

SUMMARY

Capital Improvements:

A review of the existing Stoney Mountain Road Landfill Facility's services in conjunction with past and present waste stream flows and characteristics was performed. In addition to the review of the existing services and waste stream, an analysis of the vehicular traffic utilizing the various services was performed. Based on this review, the following capital improvements to the Stoney Mountain Road Landfill Facility are recommended to enhance the efficiency of the present operations and provide a safe environment for the citizens, customers and employees of the County:

- Citizen's Convenience Center: Construct a new citizen's convenience center separate from but adjacent to the existing facility for the collection of citizen delivered waste and recyclable material. The convenience center would include facilities for operating the County's Household Hazardous Waste (HHW) program as well as an electronic collection center for collection of scrap computers, televisions, etc. Collection stations would be provided for such items as waste oil, oil filters, antifreeze, batteries, etc. The entrance to the site, as proposed, would be east of the existing entrance facility and would be limited to citizen traffic only. The entrance would be designed to provide adequate traffic queuing thereby minimizing traffic congestion on Stoney Mountain Road.
- New Commercial Vehicle Entrance Complete with Inbound and Outbound Scales: Construct a new entrance facility to the west of the existing entrance to provide adequate queuing for the commercial traffic so as to minimize congestion along Stoney Mountain Road. The proposed entrance would include inbound and outbound scales to facilitate the flow of traffic. The scale house would be located within visual site of the transfer station operation so as to facilitate monitoring the traffic flow.
- Upgrade the Existing Recycle Material Transfer Area: Construct upgrades to the existing recycle transfer area retaining wall and trailer staging area to facilitate the collection and consolidation of recyclable material prior to transport to a processing center. Upgrades to this facility would allow permitted haulers to dispose of collected recyclable material locally rather than haul the material out of the County for processing. Providing this service to the local permitted haulers should enhance the collection of recyclable material throughout the County.
- Construct a Recycling Processing Center: With an enhanced flow of recyclable material, the County should consider the construction of a Materials Recovery Facility (MRF) in order to process the collected material prior to sale on the market. However, due to present onsite area constraints it is recommended that a recycling processing center initially be established in an existing warehouse type facility at an offsite location. The selected location should have adequate utilities and convenient access to the major highway systems in the County. An offsite location would allow the County the opportunity to enter the recyclable materials processing business without the initial capital investment associated with constructing a large free standing structure since no

other structures on site presently provide adequate space. At some point in the future when space becomes available onsite, a new facility could be constructed and the processing equipment relocated to the new facility.

- Construction Debris Processing Area: Construct a hard surfaced facility with containment walls in close proximity to the transfer station operation for collecting and separating various types of construction debris for further processing. Items such as clean wood waste could be collected and ground into mulch. Scrap concrete and/or other road paving materials could be processed into aggregate or road surfacing material for use by the facility or other County agencies. Removing these items from the waste stream reduces the amount of waste material that must be disposed of off site.
- Yard/Wood Waste and White Goods/Scrap Metal Disposal Area: Construct hard surfaced facilities with containment walls for the collection and processing of yard/wood waste and white goods/scrap metal. The facility should be in closer proximity to the transfer station operation for better monitoring of the areas by facility staff. The hard surfaced facilities would provide all weather access to the site as well as reduce the contamination of the processed material. In the case of the scrap metal, the County should receive higher fees from the contracted processor for the cleaner material.
- Composting Area: Construct a hard surfaced facility with containment walls for processing yard/wood waste and other biodegradable materials into useable compost for use by the County, its citizens or for sale to an outside market.

The implementation of these recommended capital improvements could be spaced throughout a ten-year (10 year) period in order to reduce or minimize the affect on future budgets. However, based on the findings of this study, it is recommended that certain improvements be implemented as soon as feasible in order to enhance the efficiency of the existing facilities operation, reduce traffic congestion along Stoney Mountain Road and enhance the overall safety within the site. These initial recommended capital improvement projects proposed for construction during Fiscal Year 2011 are:

- ❖ Citizen's Convenience Center
- ❖ New Commercial Entrance Complete with Inbound and Outbound Scales
- ❖ Upgrade the Existing Recycle Material Transfer Area
- ❖ Construct a Recycling Processing Center

Based on the financial/rate analysis performed as a part of this study, these initial recommend capital improvements could be constructed during Fiscal Year 2011 without adversely affecting the present waste disposal tipping fee. Design services associated with these projects would be performed during Fiscal Year 2010. The other recommended capital improvement projects would be spaced throughout the remaining eight (8) years of the financial/rate analysis study period.

County Wide Waste Collection:

Presently Henderson County does not engage in or provide residential solid waste or recycle collection services to the unincorporated areas of County. Residential customers have the option of transporting their household waste and/or recyclable material to the Stoney Mountain Road Landfill facility in their personal vehicle or contracting with one of the numerous permitted haulers presently operating throughout the County. Some of the permitted haulers provide recyclable material collection services in addition to or as a part of their residential waste collection activities. Commercial, industrial and institutional properties are required by County Code to provide waste collection services for their operations and generally do so through one of the larger permitted commercial haulers operating within the County.

