

**SUP07-6: Shenandoah Waste Services, LLC**  
Special Use Permit Application  
for  
A Materials Recovery Center in a M1 (Industrial) Zoning District

**Location and Proposed Use**

The subject 33.76 acre parcel (Tax Map # 42A5 (A) 79) is located on the north side of Stoney Brook Lane and south of U.S. Route 211. The site is north of EMCO Enterprises' manufacturing facility.

The applicant, Shenandoah Waste Services, LLC, is seeking a special use permit in order to operate on a portion of the site. In an M1 (Industrial) zoning district all uses require a special use permit. Presently the parcel is undeveloped.

The subject parcel is owned by the County of Page, Virginia. If the applicant's special use permit application is approved, the County intends to divide and sell approximately 10 acres to the applicant. The residual acreage (approximately 23 acres) will be retained by the County. (see attached map)

Presently Shenandoah Waste Services operates on a site located in Page County and has 11 full-time employees.

**Background: Materials Recovery Centers/Facilities**

*The Information below was provided to Town Staff by Mr. Jody Salyard of Shenandoah Waste Services.*

*Currently there are over 400 materials recovery centers or materials reclamation facilities (MRF), operating in the United States. Some of these facilities began operating in response to environmental regulations. For instance, the state of California mandates that 50 percent of all "waste streams" be sent to such facilities; but most MRF are necessary due to a lack of landfill space and simple economics.*

*For instance, construction and demolition debris often contains bulky and heavy materials which can burden local landfills. Recovering and recycling such debris saves needed landfill space, and at the same time creates economic opportunities. Presently Virginia has only 8 years of landfill space left for construction debris, thus increasing the need for recovery facilities.*

*The main drivers of the industry are the consumers. American consumers are increasingly demanding "green" products. For example, since early 2005 the home building industry in the Shenandoah Valley has seen a 35 percent decrease in new home construction; but this only applies to homes built by conventional standards. Developers who construct "green" built homes have actually seen increases in demand over this same time period. The practice of recycling construction waste materials is a key component of the green building concept.*

*These practices are both supported and promoted by both the Environmental Protection Agency and the Virginia Department of Environmental Quality.*

*Shenandoah Waste Services provides its customers with a service that is available 24 hours a day and 365 days per year with no tolerance for failure. Last year Shenandoah Waste Services transported 76,468 tons of material which equates to over 4,300 loads of material, with an on time rate of 99.86 percent. Shenandoah Waste Services currently operates over 130 pieces of equipment in the mid-Atlantic region with the majority of business being the disposal and sale of waste wood fiber which is operated through JP Salyards Company, LLC., which handles the sale of wood fiber.*

*Shenandoah Waste Services, LLC provides a recycling alternate for construction debris; therefore diverting this waste stream from local landfills. By recycling over 95 percent of all construction debris that is receives, Shenandoah Waste Services is at the forefront of both landfill preservation and green building practices. Recycling such debris fulfills several critical needs. These needs are as follows:*

- 1. It gives both the construction and manufacturing industries a feasible and cost effective alternative to land filling their waste.*
- 2. Prevents the accelerated precipitation of landfill leachate. (Leachate is the liquid produced when water percolates through any permeable material.)*
- 3. Extends the life of landfills.*
- 4. Reduces greenhouse gases.*
- 5. Provides valuable biomass and recyclable revenue streams.*

*One of the most attractive aspects of the business is that it is projected to attain a strong cash position and achieve profitability within the first year of operation. Due to a large need for these products and services - and a lack of direct competition - Shenandoah Waste Services projects that profitability will be quickly achieved.*

**Short Term Objectives**

- 1. Sales approaching \$3 million for the first twelve months of operations and growing each year thereafter.*
- 2. Establish a permanent centralized sorting facility in 2007.*
- 3. Open additional facilities in 2009 and 2010 to serve other areas of the state and the Mid-Atlantic region.*

