COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN

SFSWMA

prepared for

City of Santa Fe, Santa Fe County, and Santa Fe Solid Waste Management Agency

December 10, 2010

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submitted by

zia engineering & environmental consultants, llc

JRM&A

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and *the Recycled Revival*

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printed on recycled paper

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1.0 Overview

This Comprehensive Solid Waste Management Plan (Plan) was created by the Solid Waste Advisory Committee (SWAC) which included a variety of participants including staff from the City of Santa Fe (City), Santa Fe County (County), and the Santa Fe Solid Waste Management Agency (Agency). It is intended that the Plan be used the City, County, and Agency as a source of guidance in operating the programs and facilities that make up the solid waste management system for the whole County.

Some of the goals of the Plan are:

- To ensure financial stability for the solid waste management system;
- To increase recycling and other forms of diverting waste from the landfill;
- To provide reliable disposal services;
- To assure that costs are distributed fairly and equitably; and,
- To educate and inform a wide range of stakeholders.

2.0 Disposal and Recycling Data

- The rate of recycling achieved by the combined programs and facilities of the City, County, and Agency for FY 2010 was 9.7 %. The national average recycling rate as determined by the Environmental Protection Agency is 33 %. There is a lot of opportunity to increase recycling in the City and County to create jobs, extend the life of the landfill, and conserve resources.
- The amount of waste disposed at Caja del Rio Landfill decreased approximately 25 % from FY 2008 to FY 2010 (207,193 tons to 154,904 tons). This decline mainly reflects impacts from the ongoing economic recession as well as increased recycling.
- The City and County recycling programs have shown steady growth. The City's recycling tonnage increased 18 % from FY 2008 to FY 2010 (4,003 tons to 4,787 tons). For the same period the County's recycling tonnage rose 5 % (1,182 tons to 1,240 tons).

3.0 Assessment of Current Solid Waste Management System in Santa Fe County

Advantages / Strengths	Disadvantages / Weaknesses
1 / Functions controlled by 3 local public entities	1 / Participation in recycling is low
2 / Landfill has long – term capacity; there is no disposal crisis	2 / Promotion & education activities are intermittent, uncoordinated
3 / BuRRT offers access to recycling markets & can handle more recyclables	3 / Solid waste economics not widely understood
4 / City has composting facility, equipment	4 / BuRRT & City composting facility are under – utilized
5 / City adopted Sustainability Plan & 33 % recycling rate goal by 2012; County adopted Sustainability Plan	5 / Agency has limited ability to influence flow of waste to landfill

4.0 Guidance for the Future

Three principles and a set of fifteen related recommendations were agreed upon by the SWAC to address the goals and challenges of the Santa Fe solid waste management system. The recommendations are intended to be used by staff and decision – makers in formulating policies, designing services, and allocating resources over the next five years.

Principle A

The system's financial structure should incentivize reducing the environmental impacts of waste and sustainably fund local policies, programs, and operations for accomplishing this. The system should also provide reliable, long – term, fiscally sound disposal for refuse from within Santa Fe County.

Principle B

The system should offer a broad range of waste reduction and recycling options to residents, businesses, and institutions in the City and County.

Principle C

The system should maintain an ongoing, multi – faceted promotion / education effort in the City and County that uses diverse messages and communication media to inform a variety of audiences about waste disposal and diversion.

5.0 Recommendations and Next Steps / Comments

#	Phase 1: Development of Resource and Policy Framework
1	The City, County, and Agency should evaluate their staffing and ensure levels appropriate for implementation of the Plan. · Staffing could include full – or part – time employees and / or contractors
2	Continue Solid Waste Advisory Committee or similar group to oversee implementation of the Plan. · Contact SWAC members to determine interest in participating
3	Prohibit / ban the disposal of specified recyclable materials at BuRRT and Caja del Rio Landfill. · Agency to draft disposal ban terms / conditions for review by City, County, Agency Board
4	City, County, and Agency to adopt measurable recycling goal and target date for achievement such as 33 % by 2015. · Agency to draft resolution for approval by entities
5	Develop a communications strategy and related materials / methods. · Coordinated approach based on cooperation between City, County, Agency
6	Operate solid waste system as an enterprise fund wherein fees for services and revenue from materials disposed and recycled cover current and anticipated program capital and operating costs. · Provides rationale for flow control, accepting out – of – county waste at landfill, and changing County role in unincorporated areas
7	Evaluate feasibility of instituting flow control so that all solid waste generated within the County is delivered to either BuRRT or Caja del Rio Landfill. · City, County, Agency to examine impacts of flow control and develop ordinance language for consideration by each entity
8	Accept out – of – county waste at Caja del Rio Landfill. · Requires approval and consent of City and County for Agency to dispose of waste from outside County at the Landfill

#	Phase 2: Pursuit of Specific Initiatives
9	Explore feasibility of establishing franchises or permits for private haulers in County unincorporated areas. · Provides County with opportunity to define and organize delivery of services; related to # 10
10	Explore feasibility of requiring that residential, commercial, and institutional generators receive collection services for trash and recyclables in County unincorporated areas. · Provides County with opportunity to define and organize delivery of services; related to # 9
11	Expand collection of recyclables from residential, commercial, and institutional sources in the City and County of Santa Fe. · Increase participation in existing programs through systematic promotion, education, outreach (see # 5)
12	Improve convenience for collection of recyclables at County transfer stations. · Focus is on such factors as site access, appropriate containers, useful signage
13	Develop an area at BuRRT or Caja del Rio Landfill for materials reuse and exchange based on a public / private partnership. · Land is available at either location; could be related to # 14
14	Explore and support reuse / recovery of materials from construction and demolition sites. · In cooperation with industry group; could become part of # 13
15	Investigate and identify what other materials could be recovered for recycling or reuse / exchange. · Related to market conditions / demand and capability / equipment for materials processing at BuRRT

Final Comprehensive Solid Waste Management Plan for City of Santa Fe, Santa Fe County, and Santa Fe Solid Waste Management Agency

1 Introduction

1.1 Background

The City of Santa Fe (the City) and Santa Fe County (the County) cooperate in managing solid waste and recyclable materials. Solid waste collected by the City and County is disposed at the Caja del Rio Landfill (the Landfill) and recyclables collected by the City and County are processed and marketed at the Buckman Road Recycling and Transfer Station (BuRRT). Both of these facilities are operated by the Santa Fe Solid Waste Management Agency (SFSWMA or the Agency). The SFSWMA is governed by a Board of Directors referred to as the Joint Powers Board (JPB, the Board). The JPB has three seats for the City and three seats for the County. City Councilors and County Commissioners are appointed to fill these seats.

The City, County, and Agency together recognized the need for a Comprehensive Solid Waste Management Plan (CSWMP or the Plan) that would identify the primary principles / priorities and related programs / policies for guiding the future of solid waste management in the City and County. The SFSWMA engaged a consultant team to facilitate a stakeholder involvement process and produce a Draft and Final Plan. The consultant team consisted of Zia Engineering & Environmental Consultants, J R Miller & Associates, and the Recycled Revival.

The Plan was created by staff from the City, County, and Agency, the consultant team, and a variety of stakeholders organized into a Solid Waste Advisory Committee (SWAC). It is intended that the Plan be adopted by the City, County, and Agency and implemented through individual and joint efforts of these entities.

For a historical discussion of developments related to waste disposal and recycling in the City and County please see Appendix C.

1.2 Purpose

The focus of the planning process and the Plan itself is as follows:

- To secure long – term financial stability for the solid waste management system in the County;
- To increase recycling and other forms of diverting materials from disposal such as waste reduction, repair, reuse, mulching, and composting;
- To continue to provide for reliable disposal capacity;

- To assure that costs are distributed fairly and equitably;

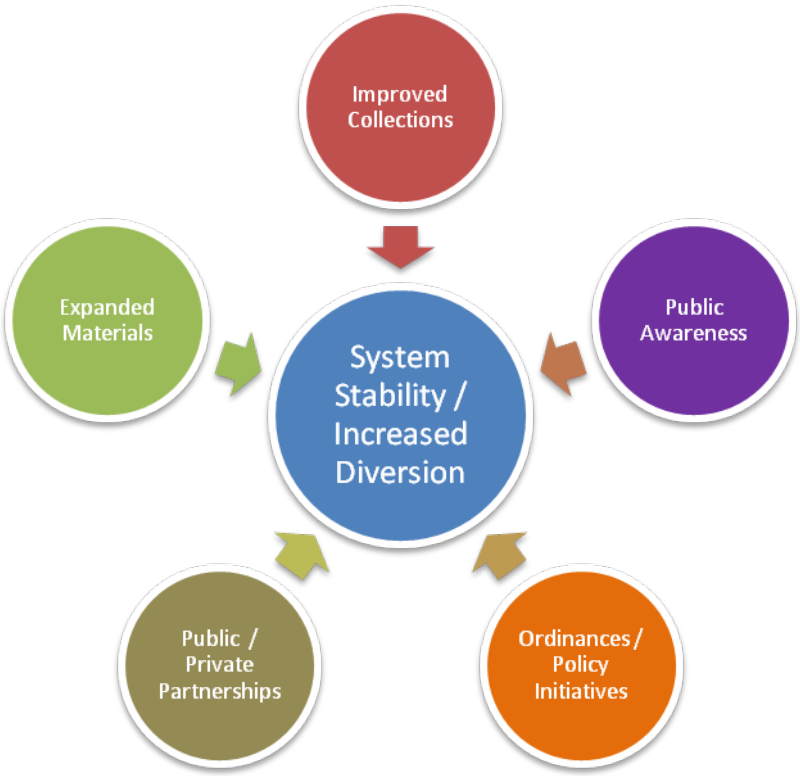
- To clarify the roles and responsibilities of the City, County, Agency, and other public, private, and non – profit parties involved with solid waste management in Santa Fe County;

- To educate and inform a wide range of stakeholders about the functions, operations, and future directions of the solid waste management system in Santa Fe County; and,

- To build consensus among stakeholders for implementation of the principles / priorities and programs / policies put forth in the Plan.

It was anticipated that system stability and increased diversion would be achieved through actions conducted in several areas, as portrayed in Figure 1. In alignment with priorities adopted by the City and County governing bodies and expressed by the participating stakeholders, a special emphasis is placed in the Plan on expanding waste reduction, reuse, and recycling activities and developing ordinances, promotion and education efforts, public / private partnerships, and other policies designed to support and enhance such activities.

Figure 1: Plan Strategies



1.3 Planning Method and Process

To facilitate participation in development of the Plan by stakeholders a Solid Waste Advisory Committee was set up at the outset of the project. The main role of the SWAC was to establish priorities, review draft text, and identify and resolve issues. The SWAC was intended to build consensus among decision – makers, the private refuse and recycling industry, the commercial and institutional sectors, neighborhood groups, environmental advocacy organizations, the general public, and other appropriate stakeholders for the policies and programs recommended in the Plan. Five SWAC meetings were held. Presentations on the status of the Plan during its development were periodically provided to the Agency's Joint Powers Board, the County Commissioners, and the City's Public Utilities Committee. Table 1 shows the SWAC membership; Appendix D contains the By – Laws and Procedures for SWAC meetings.

Table 1: SWAC Membership

#	*Sectors – 17*	*Affiliation*	*Representatives – 22*	*Position / Title*
1	SFSWMA	SFSWMA	Randall Kippenbrock (non – voting)	Executive Director
2	Santa Fe County	Santa Fe County	Olivar Barela	Solid Waste Division Manager
3	Santa Fe County	Santa Fe County	Robert Martinez	Public Works Director
4	City of Santa Fe	City of Santa Fe	Katherine Mortimer	Supervising Planner
5	City of Santa Fe	City of Santa Fe	Regina Wheeler	Solid Waste Division Director
6	City of Santa Fe	City of Santa Fe	Vivian Martinez (non – voting)	Solid Waste Division Assistant Director
7	Waste Haulers	Santa Fe Waste Services	Gene Torres	
8	Private Recyclers	Durango McKinley Paper	Martha Reyes	
9	City At-Large Resident	City of Santa Fe	Nancy Judd	
10	City At-Large Resident	City of Santa Fe	Neva Van Peski	
11	County At-Large Resident	Santa Fe County	Walter Wait	
12	County At-Large Resident	Santa Fe County	Douglas Clark	
13	Institutions	St. Vincent Hospital	Larry Dennis	Director, Facility Services
14	State of New Mexico	NMED / Solid Waste Bureau	Auralie Ashley – Marx	Bureau Chief
15	Sustainable Santa Fe Commission	City of Santa Fe	Kim Shanahan	
16	Business Groups	Santa Fe Alliance	Vicki Pozzebon	Executive Director
17	Business Groups	Santa Fe Chamber of Commerce	Simon Brackley	President
18	Recycling Advocacy Organization	New Mexico Recycling Coalition	English Bird	Executive Director
19	Schools	Santa Fe Public Schools	Richard Pitman	Science Dept., Santa Fe High School
20	Environmental Organizations	Earth Care International	Christina Selby	Executive Director
21	Reuse Organizations	Habitat for Humanity	Simone Ward	Restore Director
22	Caja del Rio / Las Campanas Area	Santa Fe County	George Collins	

The steps in the planning process are shown in Table 2.

Table 2: Planning Process Steps

Step	Activity
1	Form Solid Waste Advisory Committee (SWAC)
2	Project Kick – off Meetings
3	Description of Setting & Existing Conditions
4	System Assessment & Needs Analysis
5	SWAC Meeting # 1: System Description & Evaluation
6	Define Guiding Principles / Priorities
7	Develop Preliminary Policy & Program Options
8	SWAC Meeting # 2: Review, Evaluate, Prioritize Policy & Program Options
9	SWAC Meeting # 3: Reach Agreement on Preferred Policy & Program Options
10	Present Preferred Policy & Program Options to Agency Board
11	SWAC Meeting # 4: Agency Economics & Finances
12	Present Revised Policy & Program Options to City's Public Utilities Committee
13	Present Revised Policy & Program Options to Board of County Commissioners
14	Assemble Draft Plan
15	SWAC Meeting # 5: Review Draft Plan
16	Assemble Final Plan
17	Approval / Adoption of Final Plan by Agency Board, City, & County

In formulating recommendations for this Plan it was considered important to build upon and be consistent with existing policy initiatives and planning documents concerning solid waste management already adopted by the City and County. To accomplish this purpose the following documents were reviewed:

- City of Santa Fe Sustainability Plan (Appendix E)
- City of Santa Fe 33 % Recycling Rate Resolution (Appendix F)
- Santa Fe County Sustainable Growth Management Plan (Appendix G)
- Report on Findings and Recommendations of the Santa Fe County Solid Waste Task Force (Appendix H)
- Santa Fe County Solid Waste Ordinance (Appendix I)

2 Local Conditions

2.1 Current and Future Population

Table 3: Santa Fe County Demographic Data

Year	Metric	City of Santa Fe	Unincorporated Santa Fe County	Total County
2000	Population	62,203	67,089	129,292
	Housing Units	30,533	27,168	57,701
2008	Population	71,831	72,106	143,937
	Housing Units	31,641	29,972	61,613
2020[1]	Population	79,545 [2]	86,174	165,719
	Housing Units	38,977 [3]	34,470	73,447

[1] Bureau of Business and Economic Research, University of New Mexico
[2] Based on population distribution from 2000 census
[3] Based on housing statistics from 2000 census

2.2 Political / Institutional Entities and Responsibilities

The Santa Fe Solid Waste Management Agency was formed in 1995 through a Joint Powers Agreement (JPA; see Appendix A) that the City of Santa Fe and Santa Fe County entered into pursuant to the New Mexico Joint Powers Agreements Act. In accordance with that statute, SFSWMA is an entity separate from the City and County (see Appendix B for a detailed description of the Agency). It has been delegated the power to plan for, construct, operate, maintain, repair, replace, expand, and close the Caja del Rio Landfill (the Landfill) and the Buckman Road Recycling and Transfer Station (BuRRT).

SFSWMA prepares an annual budget which is provided to the City and the County for approval but they cannot modify the budget or attach conditions to their approval. SFSWMA is authorized to deal with matters related to operating, maintaining, repairing, expanding, and closing the Landfill and BuRRT in accordance with that budget.

The Agency has the power to collect from the City, the County, and the residents of the City and the County, solid waste disposal fees to operate, maintain, repair, replace, expand and close the Landfill or BuRRT. The fees are established through a schedule of charges or rates. That schedule, which SFSWMA has been adopting through a fee ordinance going back to 1996, is not subject to approval by the City and County. It is adopted by the SFSWMA Joint Powers Board after a public hearing.

The JPA specifies that SFSWMA will only accept waste for disposal at the Landfill that is generated within the geographic limits of Santa Fe County, unless accepting waste from outside that geographic area is determined by the Board to be appropriate, and the City and County provide approval and consent.

The Agency is governed by a Joint Powers Board. The Joint Powers Board consists of six positions – three County Commissioners and three City Council members. The Executive Director of the Agency reports to the JPB. Santa Fe County is governed by a Board of County Commissioners with five positions. The City of Santa Fe is governed by a City Council with eight positions. The City and County each have a Solid Waste Division that is responsible for solid waste management.

The County Solid Waste Division maintains and transports refuse and recyclables from seven convenience centers, also referred to as transfer stations. Private haulers collect refuse from residential and commercial customers on a "free market – subscription" basis in County unincorporated areas. There are no franchised territories or contractual arrangements with the private haulers set up by the County. In contrast, the City's Solid Waste Division collects all residential and commercial trash in the City.

The SFSWMA is not involved with collection of refuse and recyclables. The Agency provides refuse disposal and recyclables processing / marketing services through operation of the Caja del Rio Landfill and Buckman Road Recycling and Transfer Station. The landfill presently accepts only waste generated within Santa Fe County. BuRRT takes recyclable materials collected from the City and County of Santa Fe as well as from Rio Arriba County, Los Alamos County, the City of Espanola and the Village of Pecos.

The Agency's fees, rates, and charges are found in Appendix J. A financial incentive for recycling is provided because there is no charge at BuRRT for processing / marketing materials defined as conventional recyclables that originate from within Santa Fe County. Conventional recyclables include newspaper, cardboard, magazines, junk mail,

office paper, aluminum cans, aluminum foil, steel cans (also referred to as tin cans), # 1 PET plastic bottles, # 2 HDPE plastic bottles, and glass bottles / jars.

The Agency is a self – sufficient enterprise fund that generates revenue from tipping fees at the Landfill and BuRRT plus sales of recyclable materials. The City's Solid Waste Division also functions as an enterprise fund receiving revenue from service rates charged residential and commercial customers. This revenue is supplemented by funds from an Environmental Gross Receipts Tax. The County pays for its solid waste operation almost completely from the General Fund and an Environmental Gross Receipts Tax. Revenue from user fees in the form of permit sales for access to the convenience centers accounted for only 13 % of the County's solid waste budget in Fiscal Year 2009.

More detailed descriptions of the operations conducted by these three entities are found in Section 4 and Appendix K. Appendix K profiles the solid waste assets, resources, and budgets for the Agency, City, and County as of Fiscal Year 2009, the time period when most of the research for the Plan was conducted.

3 Waste Stream Description

3.1 Overview

Appendix L contains seven tables with detailed disposal and recycling data from Santa Fe County for Fiscal Years 2007 to 2010. Key trends identified from this data are noted below:

- The amount of waste disposed at Caja del Rio Landfill decreased markedly from 207,193 tons in FY 2008 to 154,904 tons in FY 2010 (both figures include construction and demolition [C & D] debris). This reflects two other trends referenced below – modest increases in recycling and a sharp decline in the quantities of construction and demolition debris taken to the Landfill by private haulers. This decline in turn reflects impacts from the ongoing economic recession.

- C & D debris disposal decreased from 72,425 tons in FY 2008 to 33,462 tons in FY 2010.

- The City and County recycling programs have shown steady growth. The City went from 4,003 tons recovered in FY 2008 to 4,787 tons in FY 2010. For the same period the County's recycling rose from 1,182 tons to 1,240 tons.

Table 4 summarizes FY 2010 disposal and recycling quantities and calculates an overall countywide recycling rate (detailed data is presented in Appendix L). **It is emphasized that Table 4 reflects recycled materials recovered by the City, County, and Agency and processed / marketed at BuRRT. There is recycling performed by private companies in the City and County that is not accounted for in Table 4. Table 4 therefore basically documents recycling done by public sector entities.**

To be consistent with State of New Mexico (New Mexico Environment Department / Solid Waste Bureau [NMED]) and U.S. Environmental Protection Agency (EPA) definitions and methodologies, the recycling rate for Santa Fe County is determined based on the quantities of municipal solid waste (MSW) disposed and recycled. MSW is residential and commercial refuse generated on a daily basis as a result of typical activities in homes and businesses. It does not include C & D debris, which as noted above can be very cyclical and vary widely from year to year.

Table 4: Summary of Fiscal Year 2010 Disposal & Recycling Data for Santa Fe County – Public Sector Entities Only

A. Source or Type	B. Disposed Tons	C. Recycled Tons
City	70,370	4,787
County	12,268	1,240
Private Haulers	14,795 (a)	584 (b)
BuRRT	16,181	not applicable
Cash Customers	5,769	not applicable
Other	2,059	not applicable
Green Waste	not applicable	5,810 (c)
Scrap Metals	not applicable	264
Tires	not applicable	206
Electronic Waste	not applicable	124 (d)
Total Tons	**121,442 (e)**	**13,015**

Overall Countywide Recycling Rate

Accomplished by Public Sector Entities (f) = 9.7 %

Notes

a / Assumes all C & D debris is transported by private haulers.

b / Includes materials delivered to BuRRT. Does not include materials processed for recycling elsewhere.

c / Agency = 5,142 tons, City = 668 tons.

d / Agency = 80 tons, City = 44 tons.

e / Assumes all tons disposed at Caja del Rio Landfill originate from within Santa Fe County per the JPA that defines the operating terms and conditions of the Agency.

f / Recycling Rate determined with the following formulas:

- ► *Disposed Tons + Recycled Tons = Generated Tons*
- ► *Recycling Rate % = Recycled Tons / Generated Tons*

4 Existing Solid Waste Management System and Practices

4.1 Overview

This Plan has been developed from the perspective of the County's solid waste management system as a whole. Such a perspective emphasizes the interactions and relationships between the various entities and operations that comprise the system. The system perspective leads to a core question:

> **What purposes are these interactions and relationships intended to serve and what are the actual consequences?**

The key elements of a solid waste management system are portrayed in Figure 2.

Figure 2: Solid Waste System Key Elements

4.2 Who Does What in Santa Fe County

Table 5 shows the services, operations, and involved parties that presently constitute the solid waste management system in the County.

Table 5: Current Roles & Responsibilities in Santa Fe County Solid Waste Management System

System Element	Operational Responsibility and Key Services
Caja del Rio Landfill	• Santa Fe Solid Waste Management Agency • Commercial waste accepted
Buckman Road Recycling and Transfer Station (BuRRT)	• Santa Fe Solid Waste Management Agency • Residential waste drop – off • Materials Recovery Facility (MRF) for processing, storage, and marketing of recyclables
7 Convenience Centers	• Santa Fe County • For garbage and recyclables
Residential Refuse Collection	• City of Santa Fe • Private haulers in unincorporated County areas
Commercial Refuse Collection	• City of Santa Fe • Private haulers in unincorporated County areas
Residential Recycling	• City of Santa Fe collection • Private haulers in unincorporated County areas • 7 County Convenience Centers and Rancho Viejo Drop – Off Station
Commercial Recycling	• City of Santa Fe collection • Private service providers
Composting	• City of Santa Fe Wastewater Division facility • Private composters
Reuse	• Reuse Center at County's Eldorado Convenience Center • Private / Non – profit Organizations – Habitat for Humanity, Goodwill, Salvation Army
Recycling Buy – back Centers	• Capital Scrap Metals • Mr. G's Recycling
Promotion and Education	• BuRRT Outreach Coordinator (Agency staff) • Adopt – a – Road Coordinator (County staff) • Community Relations (City staff)

5 Analysis of Existing Solid Waste Management System / Practices

5.1 Observations and Findings – System Advantages and Strengths

- Major system functions are controlled by local public entities – the City, County, and Agency.

- Joint Powers Board for the Agency is composed of key decision – makers, specifically three representatives each from the City Council and County Commission.

- Caja del Rio Landfill is a viable, long – term landfill site – there is no disposal crisis.

- Buckman Road Recycling and Transfer Station provides convenient access to local, regional, and national recycling markets.

- There is capacity for expansion of recycling operations at BuRRT – more materials can be accepted, processed, stored and marketed.

- The City has a composting facility that can be more extensively utilized.

- Historically there has been strong interest in recycling on the part of citizens, businesses, and institutions.

- The City and County are a focal point for activism concerning a variety of environmental / sustainability issues.

- The City has adopted a Sustainability Plan and 33 % recycling goal to be achieved by 2012. The County has also adopted a Sustainable Growth Management Plan that emphasizes waste diversion.

- The City, County, and Agency have cooperated in the preparation of this Plan.

5.2 Observations and Findings – System Disadvantages and Weaknesses

- Three public sector entities (City, County, Agency) carry out essential operations but overall leadership responsibility is unclear.

- Historically there has not been an ongoing, integrated solid waste planning effort involving the City, County, and Agency.

- Participation in recycling programs is low.

- Promotion and education activities are uncoordinated and inconsistent.

- Economic aspects of solid waste services are not widely understood by most stakeholders, including decision – makers, advocacy groups, and the general public.

- BuRRT and the City's composting facility are under – utilized resources for waste diversion.

- The Agency has limited ability to impact or influence the supply / flow of refuse to Caja del Rio Landfill, thus there is uncertainty about anticipated disposed tonnages and associated revenues from tipping fees.

- The value of using rates as an incentive to motivate waste reduction / recycling behavior is not being fully applied and realized.

- Geological conditions at Caja del Rio Landfill present ongoing financial and operational challenges to the Agency in carrying out disposal functions and extending disposal capacity.

- Small population of City and dispersed population in County unincorporated areas makes it difficult to achieve efficiencies and economies of scale for solid waste services.

5.3 Conclusions – System Needs, Challenges and Opportunities

Key conclusions arising from the planning process are offered in this section.

- The solid waste management system in Santa Fe County needs agreed upon principles and priorities to provide guidance for future activities.

- The system has three critical capital assets – the Landfill, BuRRT, and the City's composting facility – all with excess, unused capacity. Increasing utilization of these facilities by handling greater volumes of material at each will enhance revenue generation and control costs for the system as a whole.

- Recycling can be increased with promotion and education to stimulate more participation in the residential and commercial programs operated by the City, County, and Agency.

- Operating the Caja del Rio Landfill as a regional facility that accepts waste from communities throughout the region is key to its full utilization and to controlling costs for the participating entities.

- Establishing flow control to ensure that all solid waste generated within the County is disposed of in the Landfill provides financial stability for the Landfill.

- Neither the City, County, or Agency have an employee solely dedicated to development and implementation of waste reduction / recycling programs and policies.

- The County's role in solid waste management is to operate the seven convenience centers. All remaining trash is collected by private firms or self – hauled by residents / businesses to BuRRT. There are no contracts, franchises, or other legally binding arrangements between the County and private waste collection companies. They operate on a purely "free market" basis. This effectively removes material collected in that manner from direct control by the County for purposes of waste reduction / recycling or as a source of revenue generation through enactment of service fees / rates / charges.

- The City should take concrete steps to implement the policies adopted by Council in the Sustainability Plan and the "33 % recycling rate by 2012" resolution. The recycling campaign called "Save a Ton" announced October 4,

2010 by the City is an excellent and significant step in the right direction (see Appendix M).

- Maintaining the SWAC to continue coordination between the City, County, Agency, private sector and non – profit sector will be helpful in implementing the principles and recommendations of this Plan.

6 Future Solid Waste Management System Principles and Related Program / Policy Recommendations

In response to the needs, challenges, and opportunities facing the solid waste management system in Santa Fe County a set of guiding principles and priorities was formulated during the planning process (see Section 6.1). To implement these principles and priorities a series of recommended actions was identified (see Section 6.2) based on the following criteria:

- Needed for implementing the principles.
- Addresses a disadvantage / weakness of the existing solid waste management system.
- Does not require large – scale capital expenditures.
- Can be implemented in the 1 to 3 year timeframe beginning in July 2011 (start of FY 2012).
- Is an extension or modification of a current policy, program, or operation of the City, County, or Agency.

6.1 Principles

Principle A

The system's financial structure should incentivize reducing the environmental impacts of waste and sustainably fund local policies, programs, and operations for accomplishing this. The system should also provide reliable, long – term, fiscally sound disposal capacity for refuse from within Santa Fe County.

Principle B

The system should offer a broad range of waste reduction and recycling options to residents, businesses, and institutions in the City and County.

Principle C

The system should maintain an ongoing, multi – faceted promotion / education effort in the City and County that uses diverse messages and communication media to inform a variety of audiences about waste disposal and diversion.

6.2 Recommendations

6.2.1 Principle A

The system's financial structure should incentivize reducing the environmental impacts of waste generation and sustainably fund local policies, programs, and operations for accomplishing this. The system should also provide reliable, long – term, fiscally sound disposal capacity for refuse from within Santa Fe County.

Recommendation # 1 – Rates for disposal and diversion services, plus the value of recovered materials, should cover current and anticipated program capital and operating expenses. Reliance on other forms of revenue should be minimized.

- Periodic review of rates may be needed

Recommendation # 2 – "Flow control" authority secured by Agency so all designated waste generated and collected within the City or County would be delivered to either BuRRT or Caja del Rio Landfill.

- Additional volumes of refuse will control fees for all landfill users
- Reliable volumes of waste are essential for assuring facility funding and operating efficiencies
- Flow control would be established by actions of the City and County amending current solid waste ordinances. Therefore, in this regard the City, County, and Agency should conduct a joint evaluation concerning the feasibility and impacts of flow control prior to formulating appropriate ordinance modifications.

Recommendation # 3 – Accept out – of – county waste at Caja del Rio Landfill.

- Additional volumes of refuse may help control future rates
- Reliable volumes of waste are essential for assuring facility funding and operating efficiencies
- Requires approval and consent of City and County
- The Agency may consider requiring jurisdictions supplying waste to also meet recycling program criteria to be determined on a case – by – case basis

6.2.2 Principle B

The system should offer a broad range of waste reduction and recycling options to residents, businesses, and institutions in the City and County.

Recommendation # 4 – The City, County, and Agency will assess the need for additional personnel to implement the other recommendations of this Plan and hire as necessary.

- City, County, and Agency would each determine whether more resources are necessary for fulfilling their specific responsibilities related to Plan implementation
- New personnel could be part – time or full – time staff and / or contractors

Recommendation # 5 – City, County, and Agency adopt measurable recycling rate goal and target date for achievement.

- New Mexico Environment Department / Solid Waste Bureau and US EPA define recycling rate as applicable to municipal solid waste (MSW). MSW is residential and commercial refuse generated on a daily basis as a result of typical activities in homes and businesses. It does not include construction / demolition debris, which can be very cyclical and vary widely from year to year.
- The New Mexico Recycling Coalition advocates that jurisdictions adopt a 33 % recycling rate goal to be achieved by 2012. The City of Santa Fe has adopted this goal (see Appendix F).
- It is proposed that the 33 % recycling rate goal be adopted for the County as a whole. However, the achievement date would be the end of 2015 since that is more realistic starting from this point in time.
- The recycling goal would be measured based on MSW disposed and recycled. The goal is directed to MSW. Other wastestreams not considered part of MSW, such as construction / demolition debris and sludge, should be tracked separately.
- The recycling to be tracked will result from activities of the City, County, the Agency / BuRRT, and a specified list of private sector firms to be identified after research is conducted into how feasible it is to get data from those firms. The Agency would take primary responsibility for data compilation and determining the annual recycling rate. This would be based on records from BuRRT along

with relevant additional information provided by the City, County, and private sector.

- Adoption of the 33 % recycling rate goal means that the involved parties intend to steadily increase the amount of material recycled annually in order to reach that goal

Recommendation # 6 – Investigate and identify what other materials could be recovered for recycling or reuse / exchange.

- The Agency could expand the materials accepted for recycling at BuRRT
- Staff from City, County, and Agency will coordinate / cooperate on regular basis to decide what new materials can feasibly be processed / marketed

Recommendation # 7 – Improve convenience for collection of recyclables at County transfer stations.

