

# **APPENDIX I**

**Henderson County MSW Study  
Solid Waste Advisory Committee**

# Henderson County MSW Study

Prepared by the Henderson County Solid Waste Advisory Committee

**Revised Draft**

September 18, 2008

# **MSW Collection Options**

## **1.) Continue Present Operations**

- A.) Make No Changes At All**
- B.) Enforce Bans**
- C.) Add Permit Requirements for Recycling**

## **2.) County to Construct Multiple Collection Centers With Recycling**

## **3.) Franchise Type Options**

- › A.) Franchise Curbside Recycle Collection to All Unincorporated Areas**
- › B.) County Takes Over MSW Collection**
- › C.) County Contracts Waste Collection with Recycle**
- D.) County Grants MSW Franchise to a Single Enterprise**
- E.) County Grants Multiple District MSW Franchises**
- F.) County Grants Multiple Non-Exclusive MSW Franchises**

## **Post Collection Processing Options**

- 1.) County to Construct Simple Commercial Collection Center**
- 2.) County to Construct a Clean MRF**
- 3.) County to Construct MSW Incinerator**

# **MSW Collection Options**

## **1.) Continue Present Operations**

### **A) Make No Changes At All**

#### **Pro's**

- Easiest to Implement
- No Impact to Private Residential or Commercial Haulers

#### **Con's**

- Run Risk of Fines by Not Complying with State Bans (DNR)
- No Improvement in Recycle Recovery Rate
- Continue to Receive Citizen Complaints about Lack of Recycle Facilities

### **B.) Enforce Bans**

#### **Pro's**

- Easy to Implement
- Improvement in Recycle Recovery Rate

#### **Con's**

- Post Collection Processing Facility Needed.
- Impacts All Private Residential & Commercial Haulers

## **C.) Add Permit Requirements for Recycling**

### **Pro's**

- Improvement in Recycle Recovery Rate
- Permits Will Comply with Henderson County Ordinances

### **Con's**

- Post Collection Processing Facility Needed.
- Some Haulers Will Have to Add New Recycling Service
- Some Private Residential Haulers May Be Displaced

## **2.) County to Construct Multiple Collection Centers With Recycling**

### **Pro's**

- Improvement in Recycle Recovery Rate
- Makes Recycling Convenient County-Wide to All Residents.
- Provides Low Cost Waste Disposal for County Residents With Recycle
- Recycle Recovery Rate Will Increase
- Reduces Traffic at Stoney Mtn. Site

### **Con's**

- High Capital Investment
- Post Collection Processing Facility Needed
- High Operational Cost - Additional County Employees Needed
- May Impact Private Residential Haulers Customer Base
- Site Selection Critical (NIMBY)
- Least Efficient Fuel Use - Increased Gasoline & Diesel Fuel Consumption
- More Air Pollution

### **3.) Franchise Type Options**

#### **A.) Franchise Curbside Recycle Collection to All Unincorporated Areas**

##### **Pro's**

- Easy to Implement
- Can be Implemented Very Quickly in Event of Fines from State
- Improvement in Recycle Recovery Rate
- Recycling Available to All UnIncorporated County Residents
- No Impact on Private Residential or Commercial Haulers
- Relatively Low Operational Cost to County
- Little/No Capital Investment -- If No County Post Collection Facility Required
- Possibly Lowest Cost Option to County

##### **Con's**

- If Fee Charged to Residents; Fee Will be Viewed as Tax
- Increase County Budget if Service Provided by County
- Capital Investment If County Post Collection Facility Required
- Inefficient Use of Fuel - Additional Collection Trucks on County Roads
- Increased Air Pollution

#### **B.) County Takes Over MSW Collection**

##### **Pro's**

- County Controls MSW Completely
- Recycle Available to All UnIncorporated County Residents
- Improvement in Recycle Recovery Rate
- County Can Enforce Bans on State Prohibited Materials
- Minimize Traffic at Stoney Mtn Site
- Most Efficient Resource Use - Reduced Gasoline & Diesel Fuel Consumption
- Lowest Air Pollution Option

##### **Con's**

- Very High Capital Investment (\$1M-> \$10 M )
- Post Collection Facility Required
- High Operational Cost - Additional County Employees Needed
- Displaces All Private Residential Haulers

## **C.) County Contracts Waste Collection with Recycle**

### **Pro's**

- Improvement in Recycle Recovery Rate
- Only One Contract
- Possibly Lowest Cost MSW Service to County Residents
- County Controls MSW Completely
- Uniform Service to All UnIncorporated Residents
- Minimizes Traffic at Stoney Mtn Site
- Possibility for Reduced MSW Disposal Fee
- Results in a Consistent Recycle Program
- Little/No Capital Investment -- If No County Post Collection Facility Required
- Most Efficient Resource Use - Reduced Gasoline & Diesel Fuel Consumption
- Lowest Air Pollution Option

