performance in operations and budget for the past four consecutive years.

Jonathan Beers in recognition for his outstanding cooperation with co-workers and technical support.

Safety awards were presented to many GLRA staff and employees based on individual performance during the past year.

The meeting closed with the presentation of a ham, turkey or fruit basket to each GLRA staff member and employee provided by the Board of Authority.



### GLRA Hosts Hot Dogs and Hayrides

As summer entered its final stages and landfill construction neared completion, the GLRA kicked back for an evening of food and fun. Nearly 120 people consisting of members of local government, GLRA staff, employees, family and friends gathered at the GLRA facilities on Tuesday, September 5, 1995.

The event was offered as an educational opportunity to tour the expansion and completion of two newly constructed landfill sites, Pads 2 and 3.

The evening's festivities began with a picnic outside the GLRA maintenance building and was followed by hay wagon tours of the GLRA facilities. The tours provided an opportunity for the GLRA to share with the public its expansion, the natural leachate treatment system and the Saving & Convenience Center.



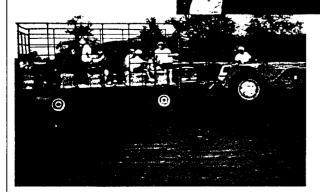
Pictured Left: Jeffrey Witmeyer, Assistant Superintendent, prepares hot dogs for the picnic.

Pictured Right: Tom McDowell, Vice Chairman, and Jim Cantrell, Chairman, ring the dinner bell to commence the evening's festivities.



Pictured Below: Guests, inside the GLRA maintenance building, enjoy their evening of food and fun.

Pictured Above Center: Outside the maintenance building, guests gather around the grill for hot dogs.



Pictured Above: Amy Herda, County Recycling Coordinator, and Linda Wolford, Administrative Assistant, provided well informed guided tours.

Pictured Left: The hay wagons, provided by neighboring farmers, Alex Hawryluk and Richard Weaver, were used for the landfill tours.



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# Let's Talk Trash...

• GLRA Hours of Operation:

Monday - Friday 7:00 A.M. to 4:30 P.M.

Saturday 7:00 A.M. to 12:00 P.M.

- All GLRA customers must have a valid permit. Cash permits cost \$5.00 per year. Charge accounts are \$25.00 per year. Permits can be obtained at the scale house after providing the following forms of identification: drivers license, vehicle insurance and registration information.
- Please allow enough time to unload vehicle by closing time.
- In the event the landfill must close due to severe weather, listen to local radio stations for announcements.
- No advanced warning may be given to closing the facility for a short time due to localized lightning or electrical storms.
- All open loads of municipal solid waste must be tarped.
- During 1996, the GLRA will be closed or close early on the following holidays:

New Year's Day - January 1
Memorial Day - May 27
Independence Day - July 4
Labor Day - September 2
Thanksgiving Day - November 28
Christmas Day - December 25
Annual Employee Recognition Meeting
December 24 - Close at 1:00 P.M.
New Years Eve
December 31 - Close at 3:00 P.M.

 The following types of waste are UNAC-CEPTABLE for disposal at the GLRA facility:

Tires
Explosives
Liquid Waste
Hazardous Waste
Radioactive Waste
Chemotherapeutic Waste
Household Hazardous Waste
Infectious/Pathological Waste
Out-of-County Waste

# Requirements for a Septic Hauler

In 1992 the GLRA took on the responsibility of regulating, tracking, and enforcing regulations for Septic Sludge Haulers operating within Lebanon County. Collection of municipal waste within Lebanon County requires a license/permit as mandated under Ordinance 15 and Act 101 which was passed in July of 1988. The GLRA implements these such requirements in their rules and regulations.

There are twenty septic haulers permitted with the GLRA. Only those permitted may collect and transport septic sludge within Lebanon County. To obtain this permit each septic hauler is required by GLRA rules and regulations to supply proof of vehicle liability insurance, worker's compensation insurance, and also pay a permit fee of twenty-five dollars (per vehicle/per year).

Each septic hauler is required to fill out a manifest (supplied by the GLRA) for every load of septic that is picked up in Lebanon County. A manifest is a form which supplies the following documented information: the date, the municipality from which the septic was collected, the resident/business address, and the Pennsylvania Department of Environmental Protection (DEP) permitted waste water treatment facility or field to which it was taken. Septic Haulers are required to send these manifests to the GLRA quarterly. The GLRA records the manifests by the municipality, month, and the number of gallons pumped. The GLRA provides this information to Lebanon County Planning.