- Requires relatively modest capital expenditures
- Improvements include but are not limited to: consistent instructional signs concerning material preparation and placement; safe, sturdy access ramps / stairs to containers for recyclables; adequate number and size of containers; clearly indicated traffic flow / direction; availability of educational literature on waste reduction / recycling techniques

Recommendation # 8 – Facilitate development of an area at BuRRT and / or Caja del Rio Landfill for materials reuse and exchange using a public / private partnership.

- There is undeveloped land surrounding BuRRT that is owned by the City and could be used for this purpose
- Could be used for construction and demolition debris
- Offers opportunity for partnership with for – profit and / or non – profit third parties

Recommendation # 9 – Improve and expand collection of recyclables from residential, commercial, and institutional sources in the City of Santa Fe.

- Most cost – effective approach is to focus on greater use of existing recycling opportunities
- Accomplished in part through increased promotion / education

Recommendation # 10 – Explore and support reuse / recovery of materials from construction and demolition sites.

- Based on partnerships between City, County, Agency, private, and non – profit sectors
- Starting point could be pilot / demonstration projects
- Reuse / recovery of materials from construction and demolition sites could also be increased through policy and ordinance initiatives to be investigated and enacted by City, County, and Agency

Recommendation # 11 – Prohibit / ban the disposal of specified recyclable materials either at the point of generation (residences, businesses, institutions) and / or the point of disposal (BuRRT and Caja del Rio Landfill).

- Emphasizes importance of recycling
- Disposal prohibition / ban can be pursued by City and County through ordinance changes; disposal prohibition / ban is consistent with powers and authorities of Agency as described in JPA
- Can be implemented gradually and with step – by – step approach

Recommendation # 12 – Explore the feasibility of establishing franchises or permits for private haulers in County unincorporated areas.

- Could be used to set up exclusive service territories or just be requirement to provide service
- Can define service and performance standards
- Easier to carry out public policy through formal franchise contracts or permit terms
- Can be done in coordination with # 13
- Revised rate structure needed

Recommendation # 13 – Evaluate requiring that residential, commercial, and institutional generators receive collection services for trash and recyclables in County unincorporated areas.

- Can be done in coordination with # 12
- Could be part of terms and conditions in hauler franchises or permits
- Makes it easier to define and achieve uniform service levels
- Leaves future of convenience centers open to discussion
- Revised rate structure needed

6.2.3 Principle C

The system should maintain an ongoing, multi – faceted promotion / education effort in the City and County that uses diverse messages and communication media to inform a variety of audiences about waste disposal and diversion.

Recommendation # 14 – Develop a communications strategy and related materials / methods.

- Development and implementation of communications strategy and related materials / methods should be jointly undertaken by the City, County, and Agency to assure a coordinated approach
- Ongoing support and input from SWAC or similar group would be very helpful
- Could involve private communications / public relations firm
- Examples of communications materials / methods are:

  - Print ad campaign
  - Recurring “green column” in local newspaper
  - Newsletter
  - Radio public service announcements
  - Solid waste truck side advertising
  - Exposure through bus sides, bus stops
  - Speaker tour to civic groups
  - Development of “new resident” info for distribution through realtors
  - Direct sale / distribution of home compost bins
  - Green Business Initiative – “This Business Recycles” window sticker program
  - Development of business recycling guides for distribution through Chamber of Commerce, Santa Fe Alliance, other sources

Recommendation # 15 – To assist with implementation of the Plan and the associated promotion / education effort (Recommendation # 14), the SWAC or a similar group should meet on a regular basis for at least the first year of implementation to maintain citizen / stakeholder involvement.

- Forward momentum toward preparing and adopting the Plan has been achieved through the diverse representation on the SWAC

- Implementing the Plan's recommendations necessitates continued and enhanced communication, cooperation, and coordination between the Agency, the City, the County, the private sector, and the non – profit sector. These are all represented on the SWAC.

- Maintaining the SWAC, or establishing a similar body, for at least a year would help to push Plan implementation ahead and help to make waste reduction / recycling remain visible on the agendas of decision – makers. It will serve as a source of advice and guidance to City, County, and Agency staff and facilitate formation of public / private partnerships essential for carrying out the Plan's recommendations.

APPENDIX A

First Amended Joint Powers Agreement

CITY/COUNTY LANDFILL

FIRST AMENDED JOINT POWERS AGREEMENT

THIS FIRST AMENDED JOINT POWERS AGREEMENT ("Agreement"), is entered into pursuant to the Joint Powers Agreements Act, §§11-1-1 through 11-1-7, NMSA 1978 (the "JPA Act"), by and between the City of Santa Fe, New Mexico (the "City"), and the County of Santa Fe, New Mexico (the "County"), as of the Effective Date (as defined below).

RECITALS

A. Pursuant to Sections 3-48-1 through 3-48-7 NMSA 1978, the City has the power and authority to dispose of solid waste.

B. Pursuant to Sections 4-56-1 through 4-56-3 NMSA 1978, the County has the power and authority to dispose of solid waste.

C. It is in the best interests of the citizens of the City and the County that the City and the County jointly undertake to exercise their powers to dispose of solid waste, and thereby provide a more efficient and cost-effective method of solid waste disposal to City and County citizens.

D. Therefore, the City and the County desire to purchase, permit, construct, operate and maintain a joint regional solid waste disposal facility (the "Facility"), and to establish and be part of a solid waste management agency that will engage in planning, management, and operation, including, maintenance, expansion and closure, as appropriate, of the Facility.

E. The City and the County desire to equally divide the tasks necessary to acquire the real property on which the Facility will be located (the "Facility Site") and to obtain the appropriate permits for the Facility from the relevant public agencies and authorities.

JPA 97-035

F. The City and the County will jointly employ a solid waste director (the "Director"); and the position of the Director, including the responsibilities of the Director, shall be as set forth in this Agreement.

G. Accordingly, the City, through its lawful agent, the Director, has contracted with an independent contractor ("Contractor") to prepare and submit a permit application for the Facility (the "Application") to the New Mexico Environment Department ("NMED"); and the Application has been prepared and submitted to NMED.

H. The County has acquired the Facility Site, which is located in the County, and which is more particularly described on Exhibit A to this Agreement.

I. Each of the City and the County is a "public agency" as that term is defined in the JPA Act.

J. The City has acquired a permit issued by the Environment Department of the state of New Mexico for the Facility which permit is more particularly described in Exhibit B attached to this agreement.

AGREEMENTS

NOW, THEREFORE, in consideration of the mutual covenants and agreements contained in this Agreement and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the City and the County agree:

1. **The Agency**.

1.01. Establishment of the Agency. The City and the County establish the Santa Fe Solid Waste Management Agency (the "Agency"), and delegate to the Agency the power to plan for, operate, construct, maintain, repair, replace, expand, or close the Facility and such other powers as set forth herein, subject to the terms of this Agreement and subject to applicable law. The Agency shall be a public entity separate from the parties to this agreement.

1.02. Agency Board of Directors. The Agency shall be managed by a Board of Directors (the "Board") comprised as follows:

(a) Four members, each of whom shall be a City Councilor from a different elective district within the City, shall be appointed by the City's Mayor with the approval of the City Council, and each of which City members shall serve for such period as may be determined from time to time by the Mayor with the approval of the City Council; and

(b) Four members, each of whom shall be a County commissioner, appointed and approved by the Board of County Commissioners, and each of which County members shall serve for such period as may be determined and approved from time to time by the Board of County Commissioners.

(c) The Board shall elect a Chairman, Vice-Chairman, and Clerk for the purposes of holding meetings, doing business, and executing documents as required and consistent with the terms of this Agreement.

1.03. Powers of the Board. Each of the City and the County delegates the following powers and authority to the Agency and the Board, as the managing authority of the Agency, subject to the following limitations:

(a) **Rules and Procedures.** The power to adopt and implement rules and procedures with respect to the operation of the Agency, the Board, and the Facility, which rules and procedures must first be approved by each of the City and the County prior to being implemented;

(b) **100-Year Plan.** The power to recommend and implement a 100-year plan for the provision of joint City/County regional solid waste disposal services for the City and County, which plan shall not be formally adopted or implemented unless and until it has been approved by each of the City and the County.

(c) **Annual Budget**. The power to recommend an annual budget for the Agency and the Facility, which budget shall be finalized for recommendation after a public hearing, and which budget shall not be formally adopted or implemented unless and until it is approved by each of the City and the County. However, the City and the County shall have only the power to approve or disapprove the annual budget of the Agency; and shall not have the power to modify the annual budget or approve the budget subject to any conditions. If, for any reason, the Agency fails to have an approved annual budget for a fiscal Agency year as of the first day of that year, the annual budget for the prior fiscal Agency year shall be effective for the subsequent fiscal year until such time as an annual budget is adopted and approved for that subsequent fiscal year.

(d) **Operation of Facility**. The power to operate, maintain, repair, replace, expand, and close, as appropriate, the Facility in conformity with the relevant, adopted annual budget, which power shall include, without limitation, the powers to employ personnel, enter into contracts, amend, restate, modify or rescind applications and other documents filed with respect to the Facility with a public agency or entity, and perform any other function necessary for, and incidental to, the operation, maintenance, repair, replacement, expansion, and closure of the Facility; provided, however, that the Facility shall not be expanded or closed, and no actions with respect to the expansion or closure of the Facility shall be taken without the prior approval of each of the City and the County.

(e) **Financing**. The power to apply for grants, loans, financial guarantees, and other financial assistance from private or public, including state and federal, agencies, institutions and entities; provided, however, that the Agency shall not obligate itself on a loan or encumber any of the Agency's or the Facility's property or assets unless and until each of the governing bodies of the City and the County approves

such loan or encumbrance. The Agency shall be empowered to adopt revenue bond ordinances in accordance with § 11-1-7 N.M. Stat. Ann. (Michie 1978) and section 3.03 of this agreement so long as any such revenue bond ordinance is duly ratified by ordinance by the governing bodies of each of the City and County.

(f) **Fees**. The power to collect from the City, the County, and the residents of the City and the County, solid waste disposal fees as may be necessary or appropriate to operate, maintain, repair, replace, expand or close, as appropriate, the Facility, which fees shall be pursuant to a schedule of fees adopted by the Board after a public hearing and the powers to pledge the fees and other income of the Agency and the Board to the payment of loans, obligations and revenue bonds.

(g) **Enforcement**. The power to use any and all legally delegable remedies provided under state statute, City ordinance, or County code for the enforcement of actions by and collection of monies for Agency operations.

1.04 Meetings of the Board. The Board shall have at least one regularly scheduled meeting per calendar quarter, unless more or less frequent meetings are set by the Board pursuant to Agency rules and procedures adopted by the Board in accordance with Section 1.03(a). A quorum shall be deemed to be present at each Board meeting if a majority of Board members is present. No action shall be taken at any meeting of the Board unless a quorum is present. A simple majority of Board members who are present at a duly called meeting of the Board at which a quorum is present shall act for the Board with respect to all matters brought before the Board at that meeting.

1.05. Tie Votes. If the Board reaches a tie vote at any duly called meeting of the Board at which a quorum is present on any action item within the authority of the Board, as provided by this Agreement, then the matter shall be submitted to arbitration in Santa Fe County, New Mexico, pursuant to the New Mexico Arbitration Act, §§44-7-1

through 44-7-22 NMSA 1978, and the rules promulgated under that Act, so that the matter is finally decided within sixty (60) days of the date of the Board meeting at which the tie vote occurs. At any time during such sixty (60) day period, the Board may convene a special meeting of the Board for purposes of resolving the issue that caused the tie vote.

Arbitration pursuant to this Section 1.05 shall be before a panel of three (3) arbitrators, one (1) selected by members of the Board appointed by the City, one (1) selected by members of the Board appointed by the County, and the third selected by the other two arbitrators. Any award granted or determination made by two of the three arbitrators shall be the final award and decision of the panel and shall be binding upon the Agency, the Board and the parties, to the extent provided in that decision. Costs associated with arbitration shall be deemed to be operating costs of the Agency payable out of the Agency budget. However, if either of the parties incurs costs associated with an arbitration proceeding, such as legal costs, that party shall be solely responsible for the costs incurred by it unless otherwise determined by the relevant arbitration panel.

2. Operational Structure for the Facility.

2.01. Staff Advisory Committee. The City and the County and the Board shall establish a five-member staff advisory committee (the "Staff Committee") which shall be comprised of the Director of Finance for the City, the Director of Finance for the County, the Director of the City's Public Works or Utilities Department, as appropriate, the Director of the County's Public Works or Utilities Department, as appropriate, and the Director. The Director shall serve as chair of the Staff Committee. The Staff Committee shall meet at least once a calendar quarter prior to the regularly scheduled meeting of the Board; and shall make recommendations to the Board on the following:

(a) Compliance by the Facility with all applicable laws, rules, and

regulations, including the conditions imposed under the applicable NMED permit for the Facility;

(b) Costs associated with the Facility and preparation of the Agency's annual budget;

(c) Any expansion or closure of the Facility; and

(d) Such other matters as may be requested from time to time by the Board.

2.02. Citizens Advisory Committee. Within ninety (90) days of the Effective Date, each of the City and the County shall appoint two (2) citizens to a five-member citizens advisory committee (the "Citizens Committee"); and the Director shall serve as chair of the Committee. The Citizens Committee shall meet at least once a calendar quarter prior to the regularly scheduled meeting of the Board; and shall make recommendations to the Board of the following:

(a) Compliance by the Facility with all applicable laws, rules, and regulations, including the conditions imposed under the applicable NMED permit for the Facility;

(b) Costs associated with the Facility and preparation of the Agency's annual budget;

(c) Any expansion or closure of the Facility; and

(d) Such other matters as may be requested from time to time by the Board.

2.03. Use of Facility. Unless otherwise determined by the Board, with the prior approval and consent of the City and the County, only waste generated within the geographic limits of Santa Fe County may be disposed at the Facility by persons operating under express agreements with the Agency.

3. Funding.

3.01. Start-Up Costs. Each of the City and the County shall pay one-half of the amounts required to pay the capital and operating costs associated with the acquisition of, permitting for, construction of, and commencement of operations at, the Facility (the "Start-Up Costs"). What constitutes "Start-Up Costs" with respect to the Facility shall be mutually determined by the parties in accordance with generally accepted accounting principles, consistently applied ("GAAP"). The parties agree that Start-Up costs include, without limitation, the costs associated with acquiring the Facility Site, acquiring property necessary to construct the Facility, permitting the facility, including related consultants costs, and the initial monies necessary to operate the Facility prior to the collection of fees from Facility users. Each party shall pay its share of Start-Up Costs when and as the same become due or, if the Agency has an adopted annual budget, in accordance with the schedule set forth in that budget.

3.02. Operating Costs and Debt Service. In accordance with the approved annual budget for the Agency, the Agency shall expend the revenues (the "Fee Revenues") generated by the collection of fees imposed on the City, the County and other users provided for in section 2.03 supra, for the use of the Facility by each to pay for the Agency's operating costs, any expenses and costs associated with service of the Agency's debt, and all capital costs other than Start-Up Costs. If, for any reason, the Fee Revenues are insufficient to pay the costs associated with the Agency's operations, debt service, and capital improvements (other than those covered by Start-Up Costs), the Board promptly shall notify the City and the County; and each of the City and the County hereby agree to meet, negotiate in good faith and take such steps as may be reasonable and prudent in light of existing circumstances to insure that any deficits accumulated or incurred by the Agency are not allowed to impair the operation, integrity or creditworthiness of the

Agency. However, it is hereby agreed and acknowledged that any debts of the Agency shall not be the debts of the parties hereto and that nothing in this agreement is to be construed as creating an obligation or debt of a public entity which is or may be deemed a violation of New Mexico Law. The terms "operating costs", "debt service costs", and "capital costs" have the meanings assigned to them under GAAP.

3.03. Revenue Bonds. Without limiting the generality of Sections 3.01 and 3.02, funds required for the development, operation, closure and post-closure of the Facility may be generated by the Agency through the issuance of revenue Bonds as authorized by Section 11-1-7 NMSA 1978, or any successor or replacement statute. Revenue Bonds shall be issued pursuant to an ordinance adopted by the Board in accordance with the most restrictive procedures prescribed by state law for adopting revenue bond ordinances by the City or County and which ordinance shall be ratified by ordinance by the governing body of each of the City and County.

4. Facility Director.

4.01. Director of the Facility. The Director shall be contracted by the Board pursuant to their duly adopted personnel policy. The salary of, and any employment-related benefits for, the Director will be included in the annual budget for the Agency and will be paid, or provided for, by the Agency. The Director shall remain employed by the Agency at the pleasure of the Board. In the event that the Director is absent, ill, or otherwise unable to fulfill his duties for a protracted period of time, the Board shall select a designee to perform the duties of the Director on an interim basis.

4.02. Duties of Director. The duties of the Director shall include, without limitation:

(a) the management and supervision of the operations of the Facility in accordance with the adopted annual budget of the Agency and in compliance with all

applicable laws, rules, and regulations, including the conditions imposed under the applicable NMED permit for the Facility;

(b) the negotiation, execution and delivery of agreements, contracts, instruments and other documents in furtherance of the operations of the Facility, subject to the adopted annual budget of the Agency and all applicable laws, rules, and regulations, including the conditions imposed under the applicable NMED permit for the Facility;

(c) the authority to hire and terminate such personnel as may be required or appropriate to operate and maintain the Facility, subject to the adopted annual budget and personnel rules and administrative manual or procedures adopted by the Agency as well as all applicable laws, rules, and regulations, including the conditions imposed under the applicable NMED permit for the Facility; and

(d) the insurance of compliance by the Facility with all applicable laws, rules, and regulations, including the conditions imposed under the applicable NMED permit for the Facility.

5. Property.

5.01. Property other than the Facility Site. In accordance with its approved annual budget, the Agency may acquire real property and personal property other than the Facility Site and the Facility to implement this Agreement and to operate the Facility. Title to all real and personal property acquired with respect to the Facility, including the Facility Site and the NMED permit for the Facility ("Facility Property"), shall be vested in the Agency. Each of the City, the County, and the Agency shall take all such actions, and shall execute and deliver all such agreements, instruments, and other documents as may be necessary or appropriate to transfer title to all Facility Property to the Agency.

5.02. Sale of Facility Property. Upon termination of this Agreement or the conclusion of closure and post-closure activities for the Facility, whichever first occurs,

the City and the County delegate to the Board the power and authority to cause the sale of all Facility Property, other than the Facility Site (unless such sale is pursuant to a termination of this Agreement occasioned by the sale of the Facility and its operations), and shall use the proceeds of such sale to wind up the Agency's operations and affairs. Any sale proceeds remaining after the winding up of the Agency's operations and affairs shall be paid to the City and to the County in equal portions unless either of the County or the City failed to make payments required under Article 3, in which case, payment of sale proceeds shall be in proportion to the amounts contributed by the parties under Article 3. The Board may, in its sole judgment and discretion, make in-kind distributions to the parties in lieu of effecting a property sale and distributing the proceeds; and in-kind payments shall be distributed to the City and to the County in equal portions unless either of the County or the City failed to make payments required under Article 3, in which case, such distribution shall be in proportion to the amounts contributed by the parties under Article 3.

6. **NMED Permit; Financial Assurances; Liability for Facility**. The City, through its lawful agent, the Director, has contracted with the Contractor to prepare and submit a permit Application for the Facility to the NMED; and the Application has been prepared and submitted to NMED. Each of the City and the County will provide one-half of any financial assurance required with respect to the Facility to obtain a Facility permit from NMED or otherwise to comply with applicable laws, rules and regulations. The Agency shall be liable for all matters and obligations concerning the Facility; provided, however, that if liability arises with respect to the Facility that reasonably can be traced to the use of the Facility by either the City or the County or the respective licensees of either the City or the County, then the user that caused, or whose licensees caused, the liability shall be obligated to pay such liability as and to the extent the Agency is unable to pay such

liability. The City and the County agree that the Permit may be amended, as appropriate, to reflect the division between the parties of the obligation to provide financial assurance and of liability with respect to the Facility and Facility Site set forth in this Article 6.

7. Term and Termination.

7.01. Term. The date on which this Agreement shall be effective (the "Effective Date") shall be the date on which this Agreement is approved by the New Mexico Department of Finance and Administration. This Agreement shall be effective from the Effective Date through the date of termination, as provided in Section 7.02.

7.02. Termination.

(a) **By One Party.** Each of the City and the County may terminate this Agreement by delivering notice to the other party and to the Agency of its desire to terminate this Agreement. The Board shall announce its receipt of a termination notice at the regularly scheduled, public meeting of the Board following the day the Board receives the termination notice; and this Agreement will terminate no earlier than eighteen months after the date that the Board notice is announced at a meeting of the Board. Each party shall perform its respective obligations under this Agreement through the date of termination, and thereafter to the extent such obligations properly arise or accrue during the effective period of this Agreement. The terminating party shall have the right to use the Facility for a period of up to five years from the date of termination. Unless otherwise agreed by the City and the County, such post termination use shall be on the terms and conditions set forth in this Agreement. During all times that the Facility is being used jointly by the parties, whether or not this Agreement has terminated, the Board, the Staff Committee and the Citizens Committee shall continue to function as provided in this Agreement.

(b) **By Mutual Agreement of the Parties.** The parties, by mutual

written agreement executed on behalf of each party, may terminate this Agreement on such terms and subject to such conditions as provided in the mutual written agreement.

(c) **Retention of Fiduciary Responsibilities.** Each of the parties acknowledges and accepts that it has a fiduciary responsibility with respect to the operation of the Facility and the Agency.

7.03 Limitation on Termination. Notwithstanding the provisions in sections 7.01 and 7.02, the parties shall not terminate this Agreement so long as any revenue bonds issued under this Agreement by the Agency are outstanding, i.e. so long as there has not been full payment or defeasance of such revenue bonds.

8. General Provisions.

8.01. Review. This Agreement and the operation of the Agency and the Facility shall be reviewed and evaluated jointly by the City and the County on every fifth anniversary of the Effective Date or as deemed necessary by the Board upon the recommendation of the Staff Committee. The review and evaluation may include deliberations concerning the viability of establishing a Solid Waste Authority pursuant to the Solid Waste Authority Act, §§74-10-1 through 74-10-100, NMSA 1978, or any successor or replacement statute.

8.02. Records and Audit. As provided in Section 11-1-4 NMSA 1978, the Agency shall be strictly accountable for all receipts and disbursements, and shall maintain adequate, complete and correct records and statements pertaining to receipts, disbursements, and other financial matters pertaining to the Facility and the Agency, in accordance with GAAP. Each year, the Board shall cause an annual audit of the Agency and the Facility to be performed by an independent certified public accountant; and the audit shall be provided to each of the City and the County and shall be made available to the public.

8.03. Amendment; Effect; Interpretation. This Agreement:

(a) may not be modified, amended, supplemented or rescinded except by a written agreement executed by each of the City and the County in the manner in which this Agreement was executed by each of the City and the County.

(b) incorporates the entire understanding of the parties with respect to the subject matter of this Agreement; and replaces and supersedes all prior agreements and understandings with respect to the subject matter of this Agreement; and

(c) is governed by, and shall be construed in accordance with the laws of the State of New Mexico.

8.04 Separability. The provisions of this Agreement shall be interpreted and construed so as to be consistent with all applicable laws. If any part of this agreement is deemed unlawful, void, voidable or otherwise unenforceable the remainder of the agreement shall continue in full force and effect and only so much of the agreement as is necessary shall be separated herefrom and made unenforceable.

IN WITNESS WHEREOF, each of the City of Santa Fe, New Mexico, and the County of Santa Fe, New Mexico, has caused this Agreement to be executed and delivered by its duly authorized representative as of the date specified below.

City of Santa Fe, New Mexico

By: _____

Mayor Debbie Jaramillo

Date: 11/3/96

ATTEST:

Yolanda Y. Vigil

Yolanda Y. Vigil, City Clerk

APPROVED AS TO FORM:

Laura J. Silva for Mark Basham

Mark Basham, City Attorney

County of Santa Fe, New Mexico,

By: Richard D. Anaya
County Commissioner

Title: Chairman

Date: 10-23-96

ATTEST:

10-25-96

County Clerk

APPROVED AS TO FORM:

Denise Brown Kulseth for

Steve Kopelman, County Attorney

THIS AGREEMENT HAS BEEN APPROVED BY:

State of New Mexico

Department of Finance Administration

By:

Date: 11/18/96

Landfill.fin/pad/1002

Reviewed by: S.F. County

Date:

DFA-Local Government Division

Reviewed by: Susan M. Rodriguez City of S.F.

Date: 11/7/96

DFA-Local Government Division

AMENDMENT NUMBER ONE TO CITY/COUNTY LANDFILL FIRST AMENDED JOINT POWERS AGREEMENT

THIS AMENDMENT NUMBER ONE is made and entered into this 28 day of December 2000 by and between the CITY OF SANTA FE, NEW MEXICO, herein referred to as "CITY", the COUNTY OF SANTA FE, NEW MEXICO, herein referred to as "COUNTY", and the SANTA FE SOLID WASTE MANAGEMENT AGENCY, herein referred to as "AGENCY".

RECITALS

WHEREAS, the CITY and the COUNTY entered into the City/County Landfill First Amended Joint Powers Agreement on November 18, 1996, attached as Exhibit "A" and made part of this Amendment, and,

WHEREAS, Section 8.03 Amendment; Effect; Interpretation of the original Agreement allows amendments to be made by written agreement executed by each of the CITY and the COUNTY, and,

WHEREAS, it has been necessary to amend the City/County Landfill First Amended Joint Powers Agreement to reduce the number of board members serving on the Joint Powers Board, and,

NOW THEREFORE, it is agreed by the CITY, the COUNTY, and the AGENCY that the City/County Landfill First Amended Joint Powers Agreement be amended as follows:

1. Page 3, Section 1.02, delete paragraphs (a) and (b) in their entirety and insert the following in lieu thereof:
   (a) Three members, each of whom shall be a City Councilor from a different elective district within the City, shall be appointed by the City's Mayor with the approval of the City Council, and each of which City members shall serve for such a period as may be determined from time to time by the Mayor with the approval of the City Council; and
   (b) Three members, each of whom shall be a County Commissioner, appointed and approved by the Board of County Commissioners, and each of which County members shall serve for such a period as may be

determined and approved from time to time by the Board of County Commissioners.

Except for the above Amendment, the original City/County Landfill First Amended Joint Powers Agreement shall remain in full force and effect unless expressly amended or modified by the Amendment No.1.

IN WITNESS WHEREOF, the parties have set their hands and seal this day and year set forth below.

SANTA FE SOLID ~~WASTE~~ MANAGEMENT AGENCY:

PAUL ~~DURAN~~, COUNTY COMMISSIONER

DATE: 2-6-01

CITY OF SANTA FE, NEW MEXICO:

LARRY A. DELGADO, MAYOR

DATE: 2·2·2001

APPROVED AS TO FORM:

PETER DWYER, CITY ATTORNEY

SANTA FE COUNTY, NEW MEXICO:

Richard D. Anaya

RICHARD A. ANAYA, CHAIRMAN

DATE: 12/28/00

ATTEST:

Rebecca Bustamante 12/28/00

REBECCA BUSTAMANTE, SANTA FE COUNTY CLERK

(Seal)

APPROVED AS TO LEGAL FORM AND SUFFICIENCY:

by

STEVE KOPELMAN, SANTA FE COUNTY ATTORNEY

THIS AGREEMENT HAS BEEN APPROVED BY:

State of New Mexico

Department of Finance Administration

By: #2116l

Date: 2-16-01

APPENDIX B

Description of the Agency

Description of Santa Fe Solid Waste Management Agency (SFSWMA, the Agency) and Its Relationship with the City and County of Santa Fe

prepared by Mark Baker, Agency Counsel

This text provides a description of the responsibilities and obligations of the City of Santa Fe and Santa Fe County regarding the structure, operations, and finances of the Santa Fe Solid Waste Management Agency (SFSWMA, the Agency). The primary reference document is the First Amended Joint Powers Agreement (JPA). This is a relatively high-level overview of that document. For answers to particular questions, the JPA should be referred to directly.

SFSWMA was formed in 1995 through the original JPA, which the City and County entered into pursuant to the New Mexico Joint Powers Agreements Act. In accordance with that statute, SFSWMA is an entity separate from the City and County. It has been delegated the power to plan for, construct, operate, maintain, repair, replace, expand, or close the Caja del Rio Landfill and Buckman Road Recycling and Transfer Station (BuRRT). This is spelled out in Section 1.01 and Recital "C" of the JPA.

SFSWMA is managed by its Board of Directors – commonly referred to as the Joint Powers Board (JPB, the Board) – which currently has three seats for the County and three seats for the City. The City has not designated a member to fill the third seat it is allocated. The Mayor appoints City Councilors to the City-designated seats on the Board, while the Board of County Commissioners approves Commissioners for the County-designated seats. This arrangement provides the City and the County an equal voice in SFSWMA's work, and members of the Board are in a position to raise questions or concerns other members of the City Council or the Board of County Commissioners may have about SFSWMA for consideration.

SFSWMA is entitled to put together its annual budget. The City and the County have the right to approve that budget, but they cannot alter it or attach conditions to their approval. SFSWMA is authorized to deal with matters related to operating, maintaining, repairing, expanding, and closing the landfill and BuRRT in accordance with that budget. Section 1.03 of the JPA lists specific powers SFSWMA holds and describes the particular circumstances in which City and County approval is necessary beyond approval by the Board.

With regard to finances, SFSWMA has the power to apply for grants, loans, and other financial assistance from private or public sources but cannot obligate itself on a loan or encumber any of its property without City and County approval. The agency is authorized to adopt revenue bond ordinances so long as any such

ordinance is ratified by the City and County. This is spelled out in Section 1.03(e) of the JPA.

Section 1.03(f) specifies that SFSWMA has the power to collect from the City, the County, and the residents of the City and the County, solid waste disposal fees as may be necessary or appropriate to operate, maintain, repair, replace, expand or close the landfill or BuRRT. The fees are to be established through a schedule of fees. That schedule, which SFSWMA has been adopting through a fee ordinance going back to 1996, is not subject to separate approval by the City and County. It is adopted directly by the SFSWMA Board after a public hearing. Pursuant to Section 1.03(g), SFSWMA is authorized to use any and all legally delegable remedies provided under state statute, City ordinance, or County code for the enforcement of actions by and collection of monies for, SFSWMA operations.

When SFSWMA was created, the City and the County each paid half of the start-up costs to get the landfill operating. Operating costs since that time have been paid through the collection of fees imposed on the City, the County and other users in accordance with the schedule of fees discussed above. Although SFSWMA's debts are not the debts of the City and County, the JPA specifies the role the City and County are expected to play if a deficit ever arose. If at any time fee revenues are insufficient to pay the costs associated with SFSWMA operations, debt service, and capital improvements, Section 6 of the JPA provides that the City and the County must meet, negotiate in good faith, and take reasonable and prudent steps to ensure that any deficits do not impair SFSWMA operations, integrity, or creditworthiness.

Section 6 of the JPA also specifies that the City and County are responsible for providing one-half of any financial assurance required to obtain the permit from the New Mexico Environment Department for SFSWMA operations or that may be necessary to comply with other laws, rules and regulations. SFSWMA is liable for all matters and obligations concerning the landfill and BuRRT. But if such liability reasonably can be traced to use of the landfill or BuRRT by the City or the County, the user who caused the liability is required to pay the liability to the extent SFSWMA is unable to do so.

Beyond the formal approvals the City Council and Board of County Commissioners are called on to provide, appropriate City and County staff regularly attend SFSWMA Board meetings and are kept apprised of SFSWMA operations and issues by SFSWMA's Executive Director. Section 2.01 of the JPA refers to a Staff Advisory Committee made up of the Director of Finance for the City, the Director of Finance for the County, the Director of the City's Public Works or Utilities Department, the Director of the County's Public Works or Utilities Department, and SFSWMA's Executive Director. It is my understanding that this committee has not formally met for many years, with the process having shifted to City and County staff receiving information about matters coming before the Board and informal consultation as issues arise.

The JPA includes a separate provision regarding the geographic area from which SFSWMA will accept waste. Section 2.03 specifies that SFSWMA only will accept waste generated within the geographic limits of Santa Fe County unless accepting waste from outside that geographic area is determined by the Board to be appropriate, and the City and County provide approval and consent.