4. *Provide job growth in 2007 with a minimum of 20 employees; maximum employment growth to 80 by 2009.*
5. *Continued marketing of our products and services.*

### **Mission Statement**

*“Shenandoah Waste Services, LLC mission is threefold. Our first responsibility is to ensure the financial well being of our business. Second, is to provide industries with an economical alternative for the disposal of construction debris and wood waste. Third, is to provide quality recycled materials to industry.”*

### **Process Overview**

*Materials from industry and construction are received at the materials recovery facility (e.g. reject doors for Emco, Masonite, Merrilat, or construction debris from builders). The materials are first rough sorted by type due to their major composition; for example: wood, metal, plastic, cardboard, concrete, etc.*

*Once initial separation has occurred, further refinement then takes place. For example a large portion of the wood products received are contaminated by both ferrous and non ferrous metals, these metals are removed from the wood and then classified by type and then by class. After all contaminants are removed the wood is ground - and depending on species, moisture content, BTUs, and ash content – and further refined in order to meet our customers specific requirement.*

*The end product is a ground wood fiber that is either used for animal bedding, production of wood pellets, composite limber, or biomass energy.*

*Shenandoah Waste Services main goal is to produce low moisture, high BTU, low ash wood fiber that can be utilized as a biomass energy feedstock. As a result of all of the processes that the materials endure (from start to finish) measurable quantities of other high-value products are produced. These other high-value products are also sold. For example: aluminum, copper, iron, cardboard, plastics, and aggregates are bailed (or ground) and sold directly to end users from various industries. Less than 5 percent of the material received after processing goes to a landfill; of course, prior to being processed, all the material were slated for landfilling.*

### **Facility Requirements**

*Shenandoah Waster Services will operate on approximately 10 acres and initially construct a 25,000 square foott industrial shell building. Shenandoah Waste Services anticipates further growth which will necessitate the construction of additional industrial shell buildings. At “build out” it is anticipated that up to 100,000 square feet will be “under roof”.*

### **Associated Benefits to EMCO Enterprises and Battle Creek Landfill**

In February of 2007, EMCO Enterprises and Shenandoah Waste Services entered into an agreement in which Shenandoah Waste Services would recycle EMCO's wood scraps.

The most significant benefit to the Battle Creek Landfill will be the resulting reduction of waste sent to the landfill; thus potentially increasing the service life of the landfill.

Attached to this packet are letters from EMCO Enterprises and Page County's Department of Public Works describing the benefits that a materials recovery facility would have on their respective operations.

### **Anticipated Economic Impact**

Presently Shenandoah Waste Services employs 11 full-time employees. Provided that a suitable location for the proposed recovery center is secured, the applicant has indicated that by the end of the 2007 the operations could employ as many as 20 full-time employees. The applicant hopes to employ 80 full-time employees by 2009.

The applicant has indicated that annual salaries for full-time employees will be \$30,000+.

### **Conditions of the Special Use Permit**

The applicant, Shenandoah Waste Services, has agreed to the following conditions if the special use permit is approved (signed copy attached):

1. All recyclable materials associated with the operation of the materials recovery center will be stored inside at all times.
2. No animal waste will be processed.
3. All processes associated with the materials recovery center (e.g. grinding, sorting, etc.) will be done so indoors.
4. The materials recovery center will operate in compliance with all relevant Virginia Department of Environmental Quality standards.

### **ADJACENT USES**

To the east and south, the subject site is adjacent to industrial uses; U.S. 211 Bypass is located to the north, and to the west is an undeveloped R5 (Townhouse Residential) parcel. Recently, a final plat has been submitted for this undeveloped R5 parcel and at "build out" will consist of 200 + townhouse units.