All of these rules and regulations are enforced to prohibit the deposition of septic onto unpermitted fields. Septic waste must be taken to waste water treatment facilities or fields that have been permitted by the Pennsylvania Department of Environmental Protection (DEP). Regulating and monitoring septic waste activity helps determine a need for additional capacity at sewage treatment plants within Lebanon County and prevents unauthorized disposal.

The GLRA is seeking feedback from septic haulers to make our programs more efficient for the haulers. Please contact Stacie Mauser at Ext. 318 with suggestions or comments.



**GREATER LEBANON REFUSE AUTHORITY** 

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GLRA

96

Refuse Report
1995-1996

# Landfill Leachate . . . What Is It? What Do We Do With It?

Refuse that is placed in the landfill from households, outdoor collection bins, restaurants, industries and commercial businesses contains a considerable amount of moisture; especially during the spring when refuse collection containers are setting in the rain and melting snow. This liquid that is delivered to the landfill with the refuse is called leachate and must be captured and treated before being discharged into the environment. In fact, any water which comes in contact with refuse is considered leachate.

Leachate contains numerous chemical compounds and elements from Arsenic to Zinc. The most detrimental are the heavy metals such as mercury, lead, and iron. These compounds and elements are part of our everyday society in the foods we eat, the products we use, and the clothes we wear. When we concentrate ail of the products into one place and add water, the concentrations are a little too much to discharge into a stream.

To capture the leachate, the bottom of the new landfill at the GLRA is constructed of two layers of a High Density Polyethylene liner material. The liners are about as thick as a nickel and are fairly flexible to conform to the shape of the excavated area which forms the landfill base. The liner system at the bottom of the landfill consists of several geosynthetic materials which protect the liners from punctures and leaks. The liner system is extremely impervious, chemical resistant and non-biodegradable.

The landfill base is a bowl-shaped excavation with the floor sloped toward a sump area. The leachate is pumped out of the sump, using Gorman-Rupp self priming pumps, and into concrete and steel holding tanks. The leachate is ultimately pumped into the City of Lebanon's Waste Water Treatment Facility for processing via the North Lebanon Township sewer system.

The GLRA upgraded its leachate conveyance system during 1995 with new underground piping, pumps, valve vaults, electronic controls, alarms, and electrical service. The revised system allows for a more

flexible use of the leachate pumping and storage system. The GLRA has tank storage capacity for nearly one and a half million gallons of leachate.

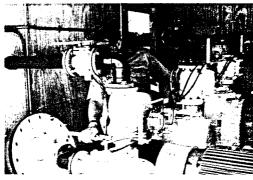
All rain water which falls on the active land-fill becomes leachate. During heavy rains and melting snow, the landfill can produce over one million gallons of leachate from its 20 acre active landfill. The turbine type pumps that transfer the leachate to North Lebanon Township can pump, at the maximum, 140 gallons per minute, which is about one fifth of the rate the leachate is being pumped out of the landfill. It is during these events when the tank storage volume is vital.

With the construction of 1995, several new truck couplings were added at the pump stations to give the GLRA greater capacity to fill tank trucks and haul leachate to the City of Lebanon's Waste Water Treatment Plant when the leachate flow is too great or when there is a problem with the local sewer system. In addition, a backup waste water treatment facility has been designated.

In 1991, when the new landfill was initially being constructed, the GLRA was required to construct a pretreatment plant at the landfill to pretreat the leachate to levels which could be readily handled by the City of Lebanon Waste Water Treatment Plant. At the time it was the only option in order to receive a landfill disposal permit from the Pennsylvania Department of Environmental Resources. The GLRA was under a short time schedule to receive their permit and open the new facilities before their capacity in the old permitted landfill expired. Since the landfill opened in 1991, the GLRA has explored other options of leachate disposal.

The GLRA pretreatment plant is currently inactive since the leachate does not require pretreatment. The plant is available on short notice if leachate concentrations reach levels which require pretreatment. The GLRA's aquatic treatment ponds are used to treat leachate from the old landfills used since 1957.

Jonathan R. Beers, PE - Engineer



These new Gorman-Rupp pumps, located inside a leachate pump station adjacent to the active landfill, are used to pump leachate out of the landfill to the leachate storage tanks. Each pump station has two 15 horsepower primary pumps (located in the back), and one 10/2.5 horsepower two speed decant pump. The decant pump is used to pump leachate from the leak detection zone between the two landfill liners. The primary pumps operate at over 300 gallons per minute to move the leachate into the tanks.