The final obvious topic is the rights and corresponding obligations of the City and County regarding termination of the JPA. Either party may terminate the agreement by providing notice to the other party and SFSWMA of its desire to do so. The Board then would announce its receipt of the termination notice at its next regularly scheduled meeting. The JPA would terminate no earlier than eighteen months after the date of receipt of the termination notice is announced by the Board. The terminating party would have the right to use the landfill and BuRRT for a period of up to five years from the date of termination, and use would be governed by the terms of the JPA during that time period. The relationship also may be terminated by mutual agreement of the City and County. Should that occur, the process for termination would be governed by an agreement the City and County would enter for that purpose. All of this is set forth in Section 7 of the JPA. The final provision of Section 7 specifies that the City and County have a fiduciary responsibility with respect to operation of SFSWMA, the landfill and BuRRT.

APPENDIX C

Recent History of Solid Waste Management in Santa Fe County

Brief Recent History of Solid Waste Management in Santa Fe County

Year	Event
1990	Environmental Control Inc. (ECI) launches first curbside residential recycling program in City of Santa Fe
1995	Santa Fe Solid Waste Management Agency (Agency) created by Joint Powers Agreement
1997	Caja del Rio Landfill opens; City Transfer Station opens; Paseo de Vista (City) & Agua Fria (County) Landfills close
2000	City takes over residential recycling collection; ECI continues to process / market materials
2002	City ends contract with ECI & sends recyclables to City of Albuquerque Intermediate Processing Facility (IPF)
2004	Agency commits to develop local Materials Recovery Facility (MRF)
2007	Agency takes over City Transfer Station under 20 – year lease agreement
2008	City Transfer Station becomes Buckman Road Recycling & Transfer Station with MRF capability

Disposal Background

In 1976, the U.S. Congress passed the Resource Conservation and Recovery Act (RCRA). RCRA (as amended), and in particular Subtitle D, established today's modern waste management guidelines including the lining of landfills and other environmental protections. RCRA set a deadline for all non–complying landfills to close or come into compliance. Faced with this deadline, and the tremendous costs associated with compliance, the City and County elected to jointly establish a single compliant landfill and to close their two non–compliant sites (Paseo de Vista and Agua Fria). They formalized this approach in a 1995 Joint Powers Agreement which created the Santa Fe Solid Waste Management Agency (SFSWMA, the Agency) and charged SFSWMA with developing a new landfill in accordance with Subtitle D construction and operating standards.

The Caja del Rio consists of two parcels of private land (condemned to make way for the landfill) and approximately 200 acres donated by the federal Bureau of Land Management (BLM). The final site covers over 400 acres immediately west of the Marty Sanchez Golf Course. During the selection process for the landfill site the City moved forward with plans to develop a centralized, large–capacity transfer station adjacent to the Paseo de Vista Landfill.

The first cell developed for disposal at Caja del Rio, Cell 1, was placed on the northeast corner of the site. This first cell, and the next two, were built essentially at grade, even though the permit allowed for cells to be built some 35 feet below grade. The choice to not excavate was made as a result of the site being located atop a large basalt rock formation which was determined to be too costly to remove. However, by not excavating to the permitted depth, the landfill would not maximize the use of the acreage and the related economic value of more waste on the same footprint. The avoidance of excavation also made clear that the predicted 100 year life span of the site was overstated and under this approach to cell development the site would last about 50 years.

Beginning in 2002, new management at the landfill pursued excavation of the basalt for the development of a small section of Cell 4a. While successful in achieving the full permitted capacity of this cell, the cost to remove the rock proved to be a challenge to recover. The subsequent two cells (2b and 3b) returned to at–grade development. In 2004, under current management, the removal of the basalt was again pursued for the completion of Cell 4a. This effort involved the release of a Request–for–Proposals (RFP) designed to establish a semi–permanent mining operation at the landfill. The prospective contractor would be paid to remove the basalt and would then pay a royalty to SFSWMA on all materials sold from the operation. This model was more effective than the original effort in removing the basalt, but remained a costly endeavor.

Currently, Cell 4b is in use at full permitted depth. Cells 5 and 6 will be developed within the next few years and would complete the footprint of the originally permitted acreage. It is anticipated that these cells will also take advantage of the full depth to maximize their capacity and to minimize the cost per ton of disposal.

Following Cells 5 and 6, SFSWMA expects to permit part of the 200 acres of BLM land under its control. A thorough geotechnical analysis of this acreage was conducted in 2007 which showed that the basalt formation did not extend into the area. Without the challenges of basalt removal development of these future cells is likely to be less costly.

Recycling Background

In 1990 a locally–owned business established New Mexico's first curbside residential recycling program in the City of Santa Fe. Environmental Control Inc. (ECI) worked under a City contract to provide materials collection, processing, and marketing services. The County began accepting recyclables at their convenience centers and contracted with ECI for a similar set of services. Waste Management Inc. purchased ownership of ECI. In 2000, the City choose to bring the collection portion of the services offered by ECI under their own control at the Solid Waste Division. The City retained the services of ECI to process and market the collected materials. In 2002, the County issued an RFP for the processing / marketing of their collected recyclables and ECI was the only capable bidder. However, the cost of these services became a concern for both the City and County. Consequently the City and County arranged for recyclables to be processed / marketed by the City of Albuquerque's Intermediate Processing Facility. This agreement, while formalized through a Memorandum of Understanding (MOU), was limited in scope and term under the premise that a local materials processing / marketing facility would be pursued for recyclables collected by the City and County of Santa Fe.

Under the leadership of SFSWMA a study was completed reaffirming the need for a local Material Recovery Facility (MRF). SFSWMA then launched its effort to construct a MRF at the City's Transfer Station. A lease was executed in 2007 which gave SFSWMA control of the transfer station and authority to develop the MRF. In less than two years, SFSWMA opened the newly named Buckman Road Recycling and Transfer Station with a sorting and baling system to handle recyclables collected by the City and County. To assure its financial stability, BuRRT established agreements with Los Alamos County and other sources to provide processing / marketing services for recyclables from outside SFSWMA's traditional service boundaries.

APPENDIX D

Solid Waste Advisory Committee By-Laws and Procedures

SANTA FE SOLID WASTE MANAGEMENT AGENCY (SFSWMA, the Agency)
SOLID WASTE ADVISORY COMMITTEE (SWAC)
BY – LAWS AND OPERATING PROCEDURES

1. NAME

This set of By – Laws and Operating Procedures pertains to the Solid Waste Advisory Committee or SWAC as established by the Santa Fe Solid Waste Management Agency (SFSWMA, the Agency).

2. MISSION AND PURPOSE

To provide a forum for input to the SFSWMA Executive Director and staff, the SFSWMA governing Board of Directors, consultants, as well as elected representatives, decision – makers, and staff from the City of Santa Fe and Santa Fe County regarding the content of a Comprehensive Solid Waste Management Plan (CSWMP, the Plan) being developed through a project undertaken by the SFSWMA involving the City and County. The SWAC shall review and approve the Draft and Final Plan as prepared by the consultants.

More specifically, the main role / functions of the SWAC are as follows:

- Review draft text
- Offer comments, revisions
- Provide differing perspectives
- Identify and resolve issues
- Make sure agenda for action is realistic, pragmatic
- Express commitment to Final Plan
- Encourage formal adoption / approval of Final Plan by appropriate decision – makers

In summary, the overall purpose of the SWAC meetings is to build common understanding, support, and consensus for the central findings, conclusions, and recommendations of the CSWMP.

3. MEMBERSHIP

As presented in the attached SWAC Membership List, there are 16 different sectors represented on the SWAC by 22 individuals:

Sector	Number of Representatives
• Santa Fe Solid Waste Management Agency	1
• City of Santa Fe	3
• Santa Fe County	2
• City At – Large Resident	2
• County At – Large Resident	2

• Caja del Rio / Las Campanas area	1	
• Waste Haulers		1
• Private Recyclers		1
• Recycling Advocacy Organization	1	
• Reuse Organizations		1
• Environmental Organizations		1
• Sustainable Santa Fe Commission	1	
• State of New Mexico		1
• Schools		1
• Institutions	1	
• Business Groups		2

4. MEMBERS DUTIES AND EXPECTATIONS

Members are expected to attend meetings regularly; participate in discussions on topics brought before the SWAC; work collaboratively with other SWAC members, stakeholders, and involved parties; and inform themselves and the SWAC on related topics through reading of handout materials and other sources of information.

Additionally, SWAC members are expected to abide by New Mexico laws regarding public meetings, public records, and conflict of interest.

5. MEETINGS

5a. Tentative agenda, time, and location for the next SWAC meeting[s] shall be set at the end of each meeting.

5b. Minutes shall be a summary of the actual discussions and proceedings that transpired at the SWAC meeting.

5c. Minutes shall be distributed to all members and interested persons who have requested to be on the mailing list prior to the next scheduled meeting.

5d. SWAC members may submit clarification of their own comments, positions, votes or other member activity at the next regularly scheduled meeting for inclusion in the minutes of the meeting being clarified.

6. VOTING MEMBERS

The representative of the SFSWMA is considered to be a non – voting member of the SWAC. The City of Santa Fe and Santa Fe County have two voting members each. All the other sectors of the SWAC identified in Section 3 have voting members equal to the number of representatives assigned. Therefore there are 20 voting members of the SWAC.

7. QUORUM

A quorum shall be present in order to conduct the business of the SWAC. A quorum shall be a

majority of the SWAC voting members which equals 11 voting members of the SWAC.

8. DECISION – MAKING METHOD

A motion must be pending before a decision may be made. Every effort will be made to reach consensus when the SWAC is deliberating toward a decision. If consensus cannot be reached, the SFSWMA Executive Director or any member may call for a vote. The minimum number of affirmative votes for any motion to pass must be a majority of the quorum required to conduct SWAC business (see Section 7).

9. GUIDELINES FOR COMMUNITY RELATIONS

Any member of the public is welcome to attend, participate in, and provide input at SWAC meetings, at the approved agenda time. Public comments are encouraged and may be accepted verbally or in writing. Anyone who wishes to voice an opinion or present information or concerns to the SWAC may come to the meetings and / or contact the Executive Director of the SFSWMA. The SFSWMA Executive Director shall make arrangements as appropriate to assure public participation.

APPENDIX E

City of Santa Fe Sustainability Plan

Sustainable Santa Fe Plan

Building a More Sustainable Future by Looking to the Past

Adopted October 29, 2008

SYMBOLISM OF SUSTAINABLE SANTA FE LOGO

The turtle, in Native American teachings, represents Mother Earth.

The leaves on the tree of life in the center of the turtle's shell are formed from the shapes of the continents, representing the globe. Santa Fe is called out by a yellow dot. The shapes bordering the globe represent earth, water and sky.

NOTICE

Photo: *Santa Fe Plaza and the Cathedral*, Courtesy of the Palace of the Governors (MNM/DCA)

Negative Number	103021
Creator	Brown, Nicholas
Title	Plaza, Santa Fe, New Mexico
Date	1866
Format/Medium	photograph
Subject	Plazas
Source/Subject File	Towns-Santa Fe-Streets-Plaza-1
Date Digital	2006-06
Type	Image
Rights	Use information available at Http://www.palaceofthegovernors.org/photo_request.html
Order Information	To order photos visit http://palaceofthegovernors.org/photo_order.html
Publisher	Photo Archives, Palace of the Governors, Santa Fe http://www.palaceofthegovernors.org/photoarchives.html

Sustainable Santa Fe

SUSTAINABLE SANTA FE COMMISSION

Camilla Bustamante, Chair
Louise Pape, Vice Chair
Robert Haspel
Ben Luce
Claudia Pavel
Arina Pittman
Taylor Selby
Kim Shanahan
Jim Stanton
Grace Martinez

SUSTAINABLE YOUTH ADVISORY BOARD

(Coordinated by Earth Care International)
Grace Martinez, Chair
Avree Fe Koffman, Vice Chair
Maria Dominquez, Secretary
Camille Chambers
Miles Toland
Luke Hyde
Maya Valdez
Jose Vasquez
Danielle Romero

CITY OF SANTA FE GREEN TEAM

Katherine Mortimer
Nick Schiavo
Anne Lovely
Claudia Borchert
Kathy McCormick
Lou Baker
Jim Salazar
Marissa Barrett
Jack Hiatt

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Santa Fe Water Conservation Committee
Scott Pittman
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Faren Dancer
Robert Rodarte
Patricia Hodapp
Richard Fiedler
Bianca Sopoci-Belknap

Logo and Graphic Design by Valerie Chelonis.


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GUIDING PRINCIPLES

Resolution 2007-31 directs the Sustainable Santa Fe Commission to prepare a Sustainable Santa Fe Plan by October 11, 2007 that "shall include, but not be limited to, climate change, energy efficiency, building code and construction standards, carbon emission reduction efforts striving towards being a carbon neutral city, water reuse and conservation, urban agriculture, ecological restoration, and the establishment of city wide environmental sustainability standards."

Resolution 2006-54 endorses the U.S. Conference of Mayor's Climate Protection Agreement, as amended at the 73rd annual U.S. Conference of Mayors meeting, which in turn calls for reducing greenhouse gas emissions to 7% below 1990 levels by 2012 and provides 12 actions for local governments to reduce the emissions from our own operations and in the community:

1. Inventory global warming emissions in City operations and in the community, set reduction targets and create an action plan;
2. Adopt and enforce land-use policies that reduce sprawl, preserve open space, and create compact, walkable urban communities;
3. Promote transportation options such as bicycle trails, commute trip reduction programs, incentives for car pooling and public transit;
4. Increase the use of clean, alternative energy by, for example, investing in "green tags", advocating for the development of renewable energy resources.
5. Make energy efficiency a priority through building code improvements, retrofitting city facilities with energy efficient lighting and urging employees to conserve energy and save money;
6. Purchase only Energy Start equipment and appliances for City use;
7. Practice and promote sustainable building practices using the U.S. Green Building Council's LEED program or a similar system;
8. Increase the average fuel efficiency of municipal fleet vehicles; reduce the number of vehicles; launch an employee education program including anti-idling messages; convert diesel vehicles to bio-diesel;

9. Evaluate opportunities to increase pump efficiency in water and wastewater systems; recover wastewater treatment methane for energy production;
10. Increase recycling rates in City operations and in the community;
11. Maintain healthy urban forests; promote tree planting to increase shading and to absorb CO_2; and
12. Help educate the public, schools, other jurisdictions, professional associations, business and industry about reducing global warming pollution.

CITY OF SANTA FE, NEW MEXICO

RESOLUTION NO. 2008-93

INTRODUCED BY:

A RESOLUTION

ADOPTING THE SUSTAINABLE SANTA FE PLAN

WHEREAS, the US Mayors Conference Agreement on Climate Change was adopted by resolution in 2006 (Resolution No. 2006-54); and

WHEREAS, the Sustainable Santa Fe Commission was re-established by resolution in April 2007 (Resolution No. 2007-31); and

WHEREAS, Resolution No. 2007-31 directed the re-established Sustainable Santa Fe Commission to prepare a Sustainable Santa Fe Plan within six months of the adoption of the Resolution; and

WHEREAS, a draft Sustainable Santa Fe Plan was presented to the Governing Body on October 10, 2007; and

WHEREAS, subsequently, the draft plan has been revised based on guidance from the Governing Body and input from the Santa Fe community and various City committees and commissions; and

WHEREAS, the Sustainable Santa Fe Plan addresses both the City's municipal and

community-wide contributions to global warming and how the community should prepare for the effects of global warming.

NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BODY OF THE CITY OF SANTA FE that the city of Santa Fe hereby adopts the Sustainable Santa Fe Community Plan, attached hereto as Exhibit "A", in its entirety.

PASSED, APPROVED and ADOPTED this 29 **day of** October **, 2008.**

David Coss

DAVID COSS, MAYOR

ATTEST:

Yolanda Y. Vigil

YOLANDA Y. VIGIL, CITY CLERK

APPROVED AS TO FORM:

FRANK D. KATZ, CITY ATTORNEY

Jp/ca/jpmb/2008 res/sustainable plan

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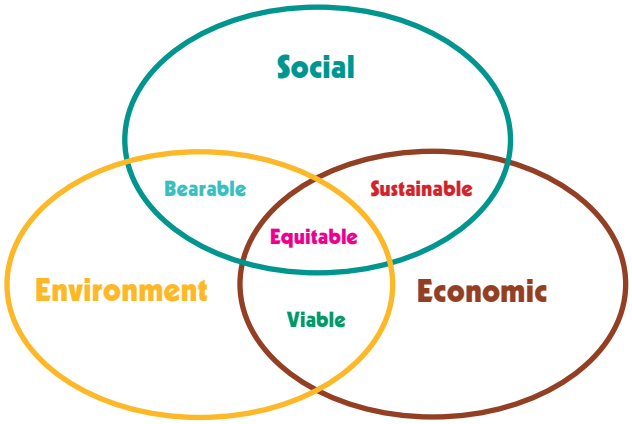
INTRODUCTION

Sustainability can be defined as taking care of the needs of the present generation without compromising the ability to meet the needs of future generations. It also can be defined as the intersection between three principals; environmental stewardship, economic health; and social justice.



This plan acknowledges all three of these principles by incorporating values beyond just the reduction of greenhouse gas emissions.

Plans that have been prepared for other communities to reduce greenhouse gas emissions typically begin with an analysis of the sources of such emissions within the community. An analysis of the municipal operations has been completed, however, that information is not yet available for the larger Santa Fe community. This plan was, therefore, prepared based on assumptions about the greenhouse gas emission characteristics of Santa Fe. Once the existing emissions inventory is complete, the implementation of the plan will be revisited to see if adjustments to the priorities are warranted.

This plan addresses more than just greenhouse gas emissions. It looks to the history and culture of Santa Fe and incorporates other values of this community. By doing this, it takes a plan that would normally have a single focus and uses it as a catalyst to promote "community sustainability" by also considering other social and economic goals. It attempts to distribute the benefits and costs of moving towards sustainability in an equitable way.

In addition to looking at how the City of Santa Fe can reduce it's contribution to GHG emissions, this plan addresses how the City can prepare to be more resilient to respond to the impacts of global warming on the community. This plan anticipates the effects of higher fuel prices and possible reductions in the availability of potable water that are expected in the coming years.

This plan draws from other studies that have been conducted by the City as well as the initiatives and priorities included in the City Council Strategic Plan. This plan is consistent with the City's Economic Development Strategy[1] which calls for Santa Fe to become the "clean energy capital of the U.S." along with attracting and developing associated small businesses in the City. This plan is also consistent with the goals of providing good jobs and workforce development and education. Each of these goals speaks to the value of making Santa Fe more economically healthy, with an eye towards providing employment opportunities for the young people growing up here, so they can stay here.

The first City Council Strategic Plan initiative is to "Support Sustainable Development and a Green City". The priorities for this initiative that are consistent with this plan include:

- Adopt and enforce land use codes and policies that promote sustainable, energy-efficient, carbon-neutral development.
- Provide for alternatives to the automobiles.
- Keep neighborhoods livable and protect rural areas from sprawl.
- Provide economic opportunity throughout the city.
- Restore and maintain watershed conditions that provide for healthy parks and open spaces, better management of storm water from all hard surfaces, water harvesting at every opportunity, and an living river system to include the Santa Fe River, and its tributaries and associated uplands.
- Implement a smart growth strategy for Santa Fe, including a water acquisition plan through 2040.

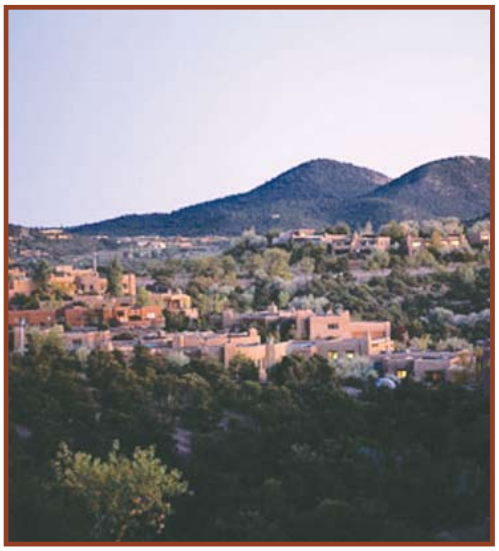
Other initiatives that this plan is consistent with include:

- Work towards a Unified Santa Fe
- Ensure Future for Youth
- Provide for a Safe Community
- Celebrate and Preserve Santa Fe's History, Culture and People
- Embrace Technology

[1] AngelouEconomics, Cultivating Santa Fe's Future Economy: Economic Development Strategy, April 2004

APPROACH

Cities across the country and around the world are preparing plans to reduce greenhouse gases (GHG) in response to global warming. While reviewing what other community action plans is useful, each community has a different set of cultural values which guide how best to move forward to reverse this dangerous trend. Santa Fe has a rich heritage of walking softly on the earth by using local materials to live a low-impact existence within this particular ecosystem. Not that all historic land use has been sustainable; overgrazing affected the local ecosystems such that they have never fully recovered. However, by examining what has worked well historically, we can imagine a future that takes the best lessons from the past and incorporates them into the present and future. Modern expectations of comfort and convenience can be obtained while neither unduly affecting the environment nor saddling future generations with the impacts of our excesses.



The Sustainable Santa Fe Commission identified the components to be included in the Plan by reviewing resolutions passed by the City Council and organizing them into topics. Measures for reducing GHG within each topic area are provided with specific goals and methods for measuring progress, where available. Success in the large range of topics covered by this plan will require commitment from the entire Santa Fe government and community including the decision-makers, administration, staff, local non-profits, businesses, schools and individual community members.

In order to assess the Plan's progress, the City needs to conduct a "Baseline Emissions Inventory" against which the efficacy of the measures implemented in this Plan can be measured. It will also allow the City to hone in on those activities that emit the most green house gases to focus efforts where it will have the biggest impact. However, in absence of a complete Baseline Emissions Inventory, the City can and should begin implementing measures that we know from experience learned in other communities, will begin moving us in the right direction.

To provide an example and inspire others, the City government should set the best example. Measures to reduce GHG from City municipal operations should lead the rest of the community. Taking the first step provides an opportunity to test the efficacy of programs before applying them city-wide. The City can also use City building and infrastructure projects to demonstrate how best to accomplish a range of city goals including how to develop housing that is both affordable and sustainable, how to leverage economic development opportunities for local green businesses, how to be sustainable while preserving historic and cultural resources and practices, and other City-held values.

This document is intended to be a "living" document. It will be updated to reflect progress in its implementation and changes in technology and lessons learned here and elsewhere. This will enable Santa Fe's sustainability program to respond to evolving conditions and new approaches in this fast-changing area.

As the City moves forward with the initiatives proposed in this plan, it is the intention to work in concert with the County, and other entities within the region, to create a regionally coordinated approach. Many of the initiatives require a regional approach and many would benefit from the economy of scale afforded by such cooperation.

1. GREENHOUSE GAS EMISSIONS INVENTORY

INTRODUCTION

In order to assess progress towards reducing GHG emissions from both City operations and from the larger community we have to have a baseline which is used to measure emission reductions as the Plan is implemented. There are several decisions that effect how progress is measured. First, the baseline year needs to be established. The Kyoto Protocol[2] suggest using 1990 as the base year and that cities like Santa Fe reduce our greenhouse gas emissions to 7% below that level by 2012. In some cases the data from 1990 has not been available and staff has had to estimate GHG levels. As an example, the City is using financial data from 1990 to approximate emissions from City operations. Obtaining community-wide data has proven to be more challenging. We are working with both the State of New Mexico and Public Service of New Mexico to get an approximation of GHG emission levels for both the current year and the 1990 base year.

Another decision is how to calculate emissions. By far the most common method is to use software produced by the International Center for Local Environmental Initiatives (ICLEI). ICLEI is a membership organization of local governments that provides the software and technical support free to members. The State of New Mexico Local Government Division paid for one year's membership to all local New Mexico governments that have adopted the US Conference of Mayor's Climate Protection Agreement, as Santa Fe has. The City is now paying for this membership and is preparing the Baseline Emissions Inventory as data becomes available.

A preliminary draft of the analysis for City municipal operations has been completed and shows that the City produces about 8.5% more greenhouse gas emissions than it did in 2000. To reach the goal of reducing emissions to 7% below the 1990 level by the year 2012, we will have to reduce our current emissions by 18.9%.

Proposed Actions

1-1. Acquire the data needed to complete the Baseline Emissions Inventory.

1-2. Use the software and other measures to assess the efficacy of measures recommended in this Plan.

1-3. Set priorities for implementation of plan actions based on their calculated efficacy, cost, requirements and additional benefits.

[2] The United Nations held a convention in 1997 in Kyoto Japan to address the concerns of global warming. Almost all of the world's nations signed the protocols which resulted from the conference, though the United States did not. However, many local governments and some states have committed to reducing global warming and most look to the Kyoto Protocols for guidance on how to set goals for GHG reductions.

2. CITY OPERATIONS

INTRODUCTION

To effectively reduce greenhouse gas emissions, significant changes to a range of functions in the municipal government operations including energy efficiency, fuel efficiency, purchasing choices, and equipment operation among others, need to occur. The City plans to lead by example with improvements throughout the City's departments, facilities and functions.

What's Being Done So Far

The following are initiatives already in place at the City of Santa Fe:

New or Renovated City Buildings: City of Santa Fe Resolution 2006-55 endorses the U.S. Conference of Mayors Climate Protection Agreement adopting high performance energy efficient building standards. The resolution requires city-funded new or renovated building construction in excess of 5,000 square feet or projects comprising upgrades or replacement of two or the three major systems (HVAC, lighting, and plumbing) be designed to and achieve a minimum delivered fossil-fuel energy consumption performance standard of one half of the U.S. average for that building type as defined by the U.S. Department of Energy. All other new construction, renovations, repairs, and replacement of city buildings shall employ cost-effective, energy efficient, green building practices to the maximum extent possible.

The Southside Library was designed with a number of sustainable features including the use of adhesives and paints that have low-VOC (volatile organic compound) content (VOCs are a greenhouse gas); high recycled content materials were used throughout the building; native and low water use plants were used in the landscaping; four cisterns around the building harvest rain water; extensive use of natural light and passive solar gain require less use of electricity and heating; a concrete floor on the south side of the building serves as a heat sink in the winter and in the summer is shaded by a carefully placed awning, thus cutting energy needs; radiant heat cuts down on energy usage; an automatic control system dims artificial lighting when not in use; state of the art waterless urinals reduce water consumption and; low "e" operable windows provide for natural ventilation.

The Santa Fe Community Convention Center project has also been designed with a number of sustainable features such that it will receive a Leadership in Energy Efficient Design (LEED) silver designation.

Existing City Buildings: The City is in the process of contracting for energy audits of City facilities. Once the audits have been performed, recommendations will be brought to the Council for

action. The City has replaced all incandescent bulbs with compact fluorescent at city hall, and as the magnetic ballasts fail in the existing fixtures they are replaced with energy star electronic type ballasts. The carpet recently installed at City Hall has a low VOC content and the paint the City uses also has low VOC content.

City Vehicle Fleet: The City is in process of becoming a Plug-in Partner. The program confirms the City's commitment to participate in the use of plug-in hybrids when the vehicles become available. The City will place a soft order for a few of the plug-in hybrids to show that there is a demand for the vehicles. Also, the City is working to obtain a compressed natural gas (CNG) solid waste vehicle as part of a pilot project. CNG Vehicles reduce greenhouse gas emissions by 23% for heavy duty vehicles on a "well to wheels" basis.

The City has recently instituted a new vehicle purchasing policy that requires new vehicles meet minimum fuel efficiency standards. In order to purchase a vehicle that exceeds these standards, the department must prove the need for a more fuel consumptive vehicle.

Solid Waste Source Reduction, Reuse & Recycling: The City works in conjunction with Santa Fe County to recycle solid waste materials. During 2006 the City's recycling program diverted approximately 3,400 tons of material from the regional landfill.

Water Division: At the April 2, 2008 Public Utilities Committee meeting it was recommended that an energy audit be conducted at the Water Division.

Wastewater Management Division Methane Recovery: The City has a grant through New Mexico Mineral and Natural Resources to analyze the digester gas which is being generated from its anaerobic digesters. Results over the last eleven (11) months show the digester gas to have approximately 60% methane by volume. A possible action would be for the digester gas to be dewatered, filtered, and compressed and then used as a replacement for the natural gas currently being used to heat the anaerobic digesters.

Replacing Traffic Signal Bulbs with LEDs: The City is completing a project to replace all traffic signal lighting for the City. The payback for this kind of bulb replacement is typically around 18 months.

Replacing Street Light Bulbs with LEDs: The City is reviewing literature for LED street lighting. At the April 2, 2008 Public Utilities Committee meeting it was proposed that all new developmens be required to have metered LED street lighting. That street lighting would then be turned over to the City for maintenance. Currently the City pays for street lighting based on the number of lights and an assumption about how much energy they use as well as the cost for PNM to maintain them. Under this new system, the City would just pay PNM for the energy used and take on the maintenance responsibility.

Proposed Actions

In addition to the recommendations in the other chapters, the City will:

2-1. Develop a workplace training program to help city staff reduce the impacts of their daily operations.

2-2. Follow the recommendations of the energy audits once completed.

2-3. Review the City's purchasing manual and propose revisions that would reduce the impact of city purchases including: reduced packaging, reduced toxicity, increased local and organic food, increased recycled material content, leveraged purchasing power of sustainable products through partnerships with the County and/or the State, increased local and low-mileage purchases, increased waste reduction (reduced disposables), increased recycling, increased water harvesting, and increased energy efficiency.

2-4. Move towards plug-in electric hybrid technology for all appropriate fleet vehicles paired with solar photovoltaic recharge stations.

2-5 Maximize hydro-electric generation capability fo the City's water system.

3. GREEN BUILDING CODE

INTRODUCTION

Buildings are a major source of demand for energy and building material manufacture and transportation produce greenhouse gases (GHG). Buildings not only use the majority of electricity produced but also contain large amounts of embodied energy, that is, the energy required to extract the resources, to process the resources into building materials, to ship the typically heavy building materials, and then to construct the building. The building sector is, therefore, a major component of this sustainability plan.

Background

Building codes, historically, by their very nature have been "prescriptive", meaning that their language has been in the nature of, "shall do this" or "shall not do that". Green codes, however, have been almost universally "performance" based, which means a measurable target is set and a menu of prescriptive elements are available to chose how one gets to the target. Within the menu of prescriptive choices it is common to make some mandatory, which means they technically could be considered "prescriptive" code items, but they alone typically are not enough to hit the desired target levels.

This paradigm shift in "code" definition has been difficult for many stakeholders to grasp, especially given the complexity of choices and trade-offs. Indeed the better designation is to think of them as mandatory "programs" rather than as the strict definition of "codes".

Another important component of the development of these programs is the recognition that they must become ever more stringent over time and that the City's commitment to achieve zero energy buildings by 2030 must be met to be consistent with adopted policies.

What is Being Done

The City of Santa Fe was the first city to adopt the "2030 Challenge" which calls for progressively reducing greenhouse gas emissions from buildings until they produce zero emissions in the year 2030. This challenge has subsequently been widely adopted by cities, counties, states and other countries working for emission reductions.

The genesis of this effort began with simultaneous actions in 2006 by both the City and the Santa Fe Area Home Builders Association (SFAHBA) as awareness increased of the urgent need to change "business as usual" construction techniques.

SFAHBA began their efforts by adopting the Build Green New Mexico Guidelines, a program developed by the National Association of Home Builders and regionally adapted by the HBA of Central New Mexico (Albuquerque). SFAHBA also formally endorsed the 2030 Challenge.

The City of Santa Fe formed a Green Building Code Work Group in the summer of 2007. Membership on the task force is comprised of City staff, home builders, architects, energy raters, code experts, and community members. Experts in areas of concern were invited to participate and offer guidance.

The Santa Fe Green Building Code Work Group weighed the benefits and drawbacks of using "prescriptive" versus "performance" codes and decided that the flexibility of a Santa Fe-based performance code allowed for more creativity and innovation and was more desirable than a prescriptive approach. It also provides the means to keep raising the bar of energy efficiency over time, in keeping with the goals of the 2030 Challenge. In this area the City of Santa intends to emerge and remain as a leader in Green Building at the national level.

The Work Group also chose to start with the guidelines of Building Green New Mexico (BGNM), a version of the national guidelines which had been tailored to the New Mexico climate and environmental setting. The Santa Fe Green Building Code Work Group analyzed that document, line by line, to regionally adapt it to the Santa Fe area micro-climate and to give credit to traditional Santa Fe design and construction techniques, many of which date back to before the arrival of Europeans on the continent.