### **Access, Traffic Impacts & Parking**

At this moment a detailed site plan for the proposed materials recovery center is not available. It is envisioned that the recovery center will have one principle point of ingress and egress - located on Stoney Brook Lane - which potentially could be aligned with the present entrance to EMCO. Also, a site plan would be required to conform to parking requirements detailed in Article V, Section 506.18 of the Town Code. This section states, “for industrial establishments...there shall be provided one parking space for each 1 ½ employees computed on the basis of maximum number of individuals employed within an eight hour shift, plus space to accommodate all trucks and other vehicles used in connection therewith.” If approved the applicant will be required to submit a detailed site plan to the Town; this site plan will be reviewed by Town staff to ensure compliance to all relevant Town Code provisions.

The applicant anticipates that once the recovery center begins operating at full capacity (80 employees, three shifts) approximately 40 trucks (double axles) will be accessing the site on a daily basis (24 hour period). It’s important to note that a significant percentage of these trucks will be originating from the adjacent EMCO site. All other non-EMCO traffic would access the site via Wallace Road; which is the current traffic pattern for all industrial traffic accessing this area.

In 2005, VDOT’s *daily traffic volume estimates* indicated that Wallace Road had an annual average weekday traffic count (AAWT) of 2,100 trips per day. If 40 percent of Wallace Road’s AAWT turns onto Stoney Brook Lane (*which is a high estimate*), extrapolating this number would mean that Stoney Brook Lane would have an AAWT of 840 trips per day. Because residential traffic accessing Brookside Park Subdivision (approximately 60 single-family homes) must use Stoney Brook Lane, it can be safely assumed that a large percentage of the AAWT for Stoney Brook Lane would be residential traffic. By assigning 10 trips per day - as the average number of daily trips generated by each single-family home located in Brookside Park – for residential traffic using Stoney Brook Lane, residential trips would account for over 70 percent of all vehicular trips using Stoney Brook Lane.

### **Floodplain**

An analysis of FEMA’s FIRM Map (Flood Insurance Rate Map) indicates that approximately 40 percent (of the portion of the parcel which Shenandoah Waster Services intends to operate on) is located in a “floodway area”. FEMA defines a floodway area as follows: “The floodway is a channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment...” Therefore the portion of the site identified as being in this area (per the FIRM map) will be required to be free of structures.

The FEMA map also indicates that approximately 60 percent of the subject site is located in the flood “fringe” or floodplain area. Per the Town Code and Virginia Uniform Statewide Building Code construction within this area is allowable provided “such development shall be undertaken only in strict compliance with the provisions of the

ordinance and with all other applicable codes and ordinances such as the Virginia Uniform Statewide Building Code and the Town of Luray subdivision regulations.”

A copy of the FIRM map is attached to this packet.

The applicant has indicated that, if approved, several industrial shell buildings will be constructed on the site, and this would necessitate the need to place fill dirt in the subject area as a means to elevate the site. And per the Town Code, State Code and Army Corps of Engineers this can be achieved as long as the process adheres to appropriate engineering principles and is done in compliance with all Town and state code. Additionally any “fill” situation would be required to be reviewed by the Town's review engineer for approval.

**Other Considerations:**

- The recovery facility would operate using three rotating shifts.
- The applicant will be making a significant investment on the proposed site. These investments would include the following: preparing the site, constructing a shell building, and purchasing equipment related to processing recyclables.

**SUMMARY**

The proposed facility would provide the Town of Luray and Page County with a salient industry which appears to have an immediate opportunity for growth. This facility would be interrelated with and adjacent to an established industry and reduce the amount of construction debris taken to the Battle Creek Landfill. Thus, potentially increasing the life-span of the Battle Creek Landfill.

The location of an identified floodplain and floodway area on the proposed site does present a challenge. For instance, a significant portion of the site lies within an identified floodway and therefore construction would be prohibited in this area. Regardless, adherence to all relevant Town and state codes governing floodplain construction - in conjunction with appropriate engineering oversight and review – ensures the Town that future development on the site will be done so in an appropriate and safe manner.

Additionally, proffers submitted by the applicant ensure the Town that the site will be uncluttered and that all processing associated with the recovery facility will be done indoors.

It is strongly believed that such a facility would be beneficial to the Town of Luray and positively impact the region’s base economy and environment.