### **Con's**

- Displaces Private Residential Haulers
- Since County Collects Fees Fees Will be Perceived as a Tax
- County Residents Will Have No Choice
- Self Haulers Will Lose Choice
- Capital Investment If County Post Collection Facility Required

## **D.) County Grants MSW Franchise to a Single Enterprise**

### **Pro's**

- Only One Contract
- Cost Per Household Lower than Current Rates
- Minimize Traffic at Stoney Mtn. Site
- Recycle Available to All UnIncorporated County Residents
- Improvement in Recycle Recovery Rate
- Simple Operational Control
- Self Haulers Have Choice
- Recycle Requirement Part of Franchise
- Little/No Capital Investment -- If No County Post Collection Facility Required
- Most Efficient Resource Use - Reduced Gasoline & Diesel Fuel Consumption
- Lowest Air Pollution Option

### **Con's**

- Displaces All Private Residential Haulers
- Capital Investment If County Post Collection Facility Required



## **E.) County Grants Multiple District MSW Franchises**

### **Pro's**

- Improvement in Recycle Recovery Rate
- Does Not Displace All Private Residential Haulers
- Cost to Residents Lower Than Current
- Reduces Traffic at Stoney Mtn. Site
- Self Haulers Have Choice
- Recycle Requirement Part of Franchise
- Little/No Capital Investment -- If No County Post Collection Facility Required
- More Efficient Fuel Use Than Current Arrangement
- Less Air Pollution Than Current Arrangement

### **Con's**

- Collection Fee May Be Variable Depending on District
- Collection Fee Probably Not as Low as Single Franchise or Contracting
- Multiple Contracts
- Operational Control More Complex
- Some Private Residential Haulers Will Be Displaced
- Capital Investment If County Post Collection Facility Required
- Less Efficient Fuel Use Than Single Franchise or County Contract
- More Air Pollution Than Single Franchise or County Contract

## **F.) County Grants Multiple Non-Exclusive MSW Franchises**

### **Pro's**

- Improvement in Recycle Recovery Rate
- Does Not Displace All Private Residential Haulers
- Cost to Residents Lower Than Current
- Reduces Traffic at Stoney Mtn. Site
- Self Haulers Have Choice
- Recycle Requirement Part of Franchise
- Little/No Capital Investment -- If No County Post Collection Facility Required
- More Efficient Fuel Use Than Current Arrangement
- Less Air Pollution Than Current Arrangement

### **Con's**

- Collection Fee May Be Variable Depending on District
- Collection Fee Probably Not as Low as Single Franchise or Contracting
- Multiple Contracts
- Operational Control More Complex
- Some Private Residential Haulers Will Be Displaced
- Capital Investment If County Post Collection Facility
- Less Efficient Fuel Use Than Single or Multiple Franchise or County Contract
- More Air Pollution Than Single or Multiple Franchise or County Contract

# Post Collection Processing Options

## 1.) County to Construct Simple Commercial Collection Center

Process Description: Simply Collect Recyclable Materials & Ship to MRF

### Evaluation

#### • Pro's

- 1.) Low Capital Investment to County
- 2.) Low Operational Cost to County
- 3.) Lower Tipping Fees for Haulers

#### • Con

- 1.) Reduced Price for Recycle Materials
- 2.) Without Compacting High Transportation Cost
- 3.) Possible Higher Capital Cost for Haulers

## 2.) County to Construct a Clean MRF

### Process Description

#### • Input:

- 1.) Single Stream - All Recyclables Commingled
- 2.) Dual Stream
  - Paper
  - Containers

• **Output:** - Separate, Compacted, Sorted Materials Shipped to Recycle Buyer

### Evaluation

#### • Pro's

- 1) Higher Revenues from Recycling
- 2.) Lower Tipping fees for haulers

#### • Con

- 1.) High Capital Investment for County
- 2.) High Operational Cost for County
- 3.) Possible Higher Capital Cost to Haulers
- 4.) High Financial Risk to County If Facility Not Utilized

## 3.) County to Construct MSW Incinerator

Process Description: High Temperature Combustion of MSW

### Evaluation

#### • Pro's

- 1) Significant Volume Reduction of MSW

#### • Con

- 1.) Destroys Recyclables: Paper & Plastic Containers - Unless Preceded by Dirty MRF
- 2.) Creates Air Pollution
- 3.) Wasteful Process - Heat Energy Released to Atmosphere
- 4.) High Capital Investment
- 5.) Very High Operational Cost (\$100/Ton)
- 6.) Need to Dispose of Ash
- 7.) Very Difficult Permitting Process
- 8.) Site Location Critical: (NIMBY)