A draft of the Santa Fe Residential Green Building Code is currently undergoing review and approval by the City. Like other similar programs it addresses a number of areas of concern, not just energy efficiency.

There are seven guiding principles of the program.

1. Lot design, preparation, and development.
2. Resource efficiency
3. Energy Efficiency
4. Water Efficiency
5. Indoor environmental quality
6. Operation, maintenance, and homeowner education
7. Global impact

Within each of the categories are a variety of measures for builders to choose. Each choice is assigned a point value. A minimum number of points are required from each section to achieve a cumulative score. The score is judged to achieve either a silver, gold, platinum or emerald level. The more points gathered the higher the score and the better the building.

Significant information and point systems for full passive solar design have been added to the guidelines to take advantage of the 300+ sunny days that Santa Fe enjoys and reflect passive solar combined with mass for storage, which was developed here in Santa Fe in the 1970s.

The BGNM guidelines are regionally appropriate for Albuquerque but are not entirely suited to Santa Fe because of a fundamental difference in climates of these locations. Whereas Albuquerque is considered a cooling climate, meaning more energy is expended to cool buildings, Santa Fe is considered a heating climate, where the reverse is true. While many other principles remain intact, that difference is significant. When one looks at the national thermal map, the dividing line winds around the upper Midwest then dips down in a loop around Santo Domingo Pueblo before heading back north deep into the western Rockies, placing Santa Fe in the same zone with southern Colorado rather than with Albuquerque.

Cold as we may be, we are getting hotter. PNM reports steady annual increases in summertime electrical demand by our market as homeowners opt for electrical air-conditioning. Long time Santa Fe builders attest to that rising expectation among clients. Since the lifespan of the buildings that will be built under this program, it is likely they will be affected by that warming trend. Therefore, the plan must consider the likelihood of an increase in the number of heating days.

Santa Fe's mandatory minimum levels are likely to be more stringent than the baseline of BGNM. In the energy section, for instance, the BGNM bronze level is considered to be 15% better than the 2003 International Energy Conservation Code (IECC). Santa Fe is looking at 30% better than IECC 2006 as a minimum standard.

A draft of the Santa Fe Residential Green Building Code has recently been made available for comment. Upon completion of the public review process, it will be submitted for consideration by the City. It is anticipated that codes for other construction types will follow shortly using this first code as a model.

Proposed Actions

3-1. Implement performance based Santa Fe Green Building Codes (Program) that recognize the need for phased-in mandatory minimums and offer incentives to builders for performance significantly above the mandatory thresholds.

3-2 Codify long-range commitments and date benchmarks included in the "2030 Challenge".

3-3. Develop green building codes and incentive programs for:

- Existing building remodels and retrofits;
- Commercial buildings; and
- Structures in historical districts, both new and existing.

Expected Outcome

If the city council approves the proposed Residential Green Building Code it will radically change standard construction practices for residences in Santa Fe. The changes will undoubtedly cause consternation within the building community, but it will serve to level the playing field for new construction. Training is recommended for those implementing the new code, including building inspectors, architects and contractors. (See the Education and Outreach section.)

Because buildings contribute so significantly to greenhouse gas emissions, the Green Building Program will begin to have an immediate impact. Since the standards will become increasingly stringent over time to keep pace with the requirements of the 2030 Challenge, the benefits will increase over time.

By examining the life-cycle costs and benefits of more efficient buildings, it can be shown that these structures are also more affordable over time. The utility costs are lower and eventually pay for the initial investment leaving a net savings for the remaining life of the structure.

Once non-residential and existing building codes are revised, even more benefits will accrue.

4. DEVELOPMENT AND ZONING CODE

Introduction

The City's Development Code impacts both greenhouse gas emissions and our ability to adapt to climate change. The layout of cities and the distribution of land uses can effect how much people need to travel. When locations of jobs, schools, shopping, and services are nearby, vehicular travel can either be shortened or replaced with alternatives modes. Also, the layout of streets, parcels, and the placement of structures on their sites effects the ability to take advantage of energy efficient design and to deliver alternative transportation modes. The City's Development Code (also known as "Chapter 14"), dictates how parcels and streets are laid out, how stormwater is handled and the use of landscaping materials. The Development Code includes the Zoning Code which dictates where different land uses are allowed, how structures are placed on their lots, and how tall structures can be built. The Development Code, including the Zoning Code, need to be reviewed for opportunities for GHG emission reductions and to facilitatate adaptation to the effects of climate change including transportation, solar gain and shading, food growing, and water harvesting and usage.

Proposed Actions

The following changes to the City's development and zoning codes are recommended:

4-1. Amend the Development Code to make access to solar exposure a property right thereby encouraging investments in solar equipment and design.

Issues to address include:

- Protection for water heating panels and photovoltaic panels are different;
- Flexibility of building setbacks to allow for maximizing solar access; and
- Should protection for solar design be actualized prior to their granting or should there be a protection for future design or installation.

The State of New Mexico has a solar access regulation that was strengthened during the 2007 legislation. However, it only protects equipment, both passive and active, that has been installed and that has been documented and filed with the County. Additionally, the only recourse if someone's solar rights have been violated is to seek remediation with the courts, an expensive and potentially lengthy process. The current City Development Code

does not address solar access explicitly. Protecting solar design options needs to be coordinated with the Building Section of this document.

4-2. Amend the Development Code to encourage use of gray water for landscape watering and other uses such as toilet flushing.

Using gray water reduces tap water use. The current building code does not preclude the use of gray-water systems, however, there are several issues that need to be addressed in order to encourage the use of gray-water including:

- Expense of retrofitting existing structures.
- Specifications of what is allowed.
- Health and safety codes effecting reuse of grey-water, including those administered by the State.

4-3. Amend the Development Code to encourage use of cisterns and other water harvesting techniques that use rainwater to reduce use of tap water for landscape watering.

Issues that need to be addressed in order to implement this measure include:

- Increased cost of construction. (However, the County already requires cisterns in new construction).
- Cisterns as part of a new program to replace the current toilet retrofit program when it is ended.
- Designs of streets and other infrastructure maximize water harvesting opportunities.

4-4. Amend the Development Code to encourage natural vegetation shading of buildings and hardscape surfaces as vegetation both absorbs CO2 and provides shading

from unwanted solar gain in the summer, reducing the need for mechanical cooling.

4-5. Amend the Development Code to require subdivisions be laid out to enable maximum feasible use of solar design, solar equipment, and the ability to use stormwater to reduce water demand.

4-6. Amend the Development Code to encourage locally grown food to both reduce GHG emissions and prepare for future rises in fuel costs to transport food into the area.

4-7. Encourage Passive Solar Building Design.

This overlaps with building code issues and would, therefore, need to be coordinated with that effort, however, guaranteeing solar access as described above would remove risks to those who want to build passive solar buildings.

4-8. Amend the zoning code to encorporate some aspects of performance zoning to allow for a greater variety of compatible uses which reduce the number and length of vehicle trips.

Traditional "Euclidian" zoning separates uses into distinct areas called zoning districts. The mixed use zoning district has limitations which don't work for all mixed use projects. Reviewing zoning may include incorporation of some aspects of performance zoning. Performance zoning allows a greater variety of compatible uses which, in turn, reduces the number and length of vehicle trips.

4-9. Encourage Development of Affordable Energy Efficient Housing.

The city's affordable housing requirement ensures that affordable housing is available throughout the city. This reduces the travel time for workers of lower income who might otherwise have to "drive until they qualify" for housing options. The more diverse the housing choices for all income levels and the more those choices are spread throughout the community, the more opportunities people have to drive less and use alternative modes of transportation more.

4-10. Amend the Development Code to require large development projects and subdivisions to provide safe bicycle and pedestrian infrastructure.

5. CLEAN RENEWABLE ENERGY

Introduction

Thoughtful selection of energy choices can reduce green house gas emissions, grow the local economy, and protect consumers from volatile energy prices. Fossil fuel power plants are one of the largest emitters of greenhouse gases. Reducing our dependence on fossil fuel will go a long way to achieving our goals of reducing climate change. There are two basic ways of achieving this goal, through efficiency to reduce demand and through clean, renewable forms of energy that generate far less greenhouse gas than conventional sources.

In addition to avoiding the use of energy from coal-fired plants, this plan calls for avoiding the use of nuclear power. Nuclear power, while emitting less greenhouse gas than coal-fired plants, creates issues of social justice from the environmental impacts of uranium extraction, which disproportionately effects native and poor communities, and has long term environmental impacts associated with the storage of spent fuels. Additionally, this source is not economically viable and relies on extensive government subsidies.

On the other hand, there are clean, renewable sources of energy that do not have these negative impacts which can be used to meet our energy needs. For example, solar farms with a total area of 3 by 5 miles would power all of New Mexico (including at nighttime, using thermal energy storage). This option has not been pursued to date because there has been almost no investment by either the government or the utility companies, however, the economics of this option are very viable. (see Appendix A)

Setting

The City of Santa Fe currently gets its electricity from Public Service Company of New Mexico (PNM). PNM is an investor-owned utility company which supplies energy in accordance with the rules set out by the New Mexico Public Regulation Commission (PRC). PRC sets the rates that PNM can charge and requires PNM to meet certain business goals including providing a mix of renewable energy sources within its portfolio and providing programs to reduce energy demand through efficiency programs. The PRC and PNM are subject to federal energy laws administered by the Federal Energy Regulatory Commission (FERC). These laws include a requirement that the capacity of the utility be sufficient such that the peak load on their system not exceed 75% of their capacity. It is this peak load that drives the demand for new power sources and is the greatest risk that PNM will endeavor to construct new coal or nuclear power plants. This peak typically only occurs

100 hours per year, between June and September, between 2 p.m. and 8 p.m. This is when the demand for cooling buildings is the highest. The extent to which we can reduce energy demand during these critical hours will help reduce the likelihood of new non-sustainable power plant construction until clean, renewable sources can be developed.

Low income people are particularly at risk as energy prices increase. Either with fossil fuels, nuclear, or a switch to clean, renewable energy, it is likely that energy prices will increase in the interim until the prices for renewable energy drops as demand increases and transmission lines are installed and paid off. Loss of energy for this vulnerable population can be fatal. Any plan must address this issue and provide a safety net for low-income people to have access to energy at rates they can afford.

What's Being Done So Far

The City government has done, and is doing, a number of things aimed at reducing the energy demands and greenhouse gas emissions from city operations. These are outlined under City Operations, Section 2 of this document. In addition, there are various green power and renewable energy credit programs emerging.

Proposed Actions

5-1. Reduce Santa Fe's demand for energy through efficiency.
The main obstacle to energy efficiency is the upfront cost. The payback time for different efficiency efforts varies. The longer the payback, the harder it is to obtain financing. A comprehensive approach to tackling these challenges for both the City and its residents would be to establish an independent "Efficiency Utility" (as states such as Vermont have done[3]). PNM and other investor owned utilities in New Mexico are (by law) starting "utility-based"

[3] http://www.newrules.org/electricity/efficiencyrt.html

efficiency programs, but unfortunately compromises in the law allow PNM to recover any lost revenues deriving from efficiency gains as well as the costs of efficiency programs, which could potentially deprive the City and residents of the financial benefits of efficiencies. The City could instead run its own program, or contract with a nonprofit to offer such services. There are several funding options for such a program.

The first step is to identify opportunities for further efficiencies to City operations. The City Council has allocated funds for this purpose

5-2. Reduce energy demand during peak hours.

a. Conduct an energy audit which tracks uses of energy by time of day and time of year. Identify those demands that coincide with PNM's peak hours (June to September, 2 p.m. to 8 p.m.) and explore options for reducing those peaks.

Such options might include using off-peak energy to freeze and store ice until the peak and then shut off air conditioners and use fans to run air through the ice and into buildings during those peak hours or configuring smart buildings to disconnect certain large loads during peak times. Also, other techniques such as solar screens can reduce interior heat build-up in summer.

5-3. Conduct community outreach, such as informational campaigns and "give-aways" of things like compact fluorescent light bulbs and other energy or water saving devices (water pumping requires a lot of energy so water savings also reduce energy demand). This could be done through a new efficiency utility.

Public education is needed to get people to understand how they can play a part in reducing energy use. By linking "give-aways" with other public education efforts, you can reach people who come out with self-interest as their motivation. This could be coupled with issuing challenges or competitions with prizes for people who either greatly reduce their energy demand or come up with a clever way of reducing energy demand. See the Education section.

5-4. Encourage more renewable energy and distributed generation, including concentrated solar, photovoltaic systems (PV), wind power, microturbines and cogeneration, and possibly larger distributed generation and energy storage projects that could be used to "firm" renewables and lower the need for new power plants and power lines.

Distributed generation is power that is generated in small amounts throughout the distribution grid such as solar panels on rooftops. Photovoltaics are particularly attractive in Santa Fe due to the number of sunny hours and the coincidence of sunny times with peak loads. Microturbines with cogeneration can utilize natural gas with efficiencies of 80% or more. Large, high efficiency diesel generators could provide energy when the intermittent energy of solar or wind is low. Thousands of PV and wind systems are now available, and these can be backed up with generators powered with biodiesel (which can be produced from algae very efficiently in New Mexico and is anticipated to be available commercially). In this way the fuel-based distributed generators keep the grid reliable and somewhat cleaner, while the renewables dramatically reduce the fuel demand of the fuel-based generators.

The State of New Mexico now offers income and sales tax incentives to residents who install solar, and the PRC allows residents to feed their renewable power back into the grid for retail credit. Some recommended actions that would encourage further investment in distributed generation include:

a. Provide assistance to individuals and local businesses to understand any existing incentives to installing distributed generation within the City and guide them through the process including any forms or contacts with state offices that are needed.

b. Add a solar rights ordinance to the City's Development Code (Chapter 14) to ensure that investments in solar technology, both passive and active, are protected and are easily defended. (Current state law requires people to register their solar right with the county and they then must sue a neighbor that violates that right through the civil court system) (See Section 4, Development Code)

Encouraging more distributed generation also has the benefit of developing local businesses that install and maintain those systems. This is consistent with the City's Economic Development Strategy prepared by AngelouEconomics and adopted by the City in 2004.

5-5. Develop programs to help people install renewable energy systems.

The greatest impediment to installation is typically the upfront costs. Specific ways the City could consider to facilitate such installations include:

a. Implement a loan program that would provide residents with low interest loans to facilitate the purchase of renewable energy sources and energy equipment and energy efficiency upgrades for buildings.

5-6. Examine how the City gets its energy and consider alternatives that would reduce dependence on fossil or nuclear fuels to a much greater amount than is currently required by the NM PRC.

The PRC recently passed a requirement that PNM (and other utility companies) provide 15% of its energy by renewable sources by 2015 and 20% by 2020. While this is moving in the right direction, it falls short of what is possible. Clean, renewable energy goals are needed to avoid new conventional power plants and make a real difference in climate change. The City can be a leader in requiring more aggressive goals to ensure that no new coal or nuclear plants are constructed and that the greenhouse gas emissions from the City meet or exceed the Kyoto protocols and the intent of the U.S. Conference of Mayors Agreement on Climate Change. Possible avenues for pursuing these goals include:

a. Encourage private or public/private partnerships to develop small-scale renewable energy and distributed generation projects within the City.

b. The City could consider entering into power purchase agreements (PPA) in order to purchase renewable energy.

An agreement of this type would allow the city to obtain renewable energy at a lower cost (Third party can take advantage of tax credits and pass the savings to the City).

c. Consider the development of a regional municipal power utility that could offer efficiency programs and distributed generation, and possibly larger renewable systems, including utilizing more efficient and more ecological High-Voltage DC (HVDC) transmission lines, while still using PNM for base and backup energy supplies, with the goal of avoiding need for new generation and transmission.

d. Lobby the state government to pass laws that would allow communities to aggregate their loads and choose their own power suppliers who are providing clean, renewable energy as is being done in California with the Community Choice Aggregation program.[4]

5-7. Ensure that as energy rates rise, the low-income families in the community are not left without the means to pay for basic energy needs.

PNM can currently shut off electrical and heating service in the winter to low-income residents who are behind on their bills unless they have already been certified by the state to be eligible for LIHEAP (Low Income Heating Assistance Program), which only very few low-income families manage to obtain. Moreover, a new law may allow PNM to shut off service after two years even if they are certified by LIHEAP based on their payment record. The City of Santa Fe could:

a. Require any utility serving Santa Fe, prior to disconnecting a City resident, to notify the city's affordable housing office and provide the opportunity to determine if the household meets the criteria that would prevent their utilities from being disconnected.

b. If the resident earned too much to qualify but still not enough to pay the bills, the City could identify non-profits or develop a funding source to assist such residents.

5-8. Enhance the State of New Mexico's program for assisting low-income families with weatherization with complementary programs, including energy-efficiency.

The State has a weatherization program which reduces the cost of weatherization projects for people with low-incomes. However, many such people do not own their homes and cannot do some of the more invasive weatherization projects that could reduce their energy demands. Moreover the State's Program is very small and largely dependent on inconsistent federal funding. The City could:

a. Establish a minimum weatherization standard that existing structures would be required to meet either at sale and/or by a specific time in the future. Low-income owners and owners that commit to renting to low-income tenants could be provided assistance either from the State or some other mechanism.

b. Lobby the State Legislature for increased funding of low-income weatherization programs.

c. Investigate alternative low-cost methods of weatherization and efficiency, and promote the preferable methods.

[4] http://www.communitychoiceenergy.org

6. TRANSPORTATION

Introduction

Transportation is one of the largest sources of human-made greenhouse gases (GHG) emissions according to the U.S. Department of Energy and the Environmental Protection Agency.[5,6] The New Mexico Environmental Department estimates that, vehicles account for about 17% of GHG produced in New Mexico.[7] Transportation is a broad topic which includes both the transportation of people and the shipping of goods and materials both into and out of the community.

Aviation emissions are significantly greater than with other modes of transportation for both people and freight. International agreements are pending on how to calculate aviation emissions. Calculations will eventually need to be incorporated into our emissions reduction plan, but for now, reducing air travel is only a generic, un-quantified goal.

In terms of moving people, the opportunity now is to transform from a car culture, to one that moves at many speeds simultaneously: an environment filled with pedestrians, bicyclists, drivers of low speed electric vehicles (LEVs), scooters, plug-in hybrid electric vehicles (PHEVs), and busses and trains operating on alternative fuels. An increase in the amount of non-motorized transportation has the added benefit of increasing health in the community both from reduced air pollution and increased exercise.

Improving transportation of people affects, and is affected by, the inter-relationship of land uses. When shopping, schools, jobs and services are close to residences, the number of non-motorized trips can be more easily reduced. (See Section 4, Development and Zoning Code.)

Goods and materials that are imported from long distances have "embedded" in them extensive amounts of transportation-associated energy and greenhouse gas emissions. Typically, the shorter the distance, the less transportation embedded energy the material has. The extent to which goods and materials can be produced locally with comparatively little investment in fossil fuel generated energy, the amount of embedded energy and greenhouse gasses is also reduced. Of particular importance are those goods and materials that must come a long way, are heavy and are consumed in large quantities. Food has high embodied energy because it travels long distances, is heavy, and is consumed in large quantities continuously. (See Section 10, Food Systems.) While food is of major importance, all consumption of goods shipped in is a concern. The more local needs are met with local resources, the more embodied energy from travel is reduced.

Fuel efficiency and alternative fuel choices affect the movement of both people and goods and materials. When comparing fuels with each other or with other forms of transportation, it is important to look at the energy and environmental impacts from "well to wheel". This includes the energy and environmental impacts from extracting the fuel, processing and transporting it, any pollution created from using it, and disposal of any residual by-products.

What's Being Done So Far

The Federal government has mandated minimal improvements in vehicular emissions. Further reduction requirements are expected, though not to the level needed to effectively reduce greenhouse gas emissions.

The Santa Fe Metropolitan Planning Organization (MPO) is the organization with the broadest responsibility in Santa Fe transportation matters. Created in 1982, the MPO covers an area that includes the City of Santa Fe and the surrounding area. It coordinates with regional, state and federal transportation authorities and is funded, in part, by the same. The MPO is mandated to meet federal requirements under Title 23 U.S.C. and the 2005 Federal Act referred to as SAFETEA-LU. The issues covered under these mandates include safety, traffic, freight moving efficiency, intermodal connectivity, and environmental protection.

The MPO is assigned to develop a long-range transportation plan every five years or less, as a means to measure progress towards sustainability of the transportation sector.

[5]http://www.eia.doe.gov/cneaf/alternate/page/environment/chap3.html
[6]U.S. Environmental Protection Agency. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990 – 2005. Washington, DC. April 15, 2007 (http://www.epa.gov/climatechange/emissions/usinventoryreport.html)
[7]www.nmenv.state.nm.us/aqb/GHG/documents/CleanCarStandardsFactSheetFINAL.pdf - 2007-09-10

Initiatives already in place, both public and private, which are to be continually supported and developed, include the following:

- Santa Fe Trails bus system with 8 routes covering the entire city. The use compressed natural gas (CNG) as fuel means lower emissions and lower cost of operation. Busses are equipped with racks for bicycles, which strengthens the multi-modal web.
- Park and Ride (State): low cost shuttle service between Santa Fe, Los Alamos, Espanola and Albuquerque. Monthly Park and Ride pass holders ride Santa Fe Trails for free. (Note that the route between Albuquerque and Santa Fe will be discontinued once the Rail Runner commuter train service is implemented).
- North Central New Mexico Regional Transit District (NCRTD): filling the gaps between the state Park and Ride, Santa Fe Trails, and other regional transit systems. Currently, the NCNMRT covers three (3) cities, four (4) counties, and five (5) reservations.
- Santa Fe Ridefinders (City): helps people to find carpoolers and vanpoolers. The City website also connects interested parties to erideshare.com.
- City employee shuttle van from remote parking area.
- New Freedoms (City): curbside transportation program for seniors and the disabled.
- Shuttle services for special events (City) from remote parking.
- Growth of hybrid vehicle market.
- Local availability of alternative fuels including B20 (a biodiesel blend of 20% biodiesel plus 80% fossil fuel diesel); ethanol blends: E10 and E85 and CNG; 100% SVO (straight vegetable oil) fueling station in Albuquerque.
- Southern New Mexico Railway and The Rail Runner operating on B20 fuel.
- Grassroots movement of citizens running their vehicles on B100 and straight vegetable oil.
- Adoption of "Complete Streets" design in city planning; Complete Streets systems safely accommodate car, bicycle and pedestrian traffic along the same roadways.
- The Bicycle and Trail Advisory Committee is charged with evaluating the 1993 Bicycle Master Plan and the trail portion of the Parks, Open Space, Trails and Recreation Master Plan and advising the City staff on measures needed to expedite the plans' implementation. The Arroyo Chamisa, Railtrail, Acequia Madre and river trails are major trail spines in the City. The Arroyo Hondo Trail is the major trail spine in the County.
- Bike to Work Week events.
- Increased bicycle use among adults; increased signage and road markings for bicyclists; increase in groups promoting riding.
- Availability of electric vehicles, particularly low speed EVs.
- Zero emissions delivery and hauling services.

The following projects under current development are key to City sustainability efforts:

- Rail Runner train service providing commuter service between Santa Fe and locations south including commercial and transportation centers in Rio Rancho, Albuquerque, Los Lunas and Belen. The Santa Fe extension will open late in 2008.
- Multimodal transportation hubs at NMDOT (Alta Vista Street) and downtown at the Railyard.
- Additional Railrunner stations are planned for the 599/25 intersection, St. Francis and Zia Road, and on Richards Ave. near SFCC. These locations are the best choices in light of the sustainability goals of the City. These stops are most accessible to travelers in regions outside of Santa Fe who need not enter the City to access the train to travel south. The population in the south part of the city would benefit by access to the rail going south and also north into the City. All of the Rail Runner stops could be the anchors of an eventual intracity rail system.
- Coordination of city vehicle purchases through the recently appointed energy efficiency staff position.
- City vehicles replaced over time with high efficiency and alternative fuel vehicles (CNG, B20, or electric). The free shuttle for city employees (from remote parking) replaced with an alternative fuel vehicle.
- Santa Fe school district pursuit of biofuels for busses.

- Continued development of the trails network including completion of the trail along the rail tracks from the downtown Railyard to Rabbit Road and eventually to Eldorado.

Proposed Actions

An overall goal of this section is to reduce the GHG emissions from the personal transportation. This will require establishing and supporting City, State and federal initiatives.

6-1. Establish mechanisms and provide support for initiatives that increase the variety and use of mass transit.

Increase Santa Fe Trails trip frequencies from current levels to every 15 minutes on key routes to increase ridership. Santa Fe Trails is currently performing an evaluation of its system that will identify additional actions to increase ridership. Park and Ride can be expanded to serve more areas with increased hours of operation. Groups, including large employers, schools and institutions can be targeted for customized mass transit services similar to how special events are addressed. Investigate options for other types of public transit including trams, trolleys and fixed-rail systems.

6-2. Prioritize zero emission transportation including walking, bicycling, and Electric Vehicles (EVs) both low speed and high speed. EVs include scooters, motorcycles, three-wheeled vehicles, golf carts, ATVs, cars and trucks that operate on electricity.

a. Establish safe transportation routes for all forms of zero-emission transportation and provide recharging stations for electric vehicles powered by clean, renewable resources.

Low-speed EVs which are currently available are street legal vehicles that can travel on roads designated as 35 mph and they can cross roads with a 40 mph designation. Designated routes could be established that form a network throughout the City.

b. Offer free or very inexpensive bicycle and/or EV rental systems.

Establish a system where patrons can rent a bike or EV and return them to any other station within the City.

c. Place bike racks throughout the city.

Bike racks should be available every 1000 feet in dense commercial areas, in all strip malls, professional plazas and larger retail outlets. Ten percent of these racks should have (working) air pumps.

d. Expand parking availability and provide opportunities for recharging zero-emission vehicles.

e. Continue the design and construction of a comprehensive pedestrian and bicycle trail system throughout the City.

f. Improve sidewalk conditions and ensure they meet ADA standards.

g. Increase the bicycle carrying capacity of Santa Fe Trails buses.

6-3. Encourage carpooling.

Provide incentives to car pool. Utilize self-directed information sources provided via the internet and other sources to identify ride shares.

6-4. Encourage alternative fuels when they're shown to produce less GHG than gasoline or diesel and when their production does not negatively impact food production. Where appropriate, encourage their production locally.

Compressed natural gas has been shown to produce less GHG per mile driven, when analyzed from well to wheel, than gasoline or regular diesel. Some alternative fuels currently consume more energy to manufacture and deliver than they ultimately produce. Ethanol blends haven't proven to be efficient and are now falling out of favor. As new fuels are introduced, they need to be tested under normal conditions in Santa Fe to determine how they stack up against other alternatives.

Current demand for biodiesel grew from just about zero in 1999, to 300 million gallons in 2007. Additional options using coal fired utilities can use algae to sequester CO_2 emissions, and in Farmington they are experimenting with converting this algae into fuel. Another example, methane recovered from landfills and agricultural waste can also be converted into transportation fuel.

Waste cooking oil can be used as a fuel for converted diesel vehicles and it can be processed into biodiesel and biodiesel blends for use

in any diesel vehicle. A small percentage of community members and businesses will be interested in pursuing these cost-effective and sustainable technologies if information, expertise and recycled oil were more readily available.

6-5. Support the development of businesses including sales and service businesses that use, sell, and/or promote lower, low and no-emission transportation.

Support transport of people and goods that use low or zero emission vehicles. Offer incentives to both the supplier and the consumer for high MPG vehicles. Prepare for a future transportation sector dominated by electric vehicles. Address the need for transportation with an eye for reducing or eliminating that need.

6-6. Seek grants and other financial incentive programs to implement various transportation action items, including bicycle, driver,and pedestrian safety education.

For example, the EPA has designated $1.5 for New Mexico to promote school district use of biodiesel. Also, the City has recently received a grant from New Mexico Energy Minerals and Natural Resources Division to purchase an electric vehicle for City use.

6-7. Implement "Complete Streets" including retrofitting existing streets where the width of the right-of-way allows.

Existing 4 lanes roads can be converted to 2 lanes roads where the number of daily vehicle trips allow so that separate paths for non-motorized transportation can be provided.

6-8. Continue and promote the construction, installation and implementation of on-road facilities for use by bicyclists as a safe alternative means of transportation including but not limited to signage, sharrows, "road diets", bike lanes and similar facilities where appropriate on the and existing roads and streets, especially where they integrate with public transportation.

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Coop America's Sustainable Transportation Guide: www.coopamerica.org/pdf/caq64.pdf

Clean Cities Initiative, Albuquerque based. Frank Burcham. loecleancities@comcast.net. 856-8585. Available for presentations for fleet managers and auto sector as well as general public.

California Cars Initiative, includes list of EV converters: www.calcars.org

7. ECOLOGICAL ADAPTATION

Introduction

Climate change is already beginning, and the coming decades are anticipated to be dominated by major ecological changes. For New Mexico, the following conditions are anticipated:

"Projected climate changes by mid- to late-21st century include: air temperatures warmer by 6-12°F on average, but more in winter, at night, and at high elevations; more episodes of extreme heat, fewer episodes of extreme cold, and a longer frost- free season; more intense storm events and flash floods; and winter precipitation falling more often as rain, less often as snow. Some climate models project that average precipitation will increase, while others predict a decrease. However, recurrence of a severe multiyear drought like that of the 1950s is likely some time during this century."[8]

Fundamental changes in climate will result in serious implications for soil, water, plants, and animals. As temperatures rise, the New Mexico report defines some of the impacts, including: local losses of native species, changes in the timing of life events such as migration or initiation of breeding, reduced local biodiversity, stranding of trees in unsuitable habitat by rapid climate change, significant increases in evapo-transpiration, more massive diebacks due to drought stress, more catastrophic forest fires, increased pest risks, reduction of mountain snow packs, and peak spring runoff from snowmelt shifting to earlier in the season.

The following text lists major environmental impacts that are expected, and indeed already beginning, from climate change, and provides a brief selection of possible actions to help mitigate these changes.

ENVIRONMENTAL IMPACTS OF CLIMATE CHANGE[9] AND SELECTED ACTIONS FOR ADAPTATION

Increased Temperatures/ Less Snow

- Selection of heat-tolerant and warmer zone plants, including food-producing plants, recognizing that plant zones are already shifting;
- Greater plant diversity for prevention of massive die-offs from monocultures;
- Utilization of a balance of annuals for effective plant adaptation to changing conditions; and
- Incorporating biological and architectural shading techniques to reduce increased temperatures and urban heat island effect.

Increased Evaporation

- Consistent organic mulching on bare soils;
- Increased ground vegetation for soil protection and carbon sequestration; and
- Appropriate watering methods. (see Water Conservation)

Increased Risk of Drought/ Earlier Runoff from Mountain Snowpack

- Increased use of water harvesting and recycling of greywater, nd possibly grey/black water reprocessing;
- Maximization of methods for absorption of rain water into the ground with such techniques as swales and gabions, etc.; and
- Selection of plants that tolerate drought as well as inundation.

More Massive Dieback of Plants and Species Extinctions

- Increased plant diversity to ensure survival of the majority of plants;
- Protection of species diversity, including for biological pest control; and
- Protection of pollinators.

Increased Risk of Extreme Weather Including Flooding

- Wind protection from increasingly stronger winds using biological and architectural techniques; and
- Utilization of aquifer recharge areas and drainage for floods where appropriate.; and

Excessive Carbon in the Atmosphere

- Build up organic carbon materials in soils and plants
- Protect soil carbon from unnecessary loss from soil disturbance, including building sites.

[8]http://www.nmenv.state.nm.us/aqb/cc/Potential_Effects_Climate_Change_NM.pdf

[9]http://www.nmenv.state.nm.us/aqb/cc/Potential_Effects_Climate_Change_NM.pdf

Taking effective actions to adapt to the multiple impacts of climate change offers the opportunity to also curtail carbon dioxide going into our atmosphere. Carbon dioxide (CO2) is naturally sequestered by living plants and by healthy soils. As plants decay or as soils are disturbed, CO2 is returned to the atmosphere. By increasing the number of growing plants and minimizing non-restorative soil disturbance, there is a beneficial impact on greenhouse gases. The issue, however, is complicated by the fact that as temperatures rise, soils release more carbon[10], so actions are needed to counter heat-induced carbon releases. Therefore action is required just to remain carbon stable over time.

Other advantages exist, as well. When additional plants produce food, they also reduce the large emissions associated with industrialized food transported thousands of miles into the area (See Section 10, Food Systems). Plants and trees can also help reduce the "urban heat island effect" where the temperatures in a city are higher because dark surfaces like parking lots and rooftops are absorbing the sun's radiation.