The small pump station buildings, located in the middle right side of the picture, pump leachate out of the active landfill to the leachate storage tanks to the left. The two tanks shown, combined with a tank hidden behind these tanks, can store about 1.5 million gallons of leachate. The GLRA landfill facility is nestled in the rolling hillsides of North Lebanon and North Annville Townships.



Work was progressing on installing a leachate pipe into the top of this one million gallon leachate storage tank. Pump stations and valve vault buildings are shown on the left which are used to control leachate being pumped to various tanks, truck couplings, and other pump stations throughout the GLRA landfill facilities. The leachate stored in this tank is pumped to the Lebanon City Waste Water Treatment Plant via the North Lebanon Township sewer system.



# Recycling in Lebanon County ... A Success Story

Recycling...Everyone is doing it...There's no excuse not to...The opportunities are out there---programs from curbside to drop-off in all shapes and sizes---one that is just right for you. All that is needed is a little extra effort, some initiative and a commitment to recycling.

Let's take a trip down memory lane...In 1990 Lebanon County recycled only 3% of its waste stream. It was also at this time that every recycling drop-off facility in Lebanon County was shut down. The drop-off facilities were used as dumping grounds for trash and other household refuse. The future of recycling in Lebanon County looked extremely grim...

Yet Lebanon County residents weren't about to give up that easily. Residents were determined to make "recycling work" for Lebanon County. And that's just what residents did with the help of the haulers and municipal officials. Five years, thirteen municipal curbside programs and seven recycling drop-off centers later, Lebanon County recycles 33% of its waste.

Lebanon County recycles more than 40,000 tons of waste each year. This reduces the unnecessary use of landfill space, saves the cost of disposal and reuses valuable natural resources. Through Act 101, the Municipal Waste Planning, Recycling and Waste Reduction Act, Lebanon County is required to oversee waste reduction, reuse and recycling.

Reducing the Quantity of Waste Produced. For example, packaging can be designed to use less material, to be recyclable and to contain fewer hazardous chemicals. We can encourage redesign of packaging by selective shopping and by expressing our views as consumers to retailers, industry and government.

Reusing Items. Soda bottles, old furniture, clothes, tires, appliances and automobiles or their parts, industrial shipping containers (barrels, pallets, cardboard boxes) and many more items can be reused.

Recycling. Recycled newspaper can be made into newsprint, paper bags, egg cartons, animal bedding and cardboard. Glass and aluminum food and beverage containers can be made into new containers. Plastic soda bottles, milk jugs, and detergent bottles can be made into carpet, clothing, plastic lumber and other storage containers.

RECYCLABLE BIRD REUSABLE

Composting Green Waste. Leaves, shrubs, tree trimmings, grass clippings and branches can be collected, shredded, and composted into mulch. This year Lebanon County offered a Christmas tree recycling program. Over 65 tons of Christmas trees were successfully collected and diverted from the waste stream. Lebanon County processes over 1000

tons of green waste annually. Residents of the county have the opportunity to obtain the finished product at a very low cost.

Compost Organic Wastes. Home composting can reduce up to 30% of the waste produced by an average household in one day. Backyard composting is becoming a popular trend in Lebanon County. Composters, offered at a reduced cost, continue to be distributed to interested residents. Residents of Lebanon County are realizing that composting produces a valuable reward; humus, a rich soil amendment which improves the fertility, the quality and the texture of the soil.

As a last resort, landfill nonrecoverable items. Lebanon County will always need a landfill, or some alternative to manage Lebanon County's solid waste. Yet the life expectancy of the existing landfill can be dramatically extended through waste reduction, reuse, recycling and composting.

Recycling programs in Lebanon County are expanding to accept a wider range of recyclable materials. Municipalities who are not mandated to recycle are volunteering to host recycling drop-off locations. Refuse haulers are considering curbside recycling programs in unmandated municipalities on scheduled refuse collection routes.

The objective of solid waste management in Lebanon County is to provide the most efficient, economical and environmentally sound methods of waste disposal coupled with a commitment to recycling. Due to the cooperative efforts of county and municipal officials, the licensed haulers and the residents, recycling is a success story in Lebanon County.

Articles in this edition of the Refuse Report were provided by GLRA Staff. We welcome any questions or comments. Please contact the GLRA at 867-5790.

Amy M. Herda, Editor
 Rose M. Marinkov, Assistant Editor