Providing a more uniform or convenient means of residential waste and recyclable material collection has been a concern of the County. To facilitate this process, the Solid Waste Advisory Committee (SWAC) reviewed the various options for residential waste collection that were available to the County. The options were published in a report titled "Henderson County MSW Study" dated September 18, 2008. The options reviewed were as follows:

- ❖ Continue Operations as Presently Being Done
- ❖ Construct Convenience Centers at Strategic Locations
- ❖ County Provides Residential Waste and Recycle Collection Services
- ❖ County Contracts Residential Waste and Recycle Collection Services
- ❖ County Contracts Curbside Recycle Collection Services Only
- ❖ Franchised Waste Collection Services

This study reviewed each of the options and presented the findings to the SWAC for consideration. Three options were selected by the committee for further review as a part of the financial/rate analysis study portion of this report. The options selected for analysis were:

- ❖ Continue Operations as Presently Being Done
- ❖ Construct Convenience Centers at Strategic Locations
- ❖ Franchised Waste Collection Services

The financial/rate analysis portion of this study was subsequently performed on the aforementioned selected collection options. Each option analyzed included the proposed capital improvement projects as summarized above.

Financial/Rate Analysis:

A financial assessment of the solid waste program was performed to confirm the status of the program based on County prepared financial audits. Utilizing this information in conjunction with projected waste tonnage trends, proposed capital improvements (CIP) and proposed equipment purchases, rate analyses were performed for the three (3) selected collection options. Each collection option was analyzed with and without the addition of revenue collected from citizens opting to utilize the convenience center as a means of disposing of their residential waste and recyclable material. A total of six (6) alternatives, as described below, were analyzed relative to the proposed tipping fees:

- Alternative 1 – Continue Existing Operations and CIP – Without Stoney Mountain Road Convenience Center Revenue.
- Alternative 2 – Continue Existing Operations and CIP – With Stoney Mountain Road Convenience Center Revenue.
- Alternative 3 – Continue Existing Operations, CIP, and Construct Convenience Centers – Without Convenience Center Revenue.
- Alternative 4 – Continue Existing Operations, CIP, and Construct Convenience Centers – With Convenience Center Revenue.
- Alternative 5 – Continue Existing Operations, CIP, and Franchise Collection – Without Convenience Center Revenue.
- Alternative 6 – Continue Existing Operations, CIP, and Franchise Collection – With Convenience Center Revenue.

The proposed tipping fee rates for each alternative are summarized in the table below, by alternative, for each Fiscal Year (FY 2010 – FY 2019):

Table 40: Proposed Tipping Fee Summary By Alternative

| Fiscal Year | Continue Existing Operations Alternative 1 | Continue Existing Operations With Convenience Center Revenue Alternative 2 | Construct Convenience Centers Alternative 3 | Construct Convenience Centers With Convenience Center Revenue Alternative 4 | Franchised Collections Alternative 5 | Franchised Collections with Convenience Center Revenue Alternative 6 |
|-------------|--|--|---|---|--|--|
| 2010 | \$52 | \$52 | \$52 | \$52 | \$52 | \$52 |
| 2011 | \$53 | \$53 | \$58 | \$58 | \$53 | \$53 |
| 2012 | \$54 | \$53 | \$64 | \$61 | \$54 | \$53 |
| 2013 | \$55 | \$54 | \$67 | \$64 | \$55 | \$53 |
| 2014 | \$56 | \$54 | \$67 | \$64 | \$56 | \$53 |
| 2015 | \$58 | \$54 | \$70 | \$65 | \$57 | \$54 |
| 2016 | \$61 | \$54 | \$71 | \$65 | \$58 | \$54 |
| 2017 | \$62 | \$54 | \$71 | \$65 | \$59 | \$54 |
| 2018 | \$62 | \$54 | \$71 | \$65 | \$59 | \$54 |
| 2019 | \$62 | \$54 | \$71 | \$65 | \$59 | \$54 |

Note: (1) All Alternatives include maintaining existing operations at the Stoney Mountain Road Landfill Facility.
 (2) All Alternatives include the Capital Improvement Projects proposed for the Stoney Mountain Road Landfill Facility.

Based on the above Proposed Tipping Fee Summary table, the construction of additional convenience centers (Alternatives 3 and 4) at strategic locations throughout the County does not appear to be a feasible option for the County to pursue even with additional revenue collected for the use of the centers. Alternative 1 and Alternative 5 require relatively steady tipping fee rate increases throughout the analysis period and are therefore not deemed as viable options for the County to pursue. Alternative 2, based on continuing the existing operation at the Stoney Mountain Road Landfill Facility, does not provide for an improvement in the collection of residential waste and/or recyclable material in the unincorporated areas of the County. Alternative 2 proposes a tipping fee rate increase to \$53 per ton in FY 2011 and a tipping fee increase to \$54 per ton in FY 2013. The \$54 per ton tipping fee would be held through the end of the analysis period (FY 2019). Alternative 6, based on continuing the existing operation at the Stoney Mountain Road Landfill Facility, incorporates the development of collection efficiencies and/or the franchising of collections for more uniform residential waste and recyclable material throughout the unincorporated areas of the County. The proposed tipping rates associated with this option include a tipping fee rate increase to \$53 per ton in FY 2011. This proposed tipping

fee rate would be held through FY 2014 and would increase to \$54 per ton in FY 2015. The \$54 per ton tipping fee would be held through the end of the study period (FY 2019). It is recommended that the financial status of the solid waste program be evaluated each year relative to changing needs in capital improvements and equipment needs and especially waste disposal trends, given the present state of the economy.