A complete plan for climate change will include both the sequestration of carbon in soils and plants as well as multiple methods for mitigating the unprecedented ecological changes that climate change is bringing us.

What's Being Done So Far

Santa Fe has an array of ecological programs within its urban fabric. Adapting to climate change requires an overall program to coalesce existing efforts and add additional actions to place ecological preservation and adaptation as the top priority.

The City of Santa Fe's actions thus far include:

- Encouragement of on-site storm water management.
- Implementation of an initial pilot program installing permeable pavement to reduce urban runoff and increase groundwater recharge.
- Requirements for the protection of significant vegetation (trees).
- Landscape ordinance requirements.
- Utilization of yard wastes for mulch.
- Planning for the restoration of the Santa Fe River.

[10]http://www.ctv.ca/servlet/ArticleNews/story/CTVNews/1126185062975_114/?hub=SciTech

Proposed Actions

The City of Santa Fe has the opportunity to proactively adapt to coming climate impacts. Effective planning and actions from multiple departments now can be a powerful force for greatly reducing future negative impacts. Environmental degradation is already occurring, yet taking action now can help us adapt. Utilizing biological and social solutions can offer opportunities over energy-intensive technological solutions to climate change. The benefits include:

- Reduction of CO2 emissions from current methods of soils, water and plants management, and from future increased releases of soil carbon as temperatures increase.
- Reduction of the "urban heat island effect", making our city more comfortable as temperatures rise and reducing the need for energy-intensive air conditioning.
- Increased coordination with other components of this plan to maximize the synergistic benefits of all.
- Improved utilization of resources with prevention rather than cure by reducing crisis management in the future when these impacts increase in intensity.

7-1. Set an overall city-wide goal of adaptation to climate impacts.

- Define the varied environmental impacts of climate change, beginning with the chart on previous page.
- Select the appropriate actions based on input from multiple sources.
- Write and adopt the adaptation plan that includes measurable goals.
- Widely publicize the goal of adaptation to create resiliency within the Santa Fe community to respond to the effects of climate change. (See Section 11, Education and Outreach.)

7-2. Create systems that maximize use of rain and storm waters for plant support and groundwater recharge.

- Increase permeability of our urban environment by altering pavement, rooftops and other hard surface, using multiple techniques.
- Restore waterways (Santa Fe River and arroyos) to increase the recharge into our local aquifer, which presentlysupplies about one third of our city's water.
- Improve water infiltration to planted areas and into the aquifer, including upgrading existing standards of on-site storm water management to aim for 100% on-site runoff water filtration and uptake by the plant roots, not just detention and evaporation via detention ponds.
- Design water systems to both prevent erosion (which releases carbon into the atmosphere as well as destroys plant life) and protect the aquifer by utilizing soils and plants to help purify the water. Include such techniques as street pavement and parking lot retrofits, bioswales, infiltration galleries, etc.

7-3. Reduce "urban heat island effect"[11].

- Reduce, alter, and manage parking areas, roof tops and roadways to increase water absorption and water utilization by plantings.
- Alter street design to allow for narrower lanes which can be shaded with trees whenever possible
- Reduce dark surfaces, including providing biological and architectural shading, adding more white roofs and roof gardens, etc.
- Increase planted areas while reducing heat-absorbing graveled areas.
- Plan for increased shade with biological and architectural design, including trees that will shade dark surfaces such as roads.

7-4. Protect soils as the foundation of adaptation to the impacts of climate change.

- Manage soils to increase carbon, support plants, and utilize water effectively. Techniques include adding organic matter, adding beneficial organisms, designing appropriate water utilization, natural soil building

[11]http://www.epa.gov/heatisland/

techniques, increased appropriate vegetation, ending the use of herbicides, pesticides and other chemicals, etc.

- Provide soil protection from intense sunlight where appropriate by shading from trees and shrubs, adding mulches, increasing groundcover, etc.
- Create and enforce a strong soil protection ordinance to reduce carbon releases into the atmosphere by significantly reducing the amount of land being disturbed, unless for ecological improvements.

7-5. Improve support for biodiversity with adaptation techniques.

- Protect diversity of existing urban plantings, both cultivated and native by taking care of the existing Urban Forest (plant conglomerates on streets, parks, private yards and around commercial and public buildings). For a successful adaptation to the future changes, the Urban Forest needs to be studied, inventoried, managed, old trees replaced, new plantings vigorously encouraged. In order to realize this, there needs to be a guardian for the whole ecosystem; and an approach that is open to participation by the municipality, neighborhoods, landscape professionals, gardeners and government agencies.
- Develop a list of plants that can tolerate heat and extreme weather events by creating the Plant Adaptation Collaboration (PAL), a group of knowledgable individuals who will select plants that can better adapt to the changing conditions, including zone changes.
- Revise existing City ordinances to encourage planting and site designs that:

- Maximize diversity of adaptable plants;
- Use minimal amount of pavement or other hard surfaces to keep site's permeability maximized by other design solutions;
- Eliminate inappropriate plants (high water use, low heat tolerance, etc) that are not able to adapt;
- Provide full-season support for pollinators, beneficial insects, amphibians, and birds, whenever possible;
- Reduce use of cloned or genetically modified plant material which is most frequently sold by many nurseries and seed companies as they are not as adaptable and can be chemically-dependent;
- Provide a certain percentage of food for humans; and
- Maximize shading of hard surfaces, shelter public areas from winds and exposure to the elements, reduce glare and heat absorption by buildings and pavement.

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CPULs – Continuous Productive Urban Landscapes. Designing Urban Agriculture for Sustainable Cities. Andre Viljoen (ed.) 2005. Architectural Press. Summary at: http://www.energybulletin.net/17603.html

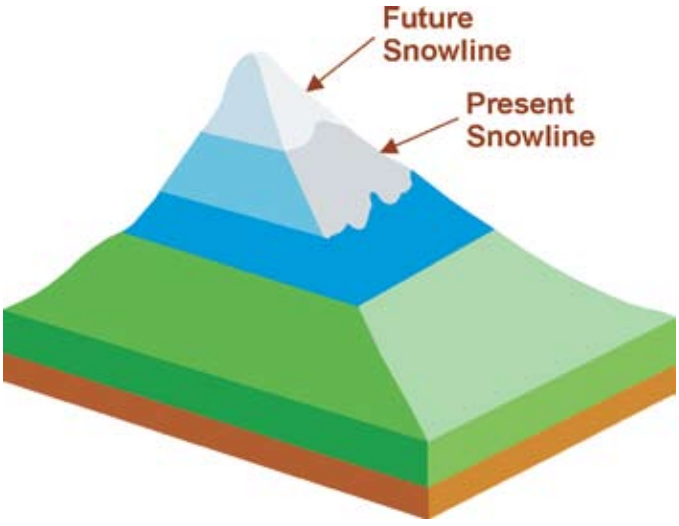
http://www.epa.gov/sequestration/faq.html

8. WATER CONSERVATION

Introduction

The Energy required to pump water from its source to its destination is significant.[12] The energy source used for water pumping typically results in greenhouse gas emissions, depending upon the source of energy used as discussed in Section 5, Clean Alternative Energy. The City of Santa Fe has made significant efforts to reduce water use through the replacement of water-hogging toilets, appliances, and landscape with lower consumptive models have resulted in a significant reduction of household water consumption. City water conservation programs have resulted in a drop from 160 gallons per person per day to 103 gallons over a ten-year period.[13] However, more measures can and should be implemented, especially as the number of older toilets available for retrofitting dwindles.

In addition, global warming is expected to result in more frequent and severe droughts in the southwest. It is also expected to result in greater evaporation from lakes, reservoirs, soils and plants; less runoff and more soil drought for a given amount of precipitation; smaller mountain snowpacks; earlier snowmelt; and reduced groundwater recharge.[14] The graphic below shows that the snowline (the level at which snow falls) will go higher into the mountains, reducing the amount of snowpack available to recharge our reservoirs.[15]



Warmer temperatures mean less snow, and thus less snow melt, to provide water supplies closer to the time of greatest use in the summer. Our mountain snowpacks are New Mexico's biggest "reservoirs."

[12]DOE, http://www1.eere.energy.gov/femp/water/
[13] Water Update 2007, City of Santa Fe, Sangre de Cristo Water Division

Water conservation, therefore, is not only needed to reduce the GHG emissions of Santa Fe but also to prepare us for a more water-scarce future. Such an effort requires the involvement of the entire community. This section of the Sustainable Santa Fe Plan sets out the Water Conservation Committee's philosophical framework as well as specific action recommendations.

The Water Conservation Committee, after five years of involvement with the issues, believes that it is necessary to move beyond conservation education and rebates. The city needs to define and develop an integrated strategy to accomplish long-range water policies.

Background

Fresh water resources are finite and the world's hydrological system is complex and interconnected. Fundamentally, the underlying city water policy must recognize that we do not live in a vacuum. This section addresses some of the regional and planetary issues that should be considered in any policy.

Use of electrical energy produced by either coal or nuclear, consumes vast quantities of water[16]. As described in Section 5, Clean Alternative Energy, these technologies also contribute substantially to greenhouse gas emissions. Each KWh consumes 2 gallons of water and produces 2 pounds of CO2. Our local use of electricity generated at Four Corner's plants reduces water available for the San Juan/Chama diversion—water Santa Fe counts on as a future water source. Thus, encouraging local energy conservation protects water, here and everywhere.

The new Buckman diversion electrical demand for operation and pumping has been roughly estimated in an annual range from 2 to 7 megawatts. This demand would have the effect of producing between 10 to 35 tons of CO2 and depleting 20,000 to 140,000 gallons of water if supplied by the energy sources that currently serve the City of Santa Fe. Sustainability would rely on solar or wind power to pump Buckman's water uphill from the Rio Grande.

What's Being Done So Far

The City of Santa Fe has made significant efforts to reduce water use through the replacement of water-hogging toilets, appliances, and landscapes, resulting in a significant reduction of household

[14]http://www.nmdrought.state.nm.us/ClimateChangeImpact/completeREPORTfinal.pdf

[15]www.nmenv.state.nm.us/aqb/cc/Potential_Effects_Climate_Change_NM.pdf - 2006-12-12

[16]EPA, http://www.epa.gov/cleanrgy/water_resource.htm

water consumption. City water conservation programs have resulted in a drop from 137 gallons per person per day to 103 gallons over a seven-year period making Santa Fe a national leader. The water conservation achieved by the toilet retrofit program has now peaked as the number of older toilets available for retrofitting dwindles. With the easier conservation actions already taken, and the pending impacts on water created by climate change, more measures must be taken.

This City's Water Conservation Office is responsible for implementing other water conservation measures including citizen outreach and education. This office is guided by the City's Water Conservation Committee who recommends policy and evaluates specific programs related to water conservation. Current water conservation programs include:

- Toilet Retrofit Program
- Rebate Programs for water efficient appliances
- Pre-rinse Spray Nozzle Program
- Moisture Sensors & ET Controllers
- Residential Surveys, Leak Investigation & Landscape Audits
- City of Santa Fe & Homewise "Watersmart Project"
- Public Outreach & Education
- Commercial Landscapers Outreach
- Compliance and Enforcemen
- Commercial Air-cooled Ice Machine Rebate
- Commercial High-efficiency Dishwasher Rebate

More information about these programs is available at the City's Website.[17]

Proposed Actions

The City of Santa Fe has already made significant inroads into lowering per capita water consumption, particularly by residential customers. This success should not be minimized, but it does reflect a focus on the "low hanging fruit." To move forward, the City will need to take a more thoughtful and strategic approach.

[17]http://www.santafenm.gov/index.asp?NID=168

8-1. Develop a Water Conservation Strategic Plan

Such a plan should:

- Recognize the necessity for all water customers (commercial, residential and industrial) to share the burden of conservation equitably.
- Better integrate (for planning purposes) the various functions currently managed by separate entities within citygovernment, including Water Conservation, Long Range Water Supply, Planning and Land Use, Billing Division, etc.
- Address the harder questions regarding water conservation, particularly the interconnections between conservation, land use and growth all within the context of climate change.

8-2. Expand Rebates and Incentive Programs.

Existing programs focus on indoor residential use. New rebate and incentive programs should address outdoor residential use as well as outdoor and indoor conservation in the government, commercial and industrial sectors. Each rebate considered should receive a cost vs. water savings analysis. One recently conducted by staff would seem to indicate that rain barrels are not a cost-effective expenditure.

8-3. Adopt New Technologies to better track water use and then help customers to conserve more easily.

New technologies can help the City to track water use and customers to conserve more easily. These can be coupled with education rebate/incentive programs, and/or ordinances to lower water use. Such new technologies include:

a. Improve billing system to better track supply-side infrastructure and water use by customers as well as to validate the effectiveness of new conservation measures.

Specific, measurable goals should drive the new monitoring program. Possible enhancements:

- Use Water Track software.
- Tie monitoring results to appropriate action by City Staff (e.g., leak repair, education, and enforcement).
- Use monitoring program to determine success of rebate/incentive programs.
- Encourage each individual household and commercial user to develop a water budget.
- Establish rate structures that measure use patterns, instead of arbitrary rates based on meter size.

b. Monitor water use with Fire Flies and Kopy Caps

On the customer side, encourage the widespread adoption of the Fire Fly electronic meter reading system in conjunction with Kopy Caps (devices that interface with the Fire Fly to provide water use information without the need to open the meter can lid). These assist in identifying leaks and overall water use at the water user's location.

c. Broaden the use of, and consider requiring, a variety of water saving appliances:

- High efficiency dishwashers in commercial use.
- Dual flush toilets, which use different amounts of water for liquid and solid waste.
- Pressure regulation valves to automatically reduce the pressure from the water supply main to customer.
- Site-specific rather than whole house water heaters so water is heated only when and where it is needed.

d. Reduce unnecessary public and private landscape watering

This can be accomplished through the use of:

- Moisture sensors.
- Rain sensors.
- Evapotranspiration (ET) controllers to monitor factors such as relative humidity.
- Tighten existing requirements and/or develop new programs for water reuse systems in commercial laundries and car washes.
- Require individual household water budgets which allow families to set personal priorities.

8-4. Proactively Plan and Run Tests to Identify Leaks. When leaks are found, repair, as necessary.

8-5. Expand existing residential leak investigation/survey program to include other water customer sectors.

8-6. Expand Public Outreach and Education. (see Section 11, Education and Outreach)

The City must lead the water conservation effort by example. As the most readily visible user of water the City Parks Department should be a leader in conservation. This is a fundamental requirement of any public outreach and education program. The Water Conservation Committee suggests the following additional programs and steps in this area:

a. Require Irrigation Certification from the New Mexico Irrigation Association for some irrigation installations

- City parks staff
- Residential landscapers
- Commercial landscapers

b. Improve the City website to include water conservation information for residential and commercial customers that is both useful and interactive.

c. Create and maintain public demonstration gardens throughout the City.

- Establish an annual/periodic xeriscape (low water use landscaping) contest.
- Establish a pilot stormwater reuse site.

8-7. Develop a Strong Compliance and Enforcement Program. This category is broad, encompassing everything from policies and guidelines to ordinances.

- Once the water-use monitoring program is in place as described above, empower and fund the Water

Conservation office to take action when waste or abuse is evident.

- Develop an overall reuse plan for stormwater. (See Section 7, Ecological Restoration)
- Explore measures to encourage or require water-conserving retrofits upon the sale of a residential or commercial building.
- Adopt rainwater harvesting and permeable paving ordinances.
- Explore technologies which encourage the reuse of gray water and black water in both new construction and existing buildings.
- Adopt ordinances requiring and standards for both passive and active water harvesting

8-8. Expand Support for Water Conservation Activities. While most of the education programs are presently included in the Water Conservation Office budget, the original rebate and incentive funds came from a one-time water conservation impact fee on water bills. There needs to be a consistent source of funds to accomplish high priority items.

8-9. Initiate a Program to Maximize Water Harvesting. Rainwater can and should be captured by plants and soil before evaporating.[18] Techniques should be considered such as:

- Requiring the top of planting beds be lower than permeable surfaces like roads, parking lots and walkways.
- Providing weepholes in curbs to allow surface water to flow to planted areas

8-10. Initiate a Program to Process and Utilize Water for Multiple Purposes.

Examples of communities using water for multiple uses can be used as examples for a program for Santa Fe. Cloudcroft, New Mexico will have a water reprocessing plant[19] and John Todd's Eco Machines[20] are in use around the world. Local sites that use innovative water conservation methods can be used as teaching laboratories.

8-11. Continue and Increase the Use of Treated Effluent. Approximately 30% of the City's treated effluent is current being used for meeting irrigation demands that might otherwise be met with potable or groundwater supplies. The City should continue to look for opportunities to supply park, open space, playing field turf, and appropriate commercial uses with treated effluent. Treated effluent also is a potential future source of supply either through return flow to the Rio Grande, storage and filtration into the ground, or direct reuse after adequate treatment.

8-12 Consider the energy requirements of any potential new water sources and seek opportunities to use clean, renewable energy sources for the energy requirements of both existing and new water sources.

[18]Rainwater Harvesting for Drylands (Vol. 1): Guiding Principals to Welcome Rain into Your Life and Landscape, Lancaster, Brad, Chelsea Green Publishing Company, 2006.
[19]http://www.ittadcancedwatertreatment.com/speacialfeature.htm
[20]http://www.toddecological.com/ and http://edition.cnn.com/SPECIALS/2007/skewed.view/dodd/

9. SOLID WASTE REDUCTION

Introduction

Solid waste results in greenhouse gas (GHG) production in two ways. First, on it's way to becoming a waste, there is embodied energy from the materials manufacture, transportation, use, and disposal. Then, as it decomposes in a landfill it produces the GHG methane. Reducing GHG from solid waste can be achieved in each step along the way from material manufacture to disposal/ decomposition.

In addition to directly creating GHG, not reusing or recycling waste results in the extraction of more natural resources and manufacture and transportation of more new products. Consumption, with its wasting of resources, has been continually growing and now is reaching such extensive and unprecedented levels that the impacts have devastating implications worldwide. From extraction of resources, to manufacture, to shipping, to use that quickly leads to dumping in a "wasted resource" site, ever larger volumes of consumer goods fill our lives for a fleeting moment and then are trashed. As one analyst stated "This is a system in crisis – a linear system on a finite planet can't continue indefinitely."[21] The world is waking up to the need for a complete "cradle to grave", or, actually, "cradle to cradle" answer.

When tracking wasted resources, embodied energy is also addressed. The adage "Reduce, Reuse, Recycle" is simple in concept, and yet a challenge to implement. Addressing all three levels aims both at embodied energy reduction as well as wasted resource reduction. With global issues, making all three the foundation of a sustainable solution is essential.

EPA has developed estimates of the amount GHG by different waste material types at each point in the material life cycle. The portions of these estimates associated with electricity used in the raw materials acquisition and manufacturing steps are based on the nation's current mix of energy sources,[22] including fossil fuels, hydropower, and nuclear power.

Measuring the GHG emissions reduction of the embodied energy of products is currently emerging here in the US. However, it is more advanced in Europe where products are beginning to carry labels stating their total embodied emissions. Over time, the US may take a similar initiative. Until then this plan encourages reducing the disposal of resource materials to the maximum extent feasible with the ultimate goal of Zero Waste.

This plan recommends the City look at the entire life cycle of waste and strives to make reductions in GHG emissions at each step to the degree it is within the City's influence to do so. This means examining how waste materials enter the waste stream and look for opportunities to reduce wastes that ultimately end up in the landfill by diverting them by waste recycling and reuse, focusing on those wastes with the greatest impact.[23] This includes examining the City's purchasing polices for City operations and how the City uses those materials, as well as addressing ordinances that may affect both residential and commercial consumers.

This Plan proposes that the governing body of the City of Santa Fe adopt a zero waste strategy for managing its waste resources. National efforts such as the Grassroots Recycling Network state the following objective for zero waste, "Zero Waste seeks to redesign the way resources and materials flow through our society. Zero Waste offers a positive alternative to how we currently use our resources. Zero Waste gradually replaces landfills with sustainable enterprises that create local jobs and local economic development." Zero Waste incorporates traditional ways of thinking about reducing solid waste which prioritizes source reduction, then reuse, then recycling, and finally disposal when there are no other alternatives. Zero Waste then takes this thinking to the next step of looking at waste as a resource.

What's Being Done So Far

The City and County work in conjunction with the Solid Waste Management Authority (SWMA) to recycle solid waste materials. The City collects recycled materials and pays a small tipping fee to SWMA who in turn sorts and sells the recycled goods. Some materials are more lucrative than others but in general Santa Fe County is able to sell all recycled goods for an average of $125/ ton. The County makes every effort to have the materials recycled as close to the collection facility as possible. As an example cardboard is being recycled at a facility in Pruit, New Mexico.

Caja Del Rio, the active regional land fill which is being utilized by the City of Santa Fe and Santa Fe County, collected approximately 84,400 tons of waste in 2006 from the City of Santa Fe alone. 3,400 tons of that were recycled which represents about 4% of the waste stream. This does not account for source reduction which is waste that never entered the waste stream such as people

[21] http://www.storyofstuff.com

[22] The emissions are based on the current national grid mix, as opposed to regional grids

[23] To make it easier for organizations to use these emission factors, EPA created the Waste Reduction Model (WARM), the Recycled Content (ReCon) Tool, and the Durable Goods Calculator (DGC).

who use reusable grocery bags, or home composting, or people who buy in bulk in re-usable containers, for example.

The City hired a consultant to perform a rate analysis for solid waste, including developing a proposed "Pay as You Throw" system that increases fees for resource disposal as an incentive to increase participation in reduction, recycling, and reuse of these resources. A recommendation to adopt a pay as you throw system was approved and its implementation is expected in fiscal year 2008/2009.

This Plan calls for evaluation of existing GHG emissions associated with solid waste management within the City of Santa Fe, and further calls for development of a comprehensive evaluation of opportunities for reduction of such emissions.

Proposed Actions

9-1. Conduct an Efficiency Analysis of the City and regional waste stream and adopt a Zero Waste ordinance[24] that recognizes the viability of gradual replacement of landfills with sustainable enterprises that create local jobs and local economic development.

From a GHG emission standpoint, the first step in moving towards Zero Waste should be ensuring the complete separation of biogenetic materials (such as food waste, paper, cardboard, wood products, yard trimmings, etc.) from the landfill. Moving beyond that to an effective implementation of a Zero Waste program requires commitment from the entire community. Therefore, a cornerstone of such a program would be a comprehensive community outreach and education program. (See Section 11, Education and Outreach).

9-2. Aggressively increase business recycling efforts, including, but not limited to, providing incentives to businesses and other organizations and facilities that reduce the volume of wasted resources from their facility by set percentages that increase over time.

9-3. Establish new City purchasing policies, and other City operations, and propose changes that would reduce waste and embodied energy, reduce GHG emissions, provide preferences for vendors that reduce waste and pollution, and provide preferences for vendors that have "Take Back" programs to reduce waste. (See Section 2, City Operations)

9-4. Work with the construction and demolition industries to develop initiatives for Zero Waste.

This will include education and training for resource diversion, and strive toward total segregation of construction resources by type and destination, and develop a system for non-separated construction waste. City policies will be developed to expedite and support this transition away from disposing of mixed materials into the landfill.

a. Investigate best uses for separated non-engineered lumber to include shredding by the City tub grinder.

b. Reject construction waste that is divertible as landfill material at the transfer station. Require that such loads be sorted and recycled.

c. Encourage the use of natural local construction materials that create few wasted resources.

Compared to today's manufactured products, local materials also have little embodied energy. (See Section 3, Green Building Code.)

9-5. Divert re-use items at transfer station.
This could include providing composting materials and worms free at the City's composting facility and encourage more reuse through entities such as Goodwill, Salvation Army, Open Hands, and Habitat for Humanity Restore or through a free flea market at the transfer station.

9-6. Switch fuels for solid waste vehicles and transfer station and landfill equipment such as the tub grinder and chippers from diesel and gasoline to bio-diesel or other fuel with less GHG emissions when the production of those fuels does not negatively impact food production. For transfer station and landfill equipment, such a switch should be completed by 2012 with possible interim goals to mixed fuels by 2009. The specific goals for vehicles are presented in Section 6, Transportation.

Biodiesel and some other fuels produce less GHG in their extraction, manufacture and use. More information on fuels is presented in Section 6, Transportation.

9-7. Prepare and conduct on-going outreach and education as described in section 11, Education and Outreach, of this Plan to strive to Zero Waste including:

[24]http://www.grrn.org/localgov/lgc_1.pdf, http://oaklandpw.com/AssetFactory.aspx?did=2123

a. Development of a brochure for consumer purchasing decisions by 2008;

b. Increase composting, and recycling participation with a goal of 85% participation rate of city residents and businesses by 2010 and a reduction in the weight of waste of 75% of the 2003 baseline by 2015;[25] and

c. Encourage people to reuse bags or containers.

The overall goal of the recycling program is to increase the recycling tonnage by 300% by 2010 and 1,000% by 2015 from current levels.

9-8. Seek funding to develop a reusable bag, with the option of stores adding their logo, along with a "Sustainable Santa Fe" logo, to encourage bag reuse. This can be combined with an ordinance restricting free bag distribution from stores.

Retail store bags, particularly grocery bags, contribute to solid waste volumes and GHG emissions. The "paper versus plastic" debate is difficult to wade through and depends upon the recycling options available to Santa Fe consumers. There are also biodegradable bags available, however, in a landfill, biodegradation generates methane gas which may contribute to overall GHG emissions. The best overall approach is to reuse bags as much as possible.

9-9. Explore opportunities to minimize packaging.

Packaging contributes approximately 32%[26] of the overall household waste stream nationally. Regulating packaging materials within the City's jurisdiction can achieve an overall reduction in waste achieved incrementally.

9-10. Explore opportunities to sell carbon offsets (credits) gained by recycling and use the proceeds to further recycling efforts.

Green Tags and the Chicago Climate Exchange are two possible vehicles for selling carbon offsets gained from recycling and other City actions designed to reduce greenhouse gases. (See Section 12, Implementation.)

9-11. Seek grant funds to conduct a landfill gas exfiltration analysis of the City's landfills including an evaluation of any potential reuse or remediation.

9-12. Expand the recycling program to add safe compostable food wastes.

These wastes can then be processed into healthy "black gold" compost, including vermiculture projects (using worms to quickly and safely convert wastes), for food production. As an example, "Growing Power" uses restaurant wastes to grow worms that feed edible fish grown year-round in greenhouses.[27] Home-based composting and vermiculture should also be encouraged.

9-13 Increase Household Hazardous Waste collection to once per quarter.

The use of fluorescent bulbs (including compact fluorescent bulbs) is expected to increase dramatically over the next 10 years. Santa Fe's landfill need to be protected from the mercury associated with these bulbs while also ensuring that residents have appropriate means to dispose of or recycle these items.

9-14. Provide for curbside collection of electronics waste (E-waste).

This can be performed by placing special cages or bins on recycling vehicles. Further, Santa Fe should provide for large item E-waste in the special a large item pickup program and work with retailers to develop collection strategies for recovery of white goods and E-waste.

9-15. Santa Fe should follow through with the "Pay as you throw" system to increase recycling participation.

Upon adoption of this system, the City should re-examine its effects after a specified period of time to determine its effectiveness and, if necessary, expand the fee differential between recycling and disposing of materials to drive participation.

9-16. Explore the feasibility of implementing a green waste collection program for both residential and commercial customers.

This should include the possible addition of curbside collection and backyard composting bins for residential customers. For commercial customers, a green waste program is needed for restaurants and grocery stores. It is important to build on what is already in place for this sector. As part of this program, attention must be given to increasing the use of compostable disposable plates, cups and eating utensils.

9-17. Review operations at the sanitary wastewater treatment plant to ensure optimal aerobic treatment.

Aerobic treatment of sanitary wastewater produces considerably less methane than anaerobic treatment.

[25]Final Report on the Feasibility of Developing a MRF at the City of Santa Fe's Transfer Station and Establishing a Regional Recycling Program.

[26]DOE: www.eia.doe.gov/kids/energyfacts/saving/recycling/solidwaste/sourcereduction.html

[27]http://www.epa.gov/reg3wcmd/composting/AlexaKielty.pdf

10. FOOD SYSTEMS

Introduction

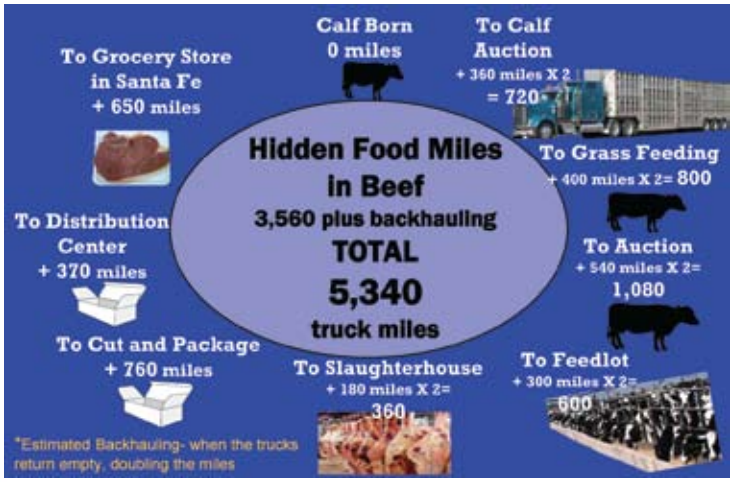
Climate change is creating both extreme weather events as well as gradual shifts in weather. Extreme weather events are happening worldwide- unprecedented droughts, huge storms, massive flooding, scorching heat, threatening crops worldwide. In 2007 flood waters covered an estimated 80% of the entire Mexican state of Tabasco, with all the crops being lost.[28] The year before, even Hatch, New Mexico had a flood that drowned chili crops.[29] More gradual changes such as temperature rises and shifting seasons are beginning to impact food growing, as well. Most of these threats are only in their infancy, and the impacts are beginning to be apparent in our grocery stores, and the trend is clear.[30]

What role does food have in creating climate change? The estimated 7% of total emissions from agriculture for the state of New Mexico[31] is misleading because this figure is merely growing food. Our modern food system includes many energy-intensive stages after the food is grown- processing, transportation, and packaging. Transportation alone is estimated to account for about 20% of all commodity shipping based on ton-miles.[32] Adding all these steps together creates our food system with huge GHG emissions. A precise figure is not available for New Mexico, but elsewhere 22% of all emissions were estimated to be from food systems.[33] California has determined that out of all the types of industries, food processing and food packaging are among the largest GHG emissions producers. Even drinks in disposable glass bottles cause substantial emissions.[34]

Food miles are surprisingly high and mostly hidden from our awareness. The following graphic shows an example of how many stages it takes to get a packaged product like a cake mix into a Santa Fe grocery store. This is only for one ingredient- wheat flour. Complete GHG emissions would also include the miles for other ingredients, as well as the emissions from all the processing and all the packaging.

Wheat Travels Over 5,000 miles from the field to the grocery store.[35]

Another example, getting a hamburger into our grocery store is shown in the graphic below. There's over 3,500 miles for the actual shipment of product (first the animal, then the meat) through the various stages of processes,[36] then add the estimated miles the trucks return empty (called "backhauling"), a total of over 5,000 miles again were driven on our highways. This astonishing mileage for domestic beef. Beef from other countries, would have even more miles.



Trucks travel over 5,000 miles from ranch to grocery store.

[28]http://www.latimes.com/news/printedition/asection/la-fg-mexflood3nov03,1,5413461.story?coll=la-news-a_section
[29]http://www.foxnews.com/story/0,2933,209050,00.html
[30]http://www.sciencedaily.com/releases/2007/12/071203173031.htm
[31]http://www.nmclimatechange.us/ewebeditpro/items/O117F9698.pdf
[32]US Department of Commerce, Bureau of Transportation Statistics, 1997 Economic Census-Transportation-1997 Commodity Flow Survey. http://www.census.gov/prod/www/abs/97cf-pdf.html
[33]http://www.organicconsumers.org/btc/london022706.cfm
[34]http://www.iht.com/articles/ap/2007/12/07/america/Global-Warming-Regulations.php

[35]http://www.organicconsumers.org/2006/article_711.cfm
[36]http://www.organicconsumers.org/fair_trade/beef.htm

Our food system's complete dependency upon fossil fuels raises the issues of food security and social justice. The price for a barrel of oil keeps increasing, even having reached well over $100 a barrel. Beyond this, more people are concerned that Peak Oil will create inevitable major food shortages, with the decline of petroleum-based agricultural chemicals and the exorbitant expense of food miles.[37] Looking at the two typical food examples above, it is easy to see that fuel price hikes can mean dramatic increases in food prices. Food prices have risen so much recently for multiple reasons, including biofuels made from crops, that low-income people have been rioting in countries around the world.

Curbing GHG emissions and adapting to future changes must begin to make the shift to local food. Local sustainable food reduces emissions considerably while also providing food security for the future. Food systems take years to develop. We need to lay the foundations now.

What's Being Done So Far

The State of New Mexico has already recognized the importance of decreasing food miles by establishing local food as a priority in meeting the state's climate GHG emissions reduction goals.[38]

The City of Santa Fe already has some preliminary food-related initiatives including:

- Strong support for the Santa Fe Farmers Market, with a permanent building under construction;
- Legal Gray Water reuse, allowing more water for plants and productive gardens without taxing the municipal water system; and
- Preliminary discussions on the creation of community gardens.

Beyond the City's actions, Santa Fe is alive with numerous non-profits, businesses, and others promoting a wide variety of local food initiatives. This is the perfect time for the City to take a leadership role in goal-setting and coordinating Santa Fe's burgeoning local food movement.

[37]The Lady Eve Balfour Memorial Lecture, Nov. 2007, "What Will We East When the Oil Runs Out? Richard Heinberg http://www.soilassociation.org/web/SA/saweb.nsf/2503d470a9e6ebe280256a8e00554d9e/00f6d238ebdba743802571e10037fa9f/$FILE/LEL07_transcript.pdf and http://www.youtube.com/watch?v=_S0RvVrdvF0&feature=user and http://www.soilassociation.org/peakoil and http://www.richardheinberg.com/museletter/159

[38]The New Mexico Climate Change Advisory Group Final Report, December, 2006. http://www.nmclimatechange.us/ewebeditpro/items/O117F10150.pdf (A-10) This state report also recommends organic agriculture (A 9) and the reduction of farm and range land being converted to development uses (A-8).

Proposed Actions

The City of Santa Fe must lead in the vision of a local food system. This will require involvement of many city departments, many community organizations, and multiple organizations outside the city limits. Santa Fe's local food systems require a double focus—developing a City Harvest program that includes infrastructure for local, sustainable food production, processing, storage, and distribution, and developing the Foodshed project that connects the city with surrounding sustainable producers and distributors throughout the bioregion.

10-1. Set a target for local food.
A target such as "30% of the food consumed in Santa Fe by residents will be from a 300 mile foodshed by 2018" could be set. Percentages can increase over time. The current estimate of the amount of local food consumed in the state is 3%.

10-2. Design and implement a City Harvest (food within the city) program to create multiple food growing, processing, storing, and selling opportunities.

a. Create collaborations among groups that work within the city.

b. Review the variety of urban harvest programs that are happening in the U.S. and elsewhere to expand awareness of multiple techniques,[39,40] and to develop multiple pilot research projects to determine the most productive and sustainable methods for Santa Fe.

c. Identify and reduce barriers- legal, economic, educational, etc. to urban agriculture including the retailing of food.

d. Work with City departments on solutions, including increasing the availability of: Land and

[39]http://www.spinfarming.com/ and http://www.marketgardening.com/wallysmarketgarden/

[40]http://www.growingpower.org/urban_agriculture.htm

other resources for food purposes; Water resources, including water reuse- (see Section 8, Water Conservation); and Waste conversion to provide safe inputs (see section 9, Solid Waste reduction).

e. Develop a plan with targets to promote "Yard to Table".

f. Map and Inventory Productive Land and other locations for food.

g. Create a matching program between those who have productive space and those who would like to garden/grow food in such space, including temporary occupancy programs (TOPs) and SPIN (Small Plot INtensive growing) that allow people to earn tens of thousands of dollars using other people's land including backyards.[41]

h. Incorporate local food into Economic Development and Planning.

i. Include food growing opportunities into all affordable housing as a critical component of economic and food security.

j. Develop programs for urban gardening for the homeless and low-income people, as well as therapy for those with mental and physical disabilities and for urban "at-risk" youth, ex-cons, etc.

k. Dedicate municipal water resources to food production.

l. Develop neighborhood centers for home economics, sustainability, and food-related processes, including shared community facilities such as greenhouses, facilities for food storage, and community kitchens.

m. Provide educational resources for techniques such as water re-use from roof-tops, gray water for institutional re-use, roof-top gardens, and organic food production.

n. Develop guidelines for appropriate growing in Santa Fe based on traditional and appropriate dryland gardening techniques (Waffle gardens, perennial polyculture and mulching systems using locally available materials and living mulches, careful varietal selection tailored to urban food production, etc.).

o. Explore the feasibility of adding acres of ecological intensive greenhouses such as the urban model "Growing Power" after a pilot project has been adapted to local conditions.

10-3. Develop a Foodshed (within the 300 miles range) Program in Collaboration with Regional partners.

- Hire the City Harvester to coordinate both programs, within the city and relationships outside the city.
- Build on existing programs by creating collaborations and partnerships with regional initiatives for both private and governmental programs.
- Preserve Productive Land.
- Explore foodshed-wide policies such as lobbying to keep water rights tied to agricultural lands.
- Reduce transportation by cooperative programs for back-hauling (using empty trucks returning from deliveries), sharing shipments, etc.

References:

Growing Better Cities: Urban Agriculture for Sustainable Development (www.idrc.ca/en)

World Health Organization http://www.euro.who.int/nutrition/security/sectop

American Planning Association's official Policy Guide on incorporating food in planning http://www.planning.org/policyguides/food.htm

CPULs – Continuous Productive Urban Landscapes. Designing Urban Agriculture for Sustainable Cities. Andre Viljoen (ed) 2005. Architectural Press. http://www.energybulletin.net/17603.html

http://www.sustainabilitynz.org/docs/AConvenientUntruthJune07.pdf

http://www.cookingwithkids.net/

http://www.nmclimatechange.us/ewebeditpro/items/o117F10150.pdf

[41] http://www.spinfarming.com/ and http://www.marketgardening.com/wallysmarketgarden/

11. EDUCATION AND OUTREACH

Introduction

The United States leads the world in releasing the highest levels of greenhouse gases (GHG) emissions per person. Roughly, 25% of the world's GHG emissions are spewed into the environment by our nation, yet we have merely 5% of the world's population. For our city to meets its commitment to GHG emissions reductions, the hearts and minds of our community must change. No government can impose the varied changes that are needed if it fails to garner the backing of its citizens. Community education at all levels is essential to increase the understanding of why change is needed, as well as to create the multiple transitions required to reach meaningful GHG reduction goals. The vision of sustainability must become integral to our community as a whole.

Background

The City of Santa Fe has diverse resources for sustainability education, which are both formal and informal, as well as private and public. Our city also has a strong underpinning of proud multi-cultural heritage with traditional lifestyles that respected and relied on local resources. Sustainable lifestyles are still within our cultural memory, and evidence of a more sustainable past is everywhere. All cultural groups have participants in the movement to regenerate learning about green building, local food, social justice, land stewardship, and other traditional systems.

Sustainability education must be placed within the context of climate change. There needs to be a basic understanding of the issue of carbon and other GHGs, their rapid buildup, why we need to move towards GHG reductions, and what is currently being done, including giving visibility to city goals. Goals are more likely reached when the community is fully backing them.

Each section of this Plan represents a component needed to meet the goals of a carbon neutral community. Education and training on each plan component will be facilitated by members of the Sustainable Santa Fe Commission, with expertise and participation from local and regional resources.

What's Been Done So Far

With sustainability being such an inclusive topic, and with most age groups needing to be included, no one existing educational program covers everything. The good news is that the basic building blocks are increasing, often with great enthusiasm. Some schools, for example, have school gardens as a learning tool for food security and sustainability. Adult classes are being conducted for trade education where students learn practical solutions such as how to install solar panels or how to use adobes for local green building. Examples are everywhere, and now the task is to coordinate and network components into a common vision, and fill in any missing gaps.

Educational Resources for K-12

Changes to our existing school systems must be done thoughtfully, since the demands on today's teachers can be overwhelming. Teachers in both private and public sectors need support, not additional content requirements. Sustainability runs through a broad scope of disciplines, and this transition must provide the resources to incorporate sustainability themes while meeting the objectives required by both state and national educational leadership.

Examples of how this might be done are evolving. Within the Santa Fe Public Schools System (SFPS), Charter School 37 is a public charter school founded on the pillar of sustainability. Monte del Sol is a public charter school that now has all of its pillars under the umbrella of sustainability. They have an organic garden, water harvesting, solar panels, etc. Also, teacher training was piloted during the summer of 2008 by Earth Care International, with support of the SFPS and other non-profits.

Colleges and Post-Secondary Educational Resources

Our college campuses have a variety of classes, extra-curricular activities, media events, and other programs to teach components of sustainability. For example, the College of Santa Fe has had impressive media events on the issue of local food and other relevant topics.

In addition to degree accreditation, continuing education opportunities at Santa Fe Community College are a valuable resource. The Center for Community Sustainability at Santa Fe Community College offers trades skills education that serves both workforce as well as individual needs for sustainable housing, water conservation, and design. In spite of the existing programs, there is considerable room for additional programs and activities.

Community Education Campaign

Most adults are not attending classes, and the media are limited in their ability to increase awareness. This necessitates a strong adult community-based program for climate change education beyond any formal, school-based education program. Tapping into a wide variety of existing community groups would facilitate this program.

Practical information and education needs to be available. Numerous kinds of partnerships with the City of Santa Fe can support initiatives that provide practical knowledge such as how to reduce energy usage at home and in the workplace, how to conserve water, and how to reduce waste.

Additional Informal Educational Resources and Non-Degree Programs

Additional opportunities for workshops and continuing education exist.

Regional Chapters of national organizations, such as Roots and Shoots and Bioneers, work with people of all ages on issues related to sustainability.

Other initiatives, such as Santa Fe's Youth Media Project, is a partnership between the Santa Fe Public School System, Santa Fe Community College, and KSFR, a local radio station. This partnership offers dual credit for high school students to allow them to receive college credit. Sustainability could be incorporated into this kind of program.

Proposed Actions

11-1. Identify training and education needs within each section of this Plan, eliminating overlap while recognizing synergistic opportunities.

11-2. Identify and develop a curriculum integration task group made up of local public and private K-12 school teachers as well as climate and sustainability education groups.

a. Identify local public and private K-12 schoolteachers.
b. Identify qualified technical resources for teacher continuing education in concepts and subject areas related to climate change and sustainability e.g. alternative energy, ecology, water resources, diversity, etc.
c. Provide task group members with training on climate change and sustainability topics.
d. Facilitate the development of an integration plan for sustainability in the school system, and respective schools.
e. Establish incentives for integration of sustainability concepts into local schools.

11-3. Work with the State Department of Education and SFPS to have them accept sustainability as one of their primary learning goals and toward the integration of Sustainability as part of the K – 12 Standards and Benchmarks.

11-4. Identify informal educational resources for climate and sustainability education.

a. Conduct a community-wide asset mapping of organizations and resources for climate and sustainability education at all levels e.g. informal and formal, K-12 and post secondary etc. and identify goals, objectives, funding sources and timeline for existence of such programs or assets within year one of this Plan.
b. Develop a resource guide or work with existing projects to provide a resource list to consumers of such information.

11-5. Develop both formal and informal (non-degree seeking) education programs.

a. Develop materials for community based action that addresses climate change by working with a variety of resource organizations and others.
b. Develop a cadre of informed community members from many community sectors that can effectively utilize the City of Santa Fe Community Climate Education session(s) to implement actions and programs within their respective groups.

11-6. Support local and regional educational initiatives that strengthen more local markets for sustainable products and services.

11-7. Work with existing initiatives such as Bioneers and others to establish an annual sustainability education conference for teachers, parents, and youth that focuses on the integration of sustainability and related topics into the schools system, while providing resources to its participants.

11-8. Direct City support and funding towards educational materials development and training, and when appropriate, towards organizations that offer needed solutions.

12. IMPLEMENTATION AND EVALUATION

Purpose and Scope of Implementation Plan

The purpose of the Implementation section of the Sustainable Santa Fe Plan is to establish proposed objectives, which will only have authority when action is taken in the form of law, resolution, or recommended practice, and are ultimately adopted.

Successful implementation of the Sustainable Santa Fe Plan requires community involvement and potentially additional research in order to successfully reach each target objective. All sectors of the community including individuals, agencies, businesses, institutions, private and public schools, the Community College, and City government need to become engaged in the process of carrying out the effort to reduce Santa Fe's GHG emissions. For us to reach our target reduction goals, all sectors of the community will need to make a commitment to the established goals and adopt actions to attain them.

Using the City's overarching climate change reduction goal, this plan delineates multiple topics, each with interrelated action plans to achieve the climate goal. The City will identify funding and partnerships in the interest of achieving its goal. These critical topics will be woven together to eventually combine to yield major GHG emissions reductions.

In an ongoing effort to continuously improve and integrate emerging best practices, this plan and its objectives will be evaluated. Using all practical and available resources, the City will conduct annual, five year and ten year assessments to determine the effectiveness of this plan and its objectives and will modify the plan accordingly. Subsequent assessment data and modifications will be reflected in the plan through managed documentation as revisions to this plan.

Serving as a Model

The opportunity for City Government is to be a model to both its residents, and other cities, especially within the region. Every department must educate staff members, review current practices and functions, and begin the transition towards sustainability and emissions reduction. This, however, is only one part of the City's multiple roles.

Implementing the Strategic Community Outreach

Climate targets are different than most other kinds of City programs. Today's society is based on utilizing carbon in its various forms to meet our daily needs and desires. To effectively transition to a low-carbon city, a comprehensive program that continues over time is required. The City is the keystone to realizing such a broad array of actions and goals. Without firm backing from City Government, we will not effectively reduce our emissions in any meaningful timeframe. Santa Fe is alive with potential, however, for the majority of key goals defined in this plan's chapters already have individuals and organizations working on these relevant components. These ongoing projects and initiatives must have built in strategies for continuous improvement as there will always be opportunities. Transition to a low-carbon economy is an ongoing process. Major and pervasive changes necessitate involvement and coordination of the key players, and for the issue of GHG emissions, the

necessary changes are relevant to all citizens, not merely a limited sector within our city, making this topic of sustainability and GHG emissions reductions a deeper and more profound challenge.

As part of a comprehensive effort to implement the Sustainable Santa Fe Plan objectives, Santa Fe's Governing Body, the Sustainable Santa Fe Commission, the Youth Advisory Board, the City's Green Team, all City staff, and citizen commissions and boards - must reach out to the key varied sectors throughout the

community to build the climate goal as a common vision. The City can accomplish this task as the leader in establishing a recognized and accepted city-wide climate vision. Such a city-lead vision lays the foundation of the entire program as stated in the U. S. Conference of Mayors Agreement on Climate Change adopted by Santa Fe through Resolution 2006-54.

The city-wide climate vision necessitates a strong outreach campaign, with selected people going to various community groups, presenting the vision and the plan, reviewing the climate change imperative as needed, and requesting both acceptance of the relevant goals and willingness to work towards the plan's implementation. Development of a Strategic Outreach Plan will utilize the appropriate people for the respective organizations. The Green Team, the Sustainable Santa Fe Commission, and the Youth Advisory Board, working with strategic partners, will develop the outreach strategy, the talking points, visuals including a simple booklet outlining the program, and participatory group materials. Once the outreach participants are prepared and scheduling has begun, the Green Team and the Sustainable Santa Fe Commission and the Youth Advisory Board will meet regularly with outreach participants to review progress, to provide support, to ensure a smooth operational flow, and to assist in building networks among relevant groups. Also, such a review process allows systematic feedback on how well the outreach is working which then facilitates alterations in the plan as needed and alerts the City to what support could facilitate the varied processes.

Building all the topic areas concurrently is challenging, but a coordinated outreach program can perform well without neglecting or postponing important objectives. As all target areas need to be addressed now, there is opportunity to start communication for all objectives concurrently. This across-the-board strategy can take advantage of synergistic impacts. Through public service announcements on local radio stations and newspaper articles, the City will assure that all areas are addressed. Comprehensive activities in the schools can be another mechanism for broad reaching GHG education. The recognition of the City's vision, and the empowerment and coordination of both existing and new groups can create the building blocks to lead to powerful actions within a more aggressive timeline. The existing and new champions, coordinating with the City and each other, will be able to effectively identify barriers and to actively promote the objectives within the larger context.

Implementation work groups will be formed for each topic of this plan with representation from the Sustainable Santa Fe Commission, the Youth Advisory Board and other community members and stake holders. The work groups will meet regularly and report progress to the Sustainable Santa Fe Commission. In this way, the vast amount of information, ideas, and interested parties can be organized effectively, with responsibility and accountability to the City and its goals.

The following chart is the summary of all major actions, by topic. Each objective for each section is listed with a target time period for initiation. Within the proposed start timeframe, specific target dates will be defined by key leadership to include City Staff and Elected Officials, the Sustainable Santa Fe Commission, and community partners. These specific target dates will be developed and communicated as ongoing addendums to this Sustainable Santa Fe Plan in the interest of continuous improvement.

SUMMARY SANTA FE CLIMATE ACTION PLAN

ACTION ITEMS	IMPLEMENTATION STATUS	TARGET COMPLETION DATE
GREENHOUSE GAS EMISSIONS INVENTORY 1-1. Acquire the data needed to complete the Baseline Emissions Inventory. 1-2. Use the software and other measures to assess the efficacy of measures recommended in this Plan. 1.3 Set priorities for implementation of plan actions based on their calculated efficacy, cost, requirements and additional benefits.		
CITY OPERATIONS 2-1. Develop a workplace training program to help city staff reduce the impacts of their daily operations. 2-2. Follow the recommendations of the energy audits once completed. 2-3. Review the City's purchasing manual and propose revisions that would reduce the impact of city purchases including: reduced packaging, reduced toxicity, increased local and organic food, increased recycled material content, leveraged purchasing power of sustainable products through partnerships with the County and/or the State, increased local and low-mileage purchases, increased waste reduction (reduced disposables), increased recycling, increased water harvesting, and increased energy efficiency. 2-4. Move towards plug-in electric hybrid technology for all appropriate fleet vehicles paired with solar photovoltaic recharge stations. 2-5. Maximize hydro-electric energy generation capability of the City's water system.		
GREEN BUILDING CODE 3-1. Implement performance based Santa Fe Green Building Codes that recognize the need for phased-in mandatory minimums and offer incentives to builders for performance significantly above the mandatory thresholds. 3-2. Codify long-range commitments and date benchmarks included in the "2030 Challenge". 3-3. Develop green building codes and incentive programs for: • Existing building remodels and retrofits; • Commercial buildings; and • Structures in historical districts, both new and existing.		
DEVELOPMENT AND ZONING CODE 4-1. Amend the Development Code to make access to solar exposure a property right thereby encouraging investments in solar equipment and design. 4-2. Amend the Development Code to encourage use of gray water for landscape watering and other uses such as toilet flushing.		

ACTION ITEMS	IMPLEMENTATION STATUS	TARGET COMPLETION DATE
4-3. Amend the Development Code to encourage use of cisterns and other water harvesting techniques that use rainwater to reduce use of tap water for landscape watering. 4-4. Amend the Development Code to encourage natural vegetation shading of buildings and hardscape surfaces as vegetation both absorbs CO2 and provides shading from unwanted solar gain in the summer, reducing the need for mechanical cooling. 4-5. Amend the Development Code to require subdivisions be laid out to enable maximum feasible use of solar design, solar equipment, and the ability to use stormwater to reduce water demand. 4-6. Amend the Development Code to encourage locally grown food to both reduce GHG emissions and prepare for future rises in fuel costs to transport food into the area. 4-7. Encourage Passive Solar Building Design. 4-8. Amend the zoning code to incorporate of some aspects of performance zoning to allow for a greater variety of compatible uses which reduces the number and length of vehicle trips. 4-9. Encourage Development of Affordable Energy Efficient Housing. 4-10. Amend the Development Code to require large development projects and subdivisions to provide safe bicycle and pedestrian infrastructure.		
CLEAN ALTERNATIVE ENERGY 5-1. Reduce Santa Fe's demand for energy through efficiency. 5-2. Reduce energy demand during peak hours. a. Conduct an energy audit which tracks uses of energy by time of day and time of year. Identify those demands that coincide with PNM's peak hours (June to September, 2 p.m. to 8 p.m.) and explore options for reducing those peaks. 5-3. Conduct community outreach, such as informational campaigns and "give-aways" of things like compact fluorescent light bulbs and other energy or water saving devices (water pumping requires a lot of energy so water savings also reduces energy demand). This could be done through a new efficiency utility. 5-4. Encourage more renewable energy and distributed generation, including concentrated solar, photovoltaic systems (PV), wind power, microturbines and cogeneration, and possibly larger distributed generation and energy storage projects that could be used to "firm" renewables and lower the need for new power plants and power lines. a. Provide assistance to individuals and local businesses to understand any existing incentives to installing distributed generation within the City and guide them through the process including any forms or contacts with state offices that are needed.		

ACTION ITEMS	IMPLEMENTATION STATUS	TARGET COMPLETION DATE
b. Add a solar rights ordinance to the City's Development Code (Chapter 14) to ensure that investments in solar technology, both passive and active, are protected and are easily defended. (Current state law requires people to register their solar right with the county and they then must sue a neighbor that violates that right through the civil court system). 5-5. Develop programs to help people install renewable energy systems. a. Implement a loan program that would provide residents with low interest loans to facilitate the purchase of renewable energy sources and energy equipment and energy efficiency upgrades for buildings. 5-6. Examine how the City gets its energy and consider alternatives that would reduce dependence on fossil or nuclear fuels to a much greater amount than is currently required by the NM PRC. a. Encourage private or public/private partnerships to develop small-scale renewable energy and distributed generation projects within the City. b. The City could consider entering into power purchase agreements (PPA) in order to purchase renewable energy. c. Consider the development of a regional municipal power utility that could offer efficiency programs and distributed generation, and possibly larger renewable systems, including utilizing more efficient and more ecological High-Voltage DC (HVDC) transmission lines, while still using PNM for base and backup energy supplies, with the goal of avoiding need for new generation and transmission. d. Lobby the state government to pass laws that would allow communities to aggregate their loads and choose their own power suppliers who are providing clean, renewable energy as is being done in California with the Community Choice Aggregation program. 5-7. Ensure that as energy rates rise, the low-income families in the community are not left without the means to pay for basic energy needs. a. Require any utility serving Santa Fe, prior to disconnecting a City resident, to notify the city's affordable housing office and provide the opportunity to determine if the household meets the criteria that would prevent their utilities from being disconnected. b. If the resident earned too much to qualify but still not enough to pay the bills, the City could identify non-profits or develop a funding source to assist such residents. 5-8. Enhance the State of New Mexico's program for assisting low-income families with weatherization with complementary programs, including energy-efficiency.		

ACTION ITEMS	IMPLEMENTATION STATUS	TARGET COMPLETION DATE
a. Establish a minimum weatherization standard that existing structures would be required to meet either at sale and/or by a specific time in the future. Low-income owners and owners that commit to renting to low-income tenants could be provided assistance either from the State or some other mechanism. b. Lobby the State Legislature for increased funding of low-income weatherization programs. c. Investigate alternative low-cost methods of weatherization and efficiency, and promote the preferable methods.		
TRANSPORTATION 6-1. Establish mechanisms and provide support for initiatives that increase the variety and use of mass transit. 6-2. Prioritize zero emission transportation including walking, bicycling, and Electric Vehicles (EVs) both low speed and high speed. EVs include scooters, motorcycles, three-wheeled vehicles, golf carts, ATVs, cars and trucks that operate on electricity. a. Establish safe transportation routes for all forms of zero emission vehicles powered by clean, renewable sources. b. Offer free or very inexpensive bicycle and/or EV rental systems. c. Place bike racks throughout the city. d. Expand parking availability and provide opportunities for recharging zero-emission vehicles. e. Continue the design and construction of a comprehensive pedestrian and bicycle trail system throughout the City. f. Improve sidewalk conditions and ensure they meet ADA standards. g. Increase the bicycle carrying capacity of Santa Fe Trails buses. 6-3. Encourage carpooling. 6-4. Encourage alternative fuels when they're shown to produce less GHG than gasoline or diesel and when their production does not negatively impact food production. Where, appropriate, encourage their production locally. 6-5. Support the development of businesses including sales and service businesses that use, sell, and/or promote lower, low and no-emission transportation. 6-6. Seek grants and other financial incentive programs to implement various transportation action items, including bicycle, driver, and pedestrian education. 6-7. Implement "Complete Streets" including retrofitting existing streets where the width of the right-of-way allows. 6-8. Continue and promote the construction, installation and implementation of on-road facilities for use by bicyclists as a safe alternative means of transportation including but not limited to		

ACTION ITEMS	IMPLEMENTATION STATUS	TARGET COMPLETION DATE
signage, sharrows, "road diets", bike lanes and similar facilities where appropriate on the and existing roads and streets, especially where they integrate with public transportation.		
ECOLOGICAL ADAPTATION 7-1. Set an overall city-wide goal of adaptation to climate impacts. 7-2. Create systems that maximize use of rain and storm water for plant support and groundwater recharge. 7-3. Reduce "urban heat island effect". 7-4. Protect soils as the foundation of adaptation to the impacts of climate change. 7-5. Improve support for biodiversity with adaptation techniques.		
WATER CONSERVATION 8-1. Develop a Water Conservation Strategic Plan. 8-2. Expand Rebates and Incentive Programs. 8-3. Adopt New Technologies to better track water use and then help customers to conserve more easily. a. Improve billing system to better track supply-side infrastructure and water use by customers as well as to validate the effectiveness of new conservation measures. b. Monitor water use with Fire Flies and Kopy Caps. c. Broaden the use of, and consider requiring, a variety of water saving appliances. d. Reduce unnecessary public and private landscape watering. 8-4. Proactively Plan and Run Tests to Identify Leaks. 8-5. Expand existing residential leak investigation/survey program to include other water customer sectors. 8-6. Expand Public Outreach and Education (see Section 11, Education and Outreach). a. Require Irrigation Certification from the New Mexico Irrigation Association for some irrigation installations. b. Improve the City website to include water conservation information for residential and commercial customers that is both useful and interactive. c. Create and maintain public demonstration gardens throughout the City. 8-7. Develop a Strong Compliance and Enforcement Program. 8-8. Expand Support for Water Conservation Activities. 8-9. Initiate a Program to Maximize Water Harvesting. 8-10. Initiate a Program to Process and Utilize Water for Multiple Purposes. 8-11. Continue and increase the use of treated effluent.		

ACTION ITEMS	IMPLEMENTATION STATUS	TARGET COMPLETION DATE
8-12 Consider the energy requirements of any potential new water sources and seek opportunities to use clean, renewable energy sources for the energy requirements of both existing and new water sources.		
SOLID WASTE REDUCTION 9-1. Conduct an Efficiency Analysis of the City and regional waste stream and adopt a Zero Waste ordinance that recognizes the viability of gradual replacement of landfills with sustainable enterprises that create local jobs and local economic development. 9-2. Aggressively increase business recycling efforts, including, but not limited to, providing incentives to businesses and other organizations and facilities that reduce the volume of wasted resources from their facility by set percentages that increase over time. 9-3. Establish new City purchasing policies, and other City operations, and propose changes that would reduce waste and embodied energy, reduce GHG emissions, provide preferences for vendors that reduce waste and pollution, and provide preferences for vendors that have "Take Back" programs to reduce waste. 9-4. Work with the construction and demolition industries to develop initiatives for Zero Waste. a. Investigate best uses for separated non-engineered lumber to include shredding by the City tub grinder. b. Reject construction waste that is divertible as landfill material at the transfer station. Require that such loads be sorted and recycled. c. Encourage the use of natural local construction materials that create few wasted resources. 9-5. Divert re-use items at transfer station. 9-6. Switch fuels for solid waste vehicles and transfer station and landfill equipment such as the tub grinder and chippers from diesel and gasoline to bio-diesel or other fuel with less GHG emissions when the production of those fuels does not negatively impact food production. For transfer station and landfill equipment, such a switch should be completed by 2012 with possible interim goals to mixed fuels by 2009. The specific goals for vehicles are presented in Section 6, Transportation. 9-7. Prepare and conduct on-going outreach and education as described in section 11, Education and Outreach, of this Plan to strive to Zero Waste including: a. Development of a brochure for consumer purchasing decisions by 2008; b. Increase composting, and recycling participation with a goal of 85% participation rate of city residents and businesses by 2010 and a reduction in the weight of waste of 75% of the 2003 baseline by 2015; and c. Encourage people to reuse bags or containers.		

ACTION ITEMS	IMPLEMENTATION STATUS	TARGET COMPLETION DATE
9-8. Seek funding to develop a reusable bag, with the option of stores adding their logo, along with a "Sustainable Santa Fe" logo, to encourage bag reuse. This can be combined with an ordinance restricting free bag distribution from stores. 9-9. Explore opportunities to minimize packaging. 9-10. Explore opportunities to sell carbon offsets (credits) gained by recycling and use the proceeds to further recycling efforts. 9.11. Seek grant funds to conduct a landfill gas exfiltration analysis of the City's landfills including an evaluation of any potential reuse or remediation. 9-12. Expand the recycling program to add safe compostable food wastes. 9-13 Increase Household Hazardous Waste collection to once per quarter. 9-14. Provide for curbside collection of electronics waste (E-waste). 9-15. Santa Fe should follow through with the "Pay as you throw" system to increase recycling participation. 9-16. Explore the feasibility of implementing a green waste collection program for both residential and commercial customers. 9-17. Review operations at the sanitary wastewater treatment plant to ensure optimal aerobic treatment.		
FOOD SYSTEMS 10-1. Set a target for local food. 10-2. Design and implement a City Harvest (food within the city) program to create multiple food growing, processing, storing, and selling opportunities. a. Create collaborations among groups that work within the city. b. Review the variety of urban harvest programs that are happening in the U.S. and elsewhere to expand awareness of multiple techniques and to develop multiple pilot research projects to determine the most productive and sustainable methods for Santa Fe. c. Identify and reduce barriers- legal, economic, educational, etc. to urban agriculture including the retailing of food. d. Work with City departments on solutions, including increasing the availability of: Land and other resources for food purposes; Water resources, including water reuse; and Waste conversion to provide safe inputs. e. Develop a plan with targets to promote "Yard to Table". f. Map & Inventory Productive Land and other locations for food. g. Create a matching program between those who have productive space and those who would like to garden/ grow food in such space, including temporary occupancy		

ACTION ITEMS	IMPLEMENTATION STATUS	TARGET COMPLETION DATE
programs (TOPs) and SPIN (Small Plot INtensive growing) that allow people to earn tens of thousands of dollars using other people's land including backyards. h. Incorporate local food into Economic Development and Planning. i. Include food growing opportunities into all affordable housing as a critical component of economic and food security. j. Develop programs for urban gardening for the homeless and low-income people, as well as therapy for those with mental and physical disabilities and for urban "at-risk" youth, ex-cons, etc. k. Dedicate municipal water resources to food production l. Develop neighborhood centers for home economics, sustainability, and food-related processes, including shared community facilities such as greenhouses, facilities for food storage, community kitchens. m. Provide educational resources for techniques such as water re-use from roof-tops, gray water for institutional re-use, roof- top gardens, and organic food production. n. Develop guidelines for appropriate growing in Santa Fe based on traditional and appropriate dryland gardening techniques (Waffle gardens, perennial polyculture and mulching systems using locally available materials and living mulches, careful varietal selection tailored to urban food production, etc.). o. Explore the feasibility of adding acres of ecological intensive greenhouses such as the urban model "Growing Power" after a pilot project has been adapted to local conditions. 10-3. Develop a Foodshed (within the 300 miles range) Program in Collaboration with Regional partners.		
EDUCATION AND OUTREACH 11-1. Identify training and education needs within each section of this Plan, eliminating overlap while recognizing synergistic opportunities. 11-2. Identify and develop a curriculum integration task group made up of local public and private K-12 school teachers as well as climate and sustainability education groups. a. Identify local public and private K-12 schoolteachers. b. Identify qualified technical resources for teacher continuing education in concepts and subject areas related to climate change and sustainability e.g. alternative energy, ecology, water resources, diversity, etc. c. Provide task group members with training on climate change and sustainability topics. d. Facilitate the development of an integration plan for sustainability in the school system, and respective schools.		

ACTION ITEMS	IMPLEMENTATION STATUS	TARGET COMPLETION DATE
e. Establish incentives for integration of sustainability concepts into local schools. 11.3. Work with the State Department of Education and SFPS to have them accept sustainability as one of their primary learning goals and toward the integration of Sustainability as part of the K - 12 Standards and Benchmarks. 11-4. Identify informal educational resources for climate and sustainability education. a. Conduct a community-wide asset mapping of organizations and resources for climate and sustainability education at all levels e.g. informal and formal, K-12 and post secondary etc. and identify goals, objectives, funding sources and timeline for existence of such programs or assets within year one of this Plan. b. Develop a resource guide or work with existing projects to provide a resource list to consumers of such information. 11-5. Develop both formal and informal (non-degree seeking) education programs. a. Develop materials for community based action that addresses climate change by working with a variety of resource organizations and others. b. Develop a cadre of informed community members from many community sectors that can effectively utilize the City of Santa Fe Community Climate Education session(s) to implement actions and programs within their respective groups. 11-6. Support local and regional educational initiatives that strengthen more local markets for sustainable products and services. 11-7. Work with existing initiatives such as Bioneers and others to establish an annual sustainability education conference for teachers, parents, and youth that focuses on the integration of sustainability and related topics into the schools system, while providing resources to its participants. 11-8. Direct City support and funding towards educational materials development and training, and when appropriate, towards organizations that offer needed solutions.		

REFINING SCHEDULED IMPLEMENTATION

Proposed Implementation Measures with broad time frames are to be established within 6 months of the Plan adoption by City Council. Specific date deliverables will be identified for each objective within the Targets of Opportunity by the specific implementation team, not limited to City Staff and the Sustainable Santa Fe Commission. Specific delivery dates for each objective will be communicated to City leadership within the proposed time frame and modified to meet leadership objectives as necessary.

EVALUATION

The Sustainable Santa Fe Plan is an ambitious effort to affect Climate Change and increase sustainability through City led initiatives and partnerships. As all objectives identified in this Plan are measurable and modifiable based on their overall ability to affect the City goal to reduce GHG emissions. Using both qualitative and quantitative evaluation methods, City Staff, with assistance from the Sustainable Santa Fe Commission will conduct an annual evaluation of the progress toward each initiative and its overall impact on the objectives and overall goal. This report may not be limited to written delivery, but may also integrate creative communication capabilities. Feedback to the community will be provided through the City website and maintained in each annual

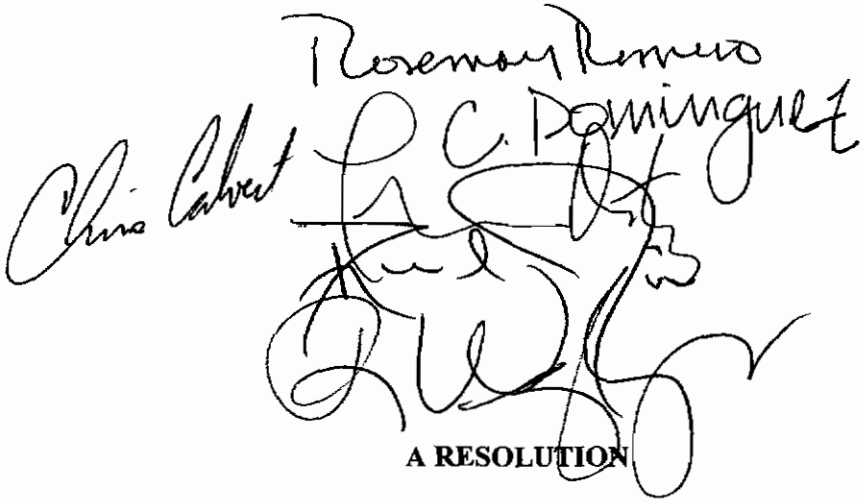
APPENDIX F

City of Santa Fe 33% Recycling Rate Resolution

CITY OF SANTA FE, NEW MEXICO

RESOLUTION NO. 2008-86

INTRODUCED BY:



A RESOLUTION

ADOPTING THE GOAL OF REACHING A 33% RECYCLING RATE BY THE YEAR 2012 AND TAKING SUCH STEPS AS ARE NECESSARY TO REACH THIS GOAL.

WHEREAS, recycling saves natural resources from being extracted, reduces the need for water & energy to process those virgin materials and provides more jobs than the trash-handling industry; and

WHEREAS, recycling is one of the easiest ways citizens can work to ensure a clean environment for future generations; and

WHEREAS, only ten percent of New Mexico's waste stream and only approximately five percent of Santa Fe's waste stream is currently diverted from landfills, both well below the national average of 33%; and

WHEREAS, with curbside recycling available to Santa Fe residents, the infrastructure exists to greatly increase the City's recycling rate; and

WHEREAS, the New Mexico Recycling Coalition (NMRC) first targeted recycling awareness campaign focused on the Albuquerque market in November of 2007 resulting in a 20%

increase in tons recycled in December of 2007; and

WHEREAS, the NMRC is targeting Santa Fe in their 2008 public awareness campaign, "Get Caught Recycling in Santa Fe", during November's New Mexico Recycling Awareness Month, rewarding those who recycle within the City and County of Santa Fe with prizes donated by local businesses as an incentive to recycle; and

WHEREAS, the NMRC is prepared to assist the City in establishing the City's own annual, "Get Caught Recycling in Santa Fe", campaign beginning in 2009 by providing the City with program guidelines and other technical documents and information in order to make the program an easily managed, self-sufficient event; and

WHEREAS, the NMRC has also offered to assist the City in increasing commercial recycling significantly by preparing a business recycling toolkit to be used to reach out to the business community, including the building and hospitality industries, which is essential to divert waste from construction projects and to ensure that Santa Fe becomes a top green destination complementing the new Santa Fe Community Convention Center; and

WHEREAS, in partnership with the City of Santa Fe Solid Waste Division, the NMRC implemented different types of industry-accepted recycling collection methods during the 2008 Spanish Market that served as a pilot project to discover how best to collect non-contaminated recyclables at public events with the following Best Practices identified:

a) ClearStream containers worked the best. The soda bottle shaped containers and 96-gallon beige carts were tested by the NMRC. One hundred ClearStreams are in the process of being purchased by City of Santa Fe Solid Waste Department for Indian Market and all future Plaza events;

b) Always place a recycling bin next to a trash container. No trash container can should stand alone and no recycling bin should stand alone;

c) Volunteers and staff, wearing gloves and volunteer shirts, should monitor

recycling cans once every couple of hours to pull out bottles and cans from trash bins and to pull out any unwanted items from recycling containers;

d) Provide information at the beginning of the event to vendors about where to place cardboard. In the future, vendors can be instructed to break down boxes and lean next to the trash/recycling bins for staff pick-up;

e) It is important to keep trash containers from getting too full. Trash containers should be emptied when ¾ full;

f) A smaller roll-off recycling collection container for cardboard could work well and save parking space;

g) Coordinating ahead of time with Parks and Recreation and event organizers is critical. Parks and Recreation is responsible for trash collection. If they can help with the sorting and handling of recycling, that would be very helpful and reduce the need for solid waste department staff time; and

WHEREAS, the City can serve as a recycling leader, demonstrating its support for significantly increasing the City's recycling rate.

NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BODY OF THE CITY OF SANTA FE that:

Section 1. The City adopts the goal of reaching a 33% recycling rate by the year 2012.

Section 2. The City Manager is directed to establish effective recycling programs at all City facilities.

Section 3. The City Manager is directed to ensure that mechanisms are in place to increase education and raise awareness regarding recycling and increase participation in curbside recycling programs including the following:

(a) Creating an annual "Get Caught Recycling in Santa Fe" campaign

beginning in November 2009 with the assistance of the New Mexico Recycling Coalition as part of November's New Mexico Recycling Awareness Month;

(b) Focusing on commercial recycling with the assistance of the New Mexico Recycling Coalition by working with the business community and by providing excellent customer service with increased pick-ups as may be needed;

(c) Creating a public awareness campaign through such efforts as advertisements, press events, radio and television programming, bus wraps, and feature stories;

(d) Providing recycling services at large public events;

(e) Providing recycling services to multi-family units;

(f) Promoting a green waste and food scrap recycling program;

(g) Ensuring a successful launch of the City's schools recycling services, scheduled to occur by the end of 2008, by training janitorial, administrative and academic staff at Santa Fe's public schools; and

(h) Implementing the goals for reducing solid waste set forth in the Sustainable Santa Fe Plan upon adoption of the Plan by the Governing Body.

PASSED, APPROVED, and ADOPTED this 6th day of October, 2008.

David Coss

DAVID COSS, MAYOR

ATTEST:

Yolanda Y. Vigil

YOLANDA Y. VIGIL, CITY CLERK

APPROVED AS TO FORM:

FRANK D. KATZ, CITY ATTORNEY

Jp/ca/jpmb/2008 res/recycling 33%

APPENDIX G

Santa Fe County Sustainable Growth Management Plan
(Executive Summary)

Sustainable Growth Management Plan Executive Summary

The Sustainable Growth Management Plan (SGMP) is the Comprehensive Plan for the County and an update of the 1999 Growth Management Plan. The SGMP is a vision of the future for the County shaped by local community values, to guide the future direction over environmental, social and economic sustainability planning through the year 2030. The SGMP also provides a framework for future implementation such as the Sustainable Land Development Code, a Strategic Plan and Action Plan and a Capital Improvements Plan (CIP).

Growth Management for Santa Fe County

Growth management is a set of planning tools or techniques used to ensure that as the population grows there are services available to meet its demands. Techniques used to execute growth management policies may include, but are not limited to: growth management area designations; level of service considerations; protection of culturally and ecologically sensitive land areas; adequate public facilities regulations that may include financing tools such as impact fees and special assessment districts; density transfer options and transfer of development rights (TDR) programs; and zoning regulations. Implementation of effective growth management for the County will mean establishing more efficient development patterns and supporting the County's sustainability objectives.

Purposes for Creating the 2010 SGMP

The SGMP will establish the framework for planning, land use, public facilities and services, and fiscal responsibility:

1. Create a growth management strategy that directs the location and character of future growth to appropriate and designated areas that include mixed use, residential, commercial and industrial uses.
2. Create a growth management strategy based on fiscal responsibility.
3. Focus on existing community needs, values and feedback in relation to future planning and local economic development.
4. Respect the natural environment, the rural landscape and open spaces between established and new communities.
5. Conserve water and other infrastructure resources for present and future generations.
6. Redefine the zoning standards and the development review process.
7. Provide the appropriate county resources to implement a sustainable growth management strategy.
8. Ensure effective, transparent and ethical governance.

The SGMP has established Principles which are focused on environmental, social and economic sustainability. The County recognizes an ecological imperative to protect the environment, a social imperative to sustain community and regional planning and an economic imperative to balance opportunities and production with responsible resource use.

Plan Elements and Directives

The SGMP is based on extensive data collection, analysis of past planning, management and resource policies, written findings and preparation of multiple alternative scenarios. These components have been combined into Sustainable Plan Elements through the extensive cooperative work, assessment and analysis among the County staff, the Board of County Commissioners, the County Development Review Committee, the municipalities, Tribal leaders, community members, citizen groups, environmental groups, professional associations, consultants, developers, realtors, attorneys and non-profit organizations.

Chapter 1: A Sustainable Vision for Santa Fe County which includes the County Vision Statement, the County definition for Sustainability, Growth Management for the County, reiterates the purposes for Creating the Plan and states the Principles for Sustainability. Each SGMP Element contains:

1. ***Key Issues*** which identify significant issues facing the County;
2. ***Keys to Sustainability*** which are fundamental concepts for implementation of the principles for sustainable development;
3. ***Critical Findings*** which a descriptive analysis and background information illustrated by graphs, figures, tables and maps which set the framework for the plan directives; and
4. ***Directives*** include the goals, policies and strategies.

Chapter 2: Land Use Element

- Land use and development should be consistent and comply with the sustainability principles established in SGMP providing for rational development patterns, land use compatibility and adequate public facilities and services at adopted levels of service.
- The County will establish effective growth management techniques use the Sustainable Development Areas Map, Future Land Use Map and Official Map to guide land use, development review and infrastructure provision.
- Future development patterns should be sustainable through reduced land consumption, transit options, mixed use objectives, and through the development of appropriate land use options.
- The County will honor and integrate existing community plans and ordinances and continue the community planning process

Chapter 3: Economic Development Element

- Pursue a diverse and sustainable local economy that integrates environmental and community needs and supports the local workforce and provides new opportunities for local employers and residents.
- Support partnerships with other non-governmental and non-profit organizations to establish strategies in support of economic development efforts.
- Actively pursue target industries that provide the most relevant social and economic benefits including workforce development and education.

Chapter 4: Agriculture and Ranching Element

- Preserve, promote and revitalize agriculture and ranching as a critical component of the local economy, culture and character.
- Support local food systems and food security.
- Support agricultural production through a variety of techniques.
- Preserve and support community-based agriculture and acequia landscape systems as an important part of the County's heritage and agricultural sustainability.

Chapter 5: Resource Conservation Element

- Protect, preserve and conserve the County's vast natural resources, archaeological, historic, cultural, and scenic view shed resources.
- Preserve, support and enhance the character and function of communities, neighborhoods and rural areas.
- Protect vegetation and wildlife habitats, including rare, native species, threatened and endangered species.

Chapter 6: Open Space, Trails, Parks and Recreation Areas Element

- Support the acquisition, preservation and maintenance of open space to create a network of public and private open space, parks and trails throughout the County.
- Establish an interconnected system of trails and parks, with continuous regional trail and park connections for pedestrians, equestrians, and cyclists.
- Protect environmentally sensitive areas and areas of archaeological and historic significance.

Chapter 7: Renewable Energy Element

- Support energy efficiency and renewable energy and reduce greenhouse gas emissions and dependence on non-renewable energy use.
- Promote and encourage the development and use of sustainable, renewable energy production and distribution infrastructure and reduce dependence on non-renewable energy use.
- Create a viable green energy economy and community through economic development and sustainablity.

Chapter 8: Sustainable Green Design and Development Element

- Development should be consistent and comply with the principles of sustainability of the SGMP.
- Promote sustainable development through "green" building and development techniques.
- Limit solid waste production and support recycling to limit landfill use and move toward zero waste.

Chapter 9: Public Safety Element

- Establish and maintain an all-hazard emergency response plan for Santa Fe County.
- Preserve and protect public health, safety, welfare and property through adequate provision of law enforcement, fire and emergency response, and emergency communication services.
- Obtain and utilize the latest in emergency communications equipment and technology

Chapter 10: Transportation Element

- Coordinate with Local, State and Federal governments and transportation organizations to develop a cohesive, safe, and efficient transportation network and transit opportunities.
- Expand safe, convenient and efficient public transportation services to encourage reduction in automobile trips and provide mobility for all people, including underserved populations.
- Ensure safe, context-sensitive design standards for transportation improvements that reflect local preferences and the needs of all types of transportation users.
- Limit air, noise and water pollution due to transportation.
- Require consistent and efficient road standards.

Chapter 11: Water, Wastewater and Stormwater Management Element

- Land use and development should be consistent with water management, environmental and hydrological capabilities and constraints.
- New development will incorporate water conservation and reclamation measures where appropriate, in order to maintain and improve reduced County-wide per capita water consumption.
- Protect groundwater as the County's secondary source of water to serve as a back-up supply
- Provide for a sustainable long-term water supply capable of meeting current and future needs.

Chapter 12: Adequate Public Facilities and Finance Element

- Protect and enhance the County's fiscal resources and ensure high quality public facilities and services.
- Ensure that adequate public facilities and services are provided and maintained.
- Equitably finance facilities and services.

Chapter 13: Housing Element

- Establish a public-private program to provide adequate supplies of affordable, work force and senior housing for low, very low and moderate income Santa Fe County residents, households, families and employees.
- Support the development of a variety of housing types in appropriate locations to meet the diverse needs of Santa Fe County residents.
- Support rehabilitation and repairs for existing low and moderate income homeowners to reduce energy costs and improve energy efficiency.

Chapter 14: Governance Element

- Promote intergovernmental cooperation and coordination to address regional issues and support County goals.
- Evolve the role of community planning and public participation.
- Ensure clear, consistent, efficient and equitable development regulation and review.
- The public should be included in on-going growth management planning and development review activities in the County.

Chapter 15: Implementation Element

The binding principles, goals, policies and strategies of each Element form the core of the SLDP's Policy Framework. The Implementation Element describes the major tools for implementing the SLDP and achieving the SLDP's policy framework and includes:

1. Sustainable Land Development Code and Official Map
2. Establishing Financing Mechanisms for Adequate Public Facilities
3. Establishment of a Capital Improvements Program
4. Strategic Plan and Work Program.

APPENDIX H

Report on Findings and Recommendations
of the
Santa Fe County Solid Waste Task Force

MEMORANDUM

DATE: September 28, 2009

TO: Board of County Commissioners

Cc: Roman Abeyta, County Manager

FROM: Helen Perraglio, Accounting Oversight Manager
Olivar Barela, Solid Waste Manager

SUBJECT: Report on Findings and Recommendations of the Solid Waste Task Force

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The Santa Fe County Solid Waste Task Force was established by the Board of County Commissioners by Resolution 2009-129 on July 28, 2009. The Task Force was comprised of the following members: constituents Walter Wait, William Mee, David Dogruel and Andrew Leyba together with the following County staff, Roman Abeyta, James Lujan, Helen Perraglio, Brian Baca, and Olivar Barela.

The purpose of the Task Force was to address several issues surrounding the County's Solid Waste Program to include the following:

- Permit structures and alternatives.
- Cost versus services, self-sufficiency and economic strategy for countering changes in revenue streams.
- Illegal dumping and recycling.

The Task Force was very engaged in the above mentioned topics and found that the issues were not so clear and were indeed more involved than what appeared on the surface. Much discussion was held concerning the fee structure and how it relates to illegal dumping and what role recycling plays in the whole picture. The following consensus was reached with regard to the issues stated above:

- Illegal dumping is a social problem that has very little attachment to the fees because the illegal dumping is practiced by a very small sector of the community

where resources would best be used on education, community outreach and incentives.
    - The majority of illegal dumping appears to be construction debris which means more options need to be looked at to prevent this from happening.
    - Santa Fe County will continue to work with stakeholders like the BLM and environmental groups on grants and funding to remediate illegal dump sites.
- Free recycling is a positive function that would encourage persons to utilize our facilities and lower the solid waste costs over time and would have a very positive impact on environmental issues.
- The fee structure as it stands now is not sufficient to fund the operation of the Solid Waste Program. Alternative fee programs such as assessment and monthly billing are unfavorable at this time because it would be too costly and difficult to administer, and may impose inequities on those County residents that prefer to pay for curb-side pickup of waste. Two counties that were researched that have either monthly billing or are doing annual assessments have experienced difficulties with either initiating the program with the data base interface between tax accounts and billing accounts, or having collection and delinquency issues and audit findings. It was agreed by the task force, that this is not a favorable alternative.

The Solid Waste Task Force recommends the following:

- Short Term Solution: Fee structure to remain as annual permits as follows:

RESIDENTIAL

$55	24 Trip Permit (includes free recycling)	
$35	10 Trip Permit (include free recycling)	
$15	One Trip Permit (includes free recycling)	
$5	5 Bag Tags	
FREE	RECYCLING	

SMALL COMMERCIAL

$100	10 Trip Permit	$.025/lb or $50/ton-billable accounts
$ 60	5 Trip Permit	

Opening up services to incorporated areas with only two options:

$40	4 Trip Permit (includes free recycling)
$15	One Trip Permit (includes free recycling)

The primary goal of this solution is to help fund the Solid Waste Programs' operations and help it become closer to attaining self-sufficiency. The fees were determined based on estimates of consumer usage instead of Solid Waste operating costs. The goal is not to over-burden taxpayers with capital costs associated with the Solid Waste Program. There are other opportunities that exist to bridge the gap in funding and are discussed in longer term solutions below:

- Long Term Solution: Installation of Scales at Transfer Stations to utilize a "pay as you throw" method of charging for Solid Waste.

- Capital Funding will have to be allocated to purchase scales and software. Look into making part of a future County General Obligation Bond issue.
- Possibilities exist to setup prepaid accounts or to pay at the transfer stations, or to be billed.
- This option will help encourage recycling in that it will cost users less at the transfer station if they separate recyclables – thus less weight.
- The goal of this solution is to keep costs low to users, and to prevent large rate hikes to support the operations of the Solid Waste Program.
- The consensus is that this option would be the most equitable to all users, and in turn be most economical to the operation of the Solid Waste Division.

- Recommend that the 1/8th Environmental Gross Receipts Tax (EGRT) be ear-marked annually strictly for the Solid Waste Program. The EGRT can be utilized for solid waste, water and wastewater per statute. The EGRT has been budgeted in the Solid Waste Program for the past several years and it is feasible that it be designated strictly to the Solid Waste Program in future years. If the Solid Waste Program becomes more self-sufficient in future years, the EGRT can be re-visited and re-allotted to other functions at that time. The FY2010 budgeted amount for the EGRT is currently $828,000 and in good years has amounted to $915,000.

- Another future solution to help fund Solid Waste, is to charge an impact fee for Solid Waste. Currently the State of New Mexico does not allow for this type of fee to be charged, so this should be made into a priority to be discussed with the New Mexico Association of Counties as an item to be brought to the State Legislature. We believe that other counties would agree that a solid waste impact fee would be beneficial, is equitable, and should be allowed.

- Open dialogue with the Santa Fe Solid Waste Management Agency (SFSWMA) and the City of Santa Fe to address the issues of allowing SFSWMA the ability to attract Los Alamos County, North Central Solid Waste Authority and others to utilize the La Caja landfill. Recently, the tipping fees increased from $25/ton, to $32.50/ton, with expected increases within a year. The current structure of the landfill makes for a continuance of increased fees if it cannot attract more users and realize an economy of scales. The latest increase is projected to cost the County Solid Waste Program and additional $100,000 - $120,000 in tipping fees in FY2010, with a forecast of a proportional increase each fiscal year that tipping fees are increased.
  - It was agreed by the task force that prior to discussion of opening the landfill to new users, the infrastructure of the road MUST be primarily addressed. There is concern from residents and users of the area over the safety of the road and increasing risks of accidents with the increase of users. If the road can be made safer by installing proper turn-out lanes for the large trucks, then the idea of opening up the landfill to more users is a favorable one.
  - If SFSWMA will not open the landfill to more users, and tipping fees continue to increase, then it is the consensus of the task force that

Santa Fe County begin looking into other options to dispose of solid waste if lower tipping fees and associated costs can be achieved.

- Opportunity exists to utilize recycled materials to the benefit of the Solid Waste Program.
    - Open discussion with the Santa Fe Community College to allow the purchase of agricultural waste for their bio-fuels program.
    - Look into options for separation of recyclables and potential proceeds from the sale of these materials. With this option, a cost-benefit analysis should be performed to ensure it would benefit the County and not create more cost.

- Re-design the Solid Waste Permit Application to be more understandable, and perform more involved Outreach to constituents.
    - Take out confusing language, and make the application bilingual (English/Spanish)
    - Make applications available online and at satellite offices.
    - Keep up the utilization of satellite offices and ensure proper training of staff to handle and receive permit sales.
    - Prepare the County for the new ordinance and emphasize the benefits of the new options. Make a better effort of outreach via press releases, internet postings, and other announcements posted in rural areas.

APPENDIX I

Santa Fe County Waste Ordinance

SANTA FE COUNTY

ORDINANCE NO. 2005- 5

(REPEALING AND REPLACING SANTA FE COUNTY ORDINANCE NO. 2002-10) COMPREHENSIVE SOLID WASTE MANAGEMENT ORDINANCE

Section 1. Short Title

This Ordinance may be cited as the "Solid Waste Management Ordinance".

Section 2. Purpose

The purpose of this Ordinance is to:

- establish a system of storage, collection, and disposal of all refuse Generated in the Unincorporated area of the County;
- establish a schedule of fees for the use of the storage, collection, and disposal system as well as penalties for the violation of this Ordinance; and
- to provide for the safety, preserve the health, promote the prosperity and improve the morals, order, comfort and convenience of the County and its inhabitants.

Section 3. Authority

This Ordinance is enacted pursuant to the authority granted to counties in (i) NMSA 1978, § 4-37-1 to, among other things, provide for the safety, preserve the health, promote the prosperity and improve the morals, order, comfort and convenience of the County or its inhabitants and (ii) NMSA 1978, § 4-56-1 through § 4-56-3 to establish, maintain, manage, and supervise a system of storage, collection and disposal of refuse.

Section 4. Definitions

The following words shall have the following meanings in this Ordinance, unless the context clearly indicates or requires a different meaning.

The words "shall" or "must" are mandatory and not discretionary; the words "may" or "should" are permissive.

"Administrator" means the Santa Fe County Manager or such other office or employee of Santa Fe County who he designates to be responsible for the management of Santa Fe County's solid waste system and programs.

"Asbestos Waste" means the friable solid waste that contains more than one percent asbestos by weight and that can, when dry, be crumbled, pulverized or reduced to powder by hand pressure.

"Ashes" means the solid residue from the burning of wood, coal, coke or other combustible material.

"Authorized Commercial Solid Waste Hauler" means a Commercial Solid Waste Hauler that has an established commercial billable account with Santa Fe County, which has not been suspended for nonpayment of service fees or for violation of this Ordinance.

"Authorized Reuse Area" means a posted area provided at a Transfer Station in which persons may leave unwanted reusable materials.

"Bagged Wastes" means garbage, refuse, rubbish, solid wastes, pet wastes that is placed in a flexible container (bag) with a single opening that is closed and tied in a manner so as to prevent spillage or escape of the materials during transport and prior to delivery to a transfer station.

"Board of County Commissioners" means the Board of County Commissioners of the County of Santa Fe.

"Brush and Tree Waste". See Land Clearing Debris.

"Caja-del-Rio Landfill" means the disposal site permitted by the New Mexico Environment Department and operated by the Solid Waste Management Agency, an entity jointly created by the governments of the City of Santa Fe and the County of Santa Fe.

"Caretaker" means a solid waste facility attendant.

"Clean Fill" means broken concrete and asphalt pavement pieces not larger than 18"x12"x 6", brick, stone, rock, and uncontaminated soil. Clean Fill must be free of other Solid Wastes or Hazardous Waste, and the use of this material must not create a public nuisance or adversely affect the environment in which it is placed.

"Clean Woodwaste" means pallets, unpainted and untreaded scrap wood, and carpenter trimmings that do not exceed 6 feet in length or 2.5 -feet in width. Clean Woodwaste does not include construction and demolition wood with attached wallboard, large amounts of nails, paint, metal bracing, or Brush and Tree waste.

"Commercial Solid Waste" means all types of solid waste generated by hotels, stores, offices, restaurants, warehouses, non-manufacturing activities at industrial facilities, sites containing four or more Dwelling Units, churches, schools, recognized educational institutions or other non-Residential Solid Waste generators.

"Commercial Solid Waste Contractor" means any person retained and paid to perform services that generates Solid Waste and/or that involves the processing, removal and transport of Solid Wastes, including, but not limited to, Construction and Demolition Debris and Land Clearing Debris, from dwelling units, commercial establishments, pueblos, or industries, but for

whom waste collection and transportation is auxiliary to the principal services they provide (e.g., remodeling contractors, "handymen", roofers, construction firms, carpet installers, gardeners, tree services, and land-clearing contractors). The term does not include an individual transporting solid waste generated on or from their own, personal residential premises for the purpose of disposing of it in a NMED approved solid waste facility.

"Commercial Solid Waste Hauler" means any person whose primary service is to collect solid wastes or recyclable materials from single or multiple dwellings, commercial or business locations, industries or other generators of solid wastes and transport/haul them for the purpose of disposal or recycling.

"Commercial Solid Waste Fees" means fees charged Commercial Solid Waste generators, Commercial Solid Waste Contractors, or Authorized Commercial Solid Waste Haulers in order to use Transfer Stations.

"Commercial Vehicle" means any Class 3 vehicle that exceeds a one-ton vehicle rating; weighs more than 8,000 pounds when empty, and/or has sideboards higher than three (3) feet above the floor of the box or trailer bed. Commercial Vehicle also includes up to any Class 3 one-ton rated or larger vehicle towing (i) a two (2) axle trailer longer than 16 feet or with sideboards three (3) feet or higher measured from the trailer bed; (ii) a three (3) axle trailer; or (iii) any horse trailer that can haul more than two (2) horses. Commercial Vehicle also includes any Class 4 or higher vehicle. Class vehicle references used herein are as defined by the Federal Highway Administration.

"Composting" means the biological decomposition of green waste and other organic solid waste under controlled conditions to create a soil amendment product for beneficial use as a source of nutrients, organic matter, erosion control, or other essential constituent for a soil or plant.

"Construction and Demolition Debris" or "C&D Debris" means non-hazardous, uncontaminated materials resulting from the construction, remodeling, repair, and demolition of structures, utilities, and roads. C & D debris is generally considered water insoluble and nonhazardous, and includes, but is not limited to; bricks, concrete, and other masonry materials, asphalt, roofing materials, steel, glass, pipe, gypsum wallboard and lumber. Construction and Demolition Debris does not include asbestos, garbage, corrugated container board, electrical fixtures containing hazardous liquids such as fluorescent light ballasts or transformers, fluorescent lights, furniture, appliances, tires, drums, containers greater than ten gallons in size, any containers having more than one inch of residue remaining on the bottom, fuel tanks, brush and tree remains or other vegetative material from land clearing, uncontaminated soil, rocks, or liquids, including, but not limited to, waste paints, solvents, sealers, adhesives or potentially hazardous materials.

"Convenience Center". See "Transfer Station".

"Corrugated Cardboard" or "Old Corrugated Cardboard" or "OCC" means woodpulp based Kraft paper material that has two, usually smooth, exterior layers and one wavy corrugated interior core, which is used to make cardboard boxes, shipping containers, and packing liners. Corrugated Cardboard always has a corrugated middle layer and may have shinny printing on the outside. OCC does not include wax-coated cardboard, boxboard,

cardboard with permanently attached packing materials, cardboard contaminated with food or oils, or single layer boxboard (e.g., cereal, shoe, gift, food boxes, beer cartons).

"County" means the area within the exterior boundaries of the County of Santa Fe, New Mexico, including privately owned lands or lands owned by the United States or the State of New Mexico, but excluding the areas within the limits of any incorporated municipality or federally recognized pueblo or tribal federal trust lands.

"County Manager" means the County Manager of the County of Santa Fe.

"County Resident" means any person residing within the ~~exterior~~ interim boundaries of the County and outside the exterior boundaries of any incorporated area, municipality or federally recognized pueblo or tribal federal trust lands.

"Dispose" or "Disposal" means the abandonment, discharge, deposit, placement, injection, dumping, spilling, or leaking of any unwanted or unusable solid waste into or on any land or water.

"Dwelling" or "Dwelling Unit" means a structure, including, but not limited to, a mobile home, or portion thereof that (i) has bathroom and kitchen facilities permanently installed and (ii) is used or intended to be used by a person or persons for residential purposes. In the case of an apartment complex, each Dwelling within the complex that is or can be separately leased for residential purposes constitutes a separate Dwelling Unit.

"Electronic Waste" or "E-Waste" means relatively expensive and essentially durable electronic products used for data processing, telecommunications or entertainment by private households and businesses, including, but not limited to, computers and related equipment and peripherals, monitors, plotters, scanners, copiers, fax machines, entertainment electronics, VCRs, stereos, CD players, mobile phones, personal digital assistants, and game consoles. Electronic Waste does not include televisions, electric fixtures, small or large household appliances (e.g., washers and dryers), coffeemakers, microwaves, toasters, or electric and electronic tools.

"Fee" or "Fees" means residential fees and **"Commercial Solid Waste Fees"** assessed for use of Transfer Stations, in accordance with the fee schedules specified herein.

"Garbage" means putrescible solid waste resulting from the preparation, cooking and consumption of food and from the handling, storage and sale of food products and the carcasses of animals, including, but not limited to, animal and vegetable wastes, swill, carrion, and slops. Garbage originates primarily in home kitchens, stores, markets, restaurants and other places where food is stored, prepared or served.

"Generator" means any person whose act or process produces a solid waste or whose act first causes solid waste to be subject to regulation.

"Green Waste" means yard waste, lawn clippings, leaves and tree trimmings.

"Hazardous Waste" means (i) any solid, semi-solid or liquid waste resulting from industrial, commercial, mining or agricultural operations or from community activities or other discarded material that by reason of its quality, concentration, composition or physical or chemical characteristics may do any of the following: cause or significantly contribute to an increase in mortality or an increase in serious irreversible illness or incapacitating reversible illness, or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed, or otherwise managed; (ii) any solid, semi-solid or liquid waste so designated by the rules and regulations promulgated pursuant to this ordinance; (iii) any solid, semi-solid or liquid waste that meets any of the Resource Conservation Recovery Act (RCRA) hazardous waste criteria (i.e., ignitable, corrosive, reactive or toxic) or specifically listed in 40 CFR 261 and that is not excluded from regulation as a hazardous waste in 40 CFR 261.4 (b), (iv) any solid, semi-solid or liquid waste that is identified as "Hazardous Waste" in the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq., (v) any solid, semi-solid or liquid waste that meets the definition of or is identified as a "Hazardous Substance" in the Comprehensive Environmental Response, Compensation, and Liability Act 42 U.S.C. Section 9601 et seq., as each such law and regulation may be amended from time to time. Hazardous Waste also means any solid, semi-solid, or liquid waste that, because of its properties, is considered Hazardous Waste ~~or~~ and is required to be disposed of at an appropriately permitted Hazardous Waste facility under any analogous or succeeding federal, state, or local law, rule or regulation or by any governmental agency or unit having appropriate jurisdiction.

"Hearing Examiner" means the County Manager or his/her designee.

"Hot Waste" means any waste that is hot to the touch, on fire, smoldering or that may ignite once placed with other solid wastes at a Solid Waste Facility. Also see the definition of **"Ashes"**.

"Household Waste" means any solid waste, garbage derived and discarded from Dwelling Units, hotels, motels, public and private campgrounds, picnic grounds, and day-use recreation areas.

"Household Hazardous Waste" or **("HHW")** means a wide range of household products that have the characteristics of Hazardous Waste including but not limited to, pesticides and herbicides, oil based paints, liquid latex paints, stains and varnishes, automobile fluids (e.g., antifreeze, motor oil, transmission, steering and brake fluids, gasoline), batteries (automotive and household), pool chemicals, hobby chemicals, darkroom chemicals. Federal law specifically exempts Household Hazardous Waste from regulation as Hazardous Waste because of the point of generation. Because of the hazards posed by HHW, it should not be placed with other Solid Waste for disposal. See **"Special Waste"**.

"Household Medical Waste" means Household Waste that, but for its point of generation, would be a regulated Medical Waste. (e.g., used sharps, including hypodermic needles, bloody/soiled bandages and dressings, disposable sheets and clothing, medical gloves, dialysis machine filters, etc.).

"Illegal Dumping" means disposal of any solid waste, recyclable material, at any location other than at an approved Solid Waste Facility.

"Industrial Solid Waste" means solid waste generated by manufacturing or industrial processes that is not hazardous waste regulated under Subtitle C of Resource Conservation and Recovery Act (RCRA). Such waste may include, but is not limited to, waste resulting from the following processes: electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals, plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment. This term does not include mining waste or oil and gas waste.

"Infectious Waste" or **"Regulated Medical Waste"** means any solid waste that is generated in the diagnosis, treatment (e.g., provision of medical or veterinary services), or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals. The term does not include any "Hazardous Waste." Includes biological products (e.g. vaccines, cultures), blood products, body fluids, infectious wastes, or materials soiled with these products from hospitals, clinics, nursing homes, health maintenance organizations, doctor and dentist offices, blood plasma centers, laboratories, veterinary practices or as specified in 20 NMAC 9.1 (706). Includes a limited class of substances that carry a probable risk of transmitting disease to humans, including but not limited to:

1. Microbiological laboratory wastes, including cultures and stocks of infectious agents from clinical research and industrial laboratories, and disposable culture dishes and devices used to transfer, inoculate and mix cultures;

2. Pathological wastes, including human or animal tissues, organs and body parts removed during surgery, autopsy or biopsy;

3. Disposable equipment, instruments, utensils, and other disposable materials which require special precautions because of contamination by highly contagious diseases;

4. Human blood and blood products, including waste blood, blood serum, and plasma;

5. Used sharps, including used hypodermic needles, syringes, scalpel blades, Pasteur pipettes and broken glass; and

6. Contaminated animal carcasses, body parts and bedding, especially those intentionally exposed to pathogens in research, in the production of biologicals or the "in vivo" testing of pharmaceuticals.

"Kraft Paper" and "Brown Paper Bags" means woodpulp based unbleached or bleached papers of high strength used for packaging, including brown paper bags.

"Land Clearing Debris" means vegetative matter resulting from activities such as land clearing and grubbing, utility line maintenance, seasonal, storm, fire or disease related cleanup of trees, and brush, from residential or commercial property or vacant land that do not exceed 24 inches in diameter and 6 feet in length, and any and the wood chips generated from such vegetative matter. Large amounts of tumbleweeds shall be considered "Land Clearing

Debris" as used herein. "Large amount" means the equivalent of 10 bags of tumbleweeds or greater. Land Clearing Debris does not include stumps, clean fill, or C&D Debris.

"Large Load" means (i) a load of Solid Waste weighing more than 4,200 pounds net weight or having a volume greater than 21.33 cubic yards; (ii) a load comprised exclusively of Land Clearing Debris weighing more than 5,400 pounds net weight or having a volume greater than 37.32 cubic yards; (iii) a vehicle towing a two-axle trailer longer than 16 feet; or (iv) any Commercial vehicle whether empty or with any size load.

"Litter" means solid waste or debris along public or private roadways, rights-of-way, trails, or paths that was (i) intentionally or unintentionally dropped or deposited by persons or (ii) fell from uncovered loads or from vehicles transporting solid wastes, Land Clearing Debris, Construction and Demolition Debris or other materials.

"Littering" means the act of causing Litter.

"Mixed Papers" means newspapers as delivered, magazines, glossy catalogs, glossy paper, office paper, and junk mail or any combination of these materials.

"Municipality" means any incorporated city, town or village within the County, whether incorporated under general act, special act or special charter, and incorporated counties.

"NMED" means the New Mexico Environment Department.

"Non-County Resident" means any person residing beyond the exterior boundaries of the County ~~or within an incorporated area or municipality within the County.~~

"Non transferable" means cannot be used by anyone other than the person (s) to which a transfer stations permit is issued; or as specified herein under Prohibited Acts.

"Open Burning" means the combustion of solid waste without:

1. control of combustion air to maintain adequate temperature for efficient combustion;
2. containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion; or
3. control of the emission of the combustion products, such that combustion products are ~~released directly or indirectly into the open air.~~

"Operator" means the person (s) responsible for the overall operation of all or any portion of a Solid Waste Facility.

"Owner" means the owner of real property, whether or not the owner resides on the property.

"Permit" means a document, certificate, sticker and/or permit card issued by Santa Fe County authorizing a person to use county operated transfer stations and recycling drop-off centers.

"Person" means a natural person or a firm, partnership, association, joint venture, corporation, estate, trust, company, or any other legal entity of any kind or their representative(s), agent(s), or assign(s).

"Premises" means an improved or unimproved parcel of land together with all appurtenances and structures thereon, whether intended for residential or commercial use, located within the County and outside the corporate limits of an incorporated area.

"Prohibited Load" means a load (i) that includes Prohibited Materials, as defined herein; (ii) from sources not authorized to use County transfer stations, e.g., incorporated areas of the County; (iii) from unauthorized commercial solid waste contractors; or (iv) that contains any other prescribed items as determined by Santa Fe County.

"Prohibited Materials" means solid wastes that (i) are considered Special Waste under New Mexico Solid Waste Management Regulations 20 NMAC 9.1 700-711; (ii) can cause operational problems, damage to equipment, pose health risks to workers, and/or can have an adverse impact on the environment, (iii) or any other solid waste that that Santa Fe County determines is unacceptable for disposal, recycling or reuse at Transfer Stations, as Santa Fe County may specify from time to time in written policies or on signs posted at the transfer stations. Prohibited Materials include, but are not limited to, the following types of solid waste:

Ammunition, or any items that have the ability to explode or cause injury when run over by heavy equipment and/or when exposed to an ignition source.
Animal wastes – horse, cattle and other large animal manures, including animal bedding mixed with large animal wastes.
Asbestos Wastes.
Automobiles and large automobile parts, automobile or equipment lead-acid batteries, automobile parts containing or that contained fluids or liquids (e.g., gasoline tanks). Does not include tire rims that have been removed from tires.
Dead Animals: whole dead animals must be delivered to Caja-del-Rio landfill.
Explosives, including fireworks or other items that have the ability to explode or ignite when exposed to an ignition source.
Hazardous Waste.
Hot Waste and Ashes.
Industrial Wastes.
Infectious Waste – Regulated Medical Waste.
Intact Bulk Containers
Large pieces and large loads of concrete, roofing materials, asphalt or rock. Such items must be delivered to Caja-del-Rio landfill.
Lead Acid Batteries
Liquids, including sewage, septage, and large quantities of frying fats.
Petroleum or Chemically Contaminated Soils.
Pressurized Cylinders.
Radioactive Waste.
Sewage, Septage and Holding Tank Pumpings.
Sludges.
Any other Item as specified by Federal, State or local regulation.

"Public Place" means any land owned by the community (or open to common use), such as streets, sidewalks, boulevards, alleys or other public ways and any and all public parks,

spaces, grounds and buildings.

"Putrescible Waste" means solid waste that contains organic matter capable of being decomposed by microorganisms and of such a character and proportion as to be capable of attracting or providing food for disease vectors and/or causing offensive odors. Includes but is not limited to food, spoiled meat, pet wastes, and soiled diapers. Wood is not considered to be putrescible.

"Recognized Educational Institution" means any governmental or private educational institution located in the County.

"Recover" means any act or process by which recyclables or reusables are separated from the solid waste stream for reuse or remanufacture.

"Recyclable Material" means material that would otherwise be solid waste but that can be collected, separated and/or processed, treated, reclaimed, and placed back in use in the form of raw materials, or that can beneficially be used or reused. Includes:

- Corrugated cardboard.
- Kraft paper and brown paper bags.
- Mixed Papers.
- Mixed containers, steel food containers, aluminum cans and used foil balls, and plastic bottles with necks marked with a 1 or 2 on the bottom.
- Glass food and beverage containers, all colors.
- Scrap metal.
- Used motor oil.
- Other containers, materials and papers not listed herein that Santa Fe County may determine to be recyclable in the future, or for which economically viable markets currently or in the future may exist.

"Recycling" means any process by which Recyclable Materials are collected, separated or processed and reused or returned to use in the form of raw materials or products.

"Refuse" means anything putrescible or nonputrescible that is discarded or rejected as useless or worthless. See Solid Waste.

"Regulated Appliances" means any device which contains and uses a Class I or Class II substance as a refrigerant and which is used for household or commercial purposes as defined in 42 U.S.C. 7671a regulations promulgated thereunder; including all air conditioners, refrigerators, chillers, or freezers, except such devices that are designed and used exclusively for military purposes, or as specified in U.S. EPA Clean Air Act (CAA) Section 608, and 40 CFR, Subpart F. The Federal Clean Air Act prohibits the venting or release of Freon, CFC and hydrochlorofluorocarbon (HCFC) refrigerant gases, from discarded appliances when they are disposed or recycled.

"Residential Solid Waste" means solid waste and recyclable material generated from a site that contains three or less Dwelling Units.

"Residential Vehicle" means motor vehicles in the following classes as defined by the Federal Highway Administration: (i) Class 1 Motorcycles; (ii) Class 2-Passenger Cars and (iii) Class 3-

Other Two-Axle, Four Tire, Single Unit Vehicles provided, however, that a Class 3 motor vehicle that exceeds a one (1) ton rating is not a residential vehicle. A Residential Vehicle may, without losing its Residential Vehicle classification, tow (i) a single axel trailer with three feet side-boards measured from the trailer bed; (ii) a two (2)-axle trailer that is a maximum of 16 feet long and that has a maximum of, three (3) foot sideboards measured from the trailer bed; (iii) a two-horse trailer. Does not include commercial vehicle as defined herein.

"Responsible Party" means the legal owner(s) of any premises located within the County, whether vacant, improved, or unimproved, on which Solid Waste is generated or found.

"Renter" or "Tenant" means a County Resident or other person who does not own the land on or dwelling or structure in which they reside or conduct their business, where such land, dwelling, or structure is located within the County.

"Reuse" means the return of a commodity into the economic stream for use in the same kind of application as before without change in its identity.

"Reuse Area" means a designated, marked area at a Transfer Station for the placement of unwanted materials that can reasonably be expected that another person could take and Reuse. Removing reusable items from the Reuse Area is authorized and is not Scavenging. Not all stations may have Reuse Areas.

"Rubbish". See Solid Waste.

"Scavenging" means the unauthorized searching through and/or taking of anything from discarded solid wastes or Recyclable Materials located within any area of a transfer station; provided, however, that the taking of items from a Reuse Area is authorized and does not constitute Scavenging.

"Scrap Tire" means any tire that is no longer suitable for its originally intended purpose because of wear, damage or defect. A scrap tire does not include a tire with a rim.

"Scrap Metal" means used or unwanted metal appliances (e.g., stoves, dryers, dishwashers, washing machines, water heaters), pieces or sheets of metal, metal toys, poles, bicycle frames, strapping wires, clean metal drums with bottoms removed, metal doors, or scrap aluminum. Scrap Metal does not include plastic appliances, microwaves, televisions, automobiles and ~~automobile parts, E-Waste, electrical wire, or Regulated Appliances.~~

"Secured Load" or "Covered Load" means any load covered in such a manner as to prevent (i) the covering or the load from becoming loose or detached; (ii) the creation of Litter; and (iii) the load from dropping, shifting, leaking or otherwise escaping.

"Septage" means the contents of a septic tank, cesspool or other residue from an individual or public owned sewage treatment facility.

"Sludge" means any solid, semisolid, or liquid waste resulting from the treatment of wastewaters, excluding treated liquid effluent generated from publicly or privately owned and operated municipal, commercial, or industrial waste water treatment plant, water supply treatment plant, or air pollution control device.

"Solid Waste" means all putrescible and non-putrescible materials generated or originating from residential, commercial, industrial, mining, or community activities or from agricultural operations that are discarded or rejected, whether (i) as being spent, useless, worthless or in excess to the owners at the time of such discard or rejection, (ii) as having served their intended use, or (iii) for any other reason. Materials that are stored and managed to facilitate their disposal, or are discarded from one use but are accumulated for reuse elsewhere unless specifically excluded by Federal or State regulation or variance. Solid Waste includes, but is not limited to, garbage, waste food, trash, rubbish, refuse, construction and demolition debris, and other solid or semi-solid materials. Solid Waste does not include untreated domestic sewage or radioactive waste.

"Solid Waste Facility" means a facility that is permitted or registered by the NMED and appropriately zoned and approved by the Board of County Commissioners to accept solid waste from the public. Solid Waste Facilities include convenience centers, transfer stations and landfills.

"Source Separation" means the segregation of recyclables and other recoverable materials from non-recyclable solid waste at the point of generation for separate placement in bins or receptacles at a Solid Waste Facility and/or for donations, sale or other disposition. Source Separation includes the separation of recyclables from each other if required by Santa Fe County policy. The residue remaining after recyclables are removed from the waste stream is not considered source-separated material.

"Special Wastes" means solid wastes that (i) require special handling, preparation, and/or transportation before disposal to ensure proper operation of transfer station facilities and/or (ii) have specific regulatory requirements to ensure protection of the environment and the public health, welfare and safety. Special Wastes include, but are not limited to, the following:

1. Ashes;
2. Construction and Demolition Debris;
3. Clean Fill;
4. Clean Woodwaste;
5. Electronic Waste (E-Waste);
6. Household Hazardous Waste (HHW);
7. Household Medical Waste;
8. Land Clearing Debris;
9. Motor Oil;
10. Pet Wastes;
11. Regulated Appliances;
12. Tires;
13. Scrap Metal;
14. Any other material that Santa Fe County may designate from time-to-time in written policies or on signs posted at Solid Waste Facilities.

"Storage" means the accumulation of Solid Waste for the purpose of processing or disposal.

"Transfer" means the handling and storage of solid waste for reshipment, resale, or disposal, or for waste reduction or resource conservation.

"Transfer Station" means a NMED registered or permitted Solid Waste Facility that collects and consolidates Solid Waste or Recyclable Materials in large containers or vehicles for transfer to another Solid Waste facility and includes, but is not limited to, a "convenience center" that accepts Solid Waste from Residential Solid Waste or Commercial Waste generators.

"Tribal Resident" means any person residing on federal trust lands within the interior boundaries of Santa Fe County and within the boundaries of a federally recognized Indian pueblo or tribe.

"Trip" means the unit by which a Permit holder's use of Transfer Stations to discard Solid Waste and Recyclable Materials is measured and charged against their Permit. A single journey to a Transfer Station is not necessarily a single Trip. Rather, the number of Trips a single journey to a Transfer Station equals depends upon the amount and type of Solid Waste being discarded. The following single journeys to a Transfer Station equals the number of Trips indicated:

(A) **Trip (one (1) punch of Permit) for All Solid Waste Loads Except Loads Comprised Exclusively of Land Clearing Debris and/or Clean Woodwaste.**

(1) At Transfer Stations with scales, one (1) trip is equal to a Residential Vehicle, with or without a trailer, discarding a maximum net weight of 1,400 pounds of Solid Waste. An additional Trip will be charged for each successive increment of 1,400 pounds of Solid Waste discarded up to a maximum of 4,200 pounds of Solid Waste (i.e., 1,401 pounds up to a maximum of 2,800 pounds of Solid Waste equals two (2) Trips and 2,801 pounds up to a maximum of 4,200 pounds of Solid Waste equals three (3) Trips).

(2) At transfer stations without scales, one (1) trip is equal to a maximum of 7.11 cubic yards of Solid Waste. An additional Trip will be charged for each successive increment of 7.11 cubic yards of Solid Waste discarded up to a maximum of 21.33 cubic yards of Solid Waste (i.e., 7.12 cubic yards up to a maximum of 14.22 cubic yards equals two (2) Trips and 14.23 cubic yards up to a maximum of 21.33 cubic yards equals three (3) Trips).

(B) **Trip (one (1) punch of Permit) for Loads Comprised Exclusively of Land Clearing Debris and/or Clean Woodwaste.** The Trip rates set forth in this Section A apply only to loads comprised exclusively of Land Clearing Debris and/or Clean Woodwaste. If such material is included with other Solid Waste, the Trip rates set forth above in Section A shall apply.

(1) At transfer stations with a scale, one (1) Trip is equal to a load of Land Clearing Debris weighing not more than 1,800 pounds net weight. An additional Trip will be charged for each successive increment of 1,800 pounds of Land Clearing Debris up to a maximum of 5,400 pounds of Land Clearing Debris (i.e., 1,801 pounds up to a maximum of 3,600 pounds of Land Clearing Debris equals two (2) Trips and 3,601 pounds up to a maximum of 5,400 pounds of Land Clearing Debris equals three (3) Trips).

(2) At transfer stations without scales, one (1) trip is equal to a maximum of 12.44 cubic yards of Land Clearing Debris. An additional Trip will be charged

for each successive increment of 12.44 cubic yards of Land Clearing Debris up to a maximum of 37.32 Cubic Yards of Land Clearing Debris (i.e., 12.45 cubic yards up to a maximum of 24.88 cubic yards of Land Clearing Debris equals two (2) Trips and 24.89 cubic yards up to a maximum of 37.32 cubic yards of Land Clearing Debris equals three (3) Trips).

"Typical Weight" means the billable weight for any Commercial Solid Waste Hauler, Commercial Solid Waste Contractor, or Commercial Solid Waste Generator (individually, "Commercial Entity") that is required to establish a billable commercial account and that delivers Solid Waste or Special Wastes to any County transfer station that does not have a scale. A Typical Weight must be established for each vehicle used by the Commercial Entity. A vehicle's Typical Weight shall be determined by weighing the vehicle, fully loaded with Solid Waste or Special Wastes, a minimum of three times at the Eldorado transfer station, on a minimum of three different occasions, to determine the vehicle's Net Weight. The sum of the Net Weight from each weighing shall be divided by the number of weighings to determine the vehicle's "Typical Weight". Vehicles shall be re-weighed at least once per year thereafter, and, if appropriate, adjustments shall be made to the Typical Weight based upon the results of the re-weighing. Billing charges will be determined by multiplying the Typical Weight by the amount per ton/pound charged by Santa Fe County.

"Vehicle Weight " means;
(1) Gross Weight is the total weight of a vehicle, including passengers and the Solid Waste being transported. In other words, Gross Weight is the weight as delivered before a load is dumped.
(2) Weight is the weight of the vehicle, including passengers, after the Solid Waste has been dumped.
(3) Net Weight is the difference between Gross Weight and Tare Weight. The Net Weight is the billable or assessed weight of the Solid Waste delivered.

"White Goods" means large metal appliances, washers, dryers, microwaves, and dishwashers.

"Yard Waste" means vegetative matter resulting from landscaping and/or land clearing.

Section 5. Administration

(A) The County Manager or his/her designee is responsible for the administration of Solid Waste Management Ordinance.

(B) The County Manager may delegate any or all of the administrative functions, powers and duties specified herein to other appropriate Santa Fe County divisions and departments as deemed necessary to carry out the requirements of this ordinance.

(C) The County Manager shall establish rules and regulations to carry out the intent and purpose of this Ordinance, shall establish policies and procedures for operations, the billing and collection of service fees, administrative enforcement actions and appeals, and grievances.

(D) The County Manager shall recommend fees to the Board of County Commissioners. Fees other than those provided for in this Ordinance or increased fees shall be adopted by amending this Ordinance.

(E) The County Manager shall have the authority to delay or refuse the use of transfer station services for failure to comply with this Ordinance or the rules and regulations promulgated pursuant to it. The County Manager may also take legal action to collect fees owed Santa Fe County pursuant to this Ordinance.

(F) The County Manager may initiate studies for the need, location, and operation of facilities to recover material or energy from Solid Waste or improved or additional collection services and to implement programs to achieve resource recovery and other studies which will benefit management of Solid Waste in Santa Fe County.

(G)This Ordinance empowers the County Manager to address special wastes, encourage recycling and waste minimization, maintain quality standards and educational support of comprehensive solid waste management. The County Manager may utilize alternative disposal methods other than the Caja Facility.

(H) Upon the recommendation of the County Manager, Santa Fe County may implement a licensing requirement and franchise fee on the collection and transport of Solid Waste, either by amending this Ordinance or enacting another Ordinance.

(I) The County Manager may develop and establish procedures and guidelines for waiving or modifying the requirements of this Ordinance in non-emergency situations.

(J) In the event of an emergency condition, the County Manager may waive or modify the requirements of this Ordinance without regard to any procedures or guidelines promulgated under this Ordinance. In that event, the County Manager shall immediately notify the Board of County Commissioners of the requirements of the Ordinance that were waived or modified as well as the circumstances and duration of the emergency condition.

Section 6. Solid Waste Collection Authorization

(A) *Implementation of Solid Waste Regulation.* Except as otherwise provided herein, all Solid Waste accumulated in the County shall be collected and conveyed to an approved disposal site by the Solid Waste generator or authorized Commercial Solid Waste Contractor or Commercial Solid Waste Hauler in accordance with this Ordinance and State and Federal regulations. Approved disposal sites include the Caja del Rio land facility, County Transfer Stations or other NMED Solid Waste Facilities.

(B) *Handling of Solid Waste by Others.* Section 6.A of this Ordinance shall not prohibit the actual producers of solid waste or the owners of premises upon which solid waste has accumulated from personally collecting, conveying and disposing of such solid waste. The producers or owners shall comply with the provisions herein, and with any other applicable laws or ordinances which regulate the disposal of solid waste, and shall pay all applicable collection fees, whether the solid waste collection service is utilized or not.

(C) *Interference With County Employees.* It shall be unlawful for any person to interfere with the County Manager or with any authorized County employees or with any duly authorized contracted employees, while in the performance of their duties, as authorized by this Ordinance and any applicable regulations.

Section 7. Solid Waste Preparation Requirements

(A) *Separation of Solid Waste.* In order to be accepted at County Transfer Stations, garbage, ashes, construction and demolition debris, land clearing debris, scrap metal, tires, waste oil, and recyclable materials shall be separated and prepared in accordance with this ordinance and policies posted at County Transfer Stations.

(B) *Residential Solid Waste.* Residential Solid Waste shall be bagged and shall be free of liquids. Burned Residential Solid Waste shall be not be accepted. Large Loads of Residential Solid Waste shall not be accepted.

(C) *Green Waste.* Yard waste, weeds, lawn clippings, and leaves shall be bagged, unless put in with land clearing debris for grinding.

(D) Land Clearing Debris and Clean Woodwaste shall be cut to a length of six feet or less, and shall not have a diameter greater than 24 inches. Stumps shall not be delivered to County transfer stations. Land Clearing Debris and Clean Woodwaste must be delivered to designated Transfer Stations and unloaded in accordance with posted rules and regulations.

(E) *Scrap Tires.* Used vehicle tires shall be accepted from private residents only. Rims shall be removed prior to delivery or an extra trip will be assed for each delivery with rims. Each household shall be permitted to dispose of (8) eight tires per month.

(F) *Recyclable Materials.* Recyclable materials identified individually herein must be source separated from other Solid Wastes and placed in recycling bins as required or as posted or instructed at County Transfer Stations.

(G) *Corrugated Cardboard.* Kraft paper bags, and mixed papers, as defined herein or on signs at County Transfer Stations, shall not be placed in with Solid Wastes for disposal. Cardboard shall be source separated, flattened and placed in cardboard recycling bins as provided at transfer stations. Mixed papers shall be source separated as instructed and placed in mixed paper recycling bins.

(H) *E-Waste.* Shall be source separated from other Solid Wastes. E-Waste may only be delivered at special E-Waste collection events, or taken to an E-Waste reuse or recycling firm.

(I) *Household Hazardous Waste.* Household Hazardous Waste should be used up according to label instructions. Household Hazardous Wastes are not accepted at Transfer Stations. Rather, Household Hazardous Wastes must be source separated from other Solid Wastes, stored in the original containers, and taken to a Household Hazardous Waste collection event.

(J) *Household Medical Waste.* Household Medical Waste can be placed in with residential Solid Wastes. Used sharps must be placed in an approved sharps container or a thick walled strong plastic bottle with a tight fitting lid (e.g., a liquid laundry soap bottle) prior to disposal with bagged Residential Solid Waste. Used sharps may not be placed in soda bottles, milk jugs, or other thinned walled containers. Under no circumstances shall used sharps be placed in recyclable bottles, as they can cause injury to workers.

(K) *Scrap Metal/White Goods.* Residential white goods such as washers, dryers, dishwashers, etc., are considered recyclable materials. Scrap metal shall not be placed in with Solid Wastes for

disposal. These items will be accepted as a no charge item at all transfer stations that are identified as accepting scrap metal. Regulated Appliances are not white goods.

(L) *Regulated Appliances.* Shall be accepted at no charge if freon or other coolant has been removed prior to delivery and the appropriate CFC removal verification sticker is attached. Regulated appliances that do not have an affixed CFC removal may, in the County's discretion, be accepted, subject to a Trip rate charge as posted at the Transfer Stations.

(M) *Motor Oil.* Shall not be mixed with other Solid Wastes. Motor oil shall be delivered in leak-proof containers with secure lids and placed in a storage area or in collection containers as directed by a caretaker. Motor oil shall be collected from private residents only. A maximum of 5 gallons of motor oil will be accepted per visit.

(N) *Ashes*. Hot ashes will not be accepted at County Transfer Stations. Cold ashes are those that are held at least 24 hours prior to delivery to a County Transfer Station, and shall be accepted. Cold ashes shall not be placed in with other Solid Wastes for disposal but, rather, shall be placed in a designated ash container as directed by the caretaker.

(O) *Prohibited Materials.* Prohibited materials shall not be delivered to any County transfer station.

(P) *Commercial Vehicles and Large Loads.* Commercial Vehicles may not be used at and Large Loads may not be delivered to any County Transfer Station. Rather, Commercial Vehicles and Large Loads must be delivered directly to the Caja del Rio landfill or another NMED approved solid waste landfill facility.

(Q) *Commercial Solid Waste.* Commercial Solid Waste will only be accepted at County Transfer Stations in quantities less than 9,000 pounds (i.e., 4.5 tons) Net Weight. Loads exceeding 9,000 pounds Net Weight shall be delivered to the Caja del Rio landfill or other NMED approved solid waste landfill facility.

(R) *Covered Loads.* All loads delivered to the Solid Waste Facilities shall be covered or secured. Failure to cover or secure loads will subject the violator to an additional charge and/or citation.

(S) *Construction and Demolition Debris.* C&D debris shall be cut to a length of six feet or less and to a width of 24 inches or less.

(T) *Clean Fill.* Shall be separated from other Solid Wastes and shall be placed in designated fill areas, if available. In order to be accepted in the clean fill area(s), individual pieces cannot be larger than 18"x12"x 6". (All sites may not have clean-fill areas). Clean fill shall not be placed in waste or recycling collection boxes or compactors. Large loads, slabs, or pieces larger than specified must be taken to the Caja del Rio landfill or other NMED approved Solid Waste landfill facility.

Section 8. Ownership of Solid Waste

Until such time as the Solid Waste is deposited in a landfill or an NMED approved Solid Waste Facility or removed by a Commercial Solid Waste Hauler or Commercial Solid Waste Contractor, all Solid Waste generated within the County is owned by and is the responsibility of the Generator or, should the Generator fail to remove the Solid Waste from the Responsible Party's property, the

Responsible Party. A Commercial Solid Waste Hauler or Commercial Solid Waste Contractor who removes Solid Waste from a property shall take ownership of the Solid Waste until it is taken to a Transfer Station or an NMED approved Solid Waste Facility. The Generator of the refuse or Responsible Party shall certify that the refuse complies with environmental regulations for household or commercial waste. In the event the refuse is determined to be hazardous or not appropriate for disposal at the Transfer Station, the County reserves the right to assess the Generator or Responsible Party with the costs of processing and disposal of the refuse.

Section 9. Collection of Solid Waste

(A) *Collection Points.* Santa Fe County will establish and maintain Solid Waste and recycling transfer stations at such places with such hours as it may determine to be expedient from time to time. As of the passage of this Ordinance, Santa Fe County maintains the collection centers described below:

Convenience Center	*Location*	*Community*
Nambe	NM 503	Chimayo/Nambe
Jacona	NM 502	Pojoaque/Jacona
Tesuque	NM 592	Tesuque/Chupadero
San Marcos	CR 42	Cerrillos/Galisteo
Eldorado	US 285	Eldorado/Hondo
Stanley	CR 17A	Stanley/Edgewood
La Cienega	CR 54B	La Cienega/ LaCieneguilla

Section 10. Prohibited Solid Wastes

The following types of Solid Wastes are prohibited at any County Transfer Station. It shall be a violation of this Ordinance for any person to deliver or attempt to deliver such Solid Wastes to a County Transfer Station:

(A) Any type of Solid Waste regulated as a "Special Waste" under 20 NMAC 9.1.700.

(B) **Regulated Medical Waste.** All Regulated Medical Wastes must be properly "red bagged" and handled by a licensed medical waste hauler. The producer shall be responsible for the proper disposal of Regulated Medical Waste.

(C) **Hazardous Waste.** Hazardous waste shall not be collected, transported, or disposed of unless in full compliance with local, state and federal regulations regarding transportation and disposal. The producers or possessors of such material shall immediately notify Santa Fe County, who shall provide technical assistance on the proper collection and disposal of such material. In doing so, however, Santa Fe County shall not assume responsibility for the proper collection and disposal of such material.

(D) **Any Prohibited Materials,** as defined herein.

(E) **Large Loads,** as defined herein.

Section 11. Prohibited Acts

In addition to any other act prohibited under this Ordinance, the following acts are prohibited. Violators may be cited and, if convicted, punished in accordance with Section 12 of this Ordinance.

(A) *Permit Abuses.* Obtaining a permit under false pretenses, using a permit for other than its authorized purposes, the unauthorized transfer of a permit to another person, or the counterfeiting of permits.

(B) *Uncovered Loads.* Transporting and delivering uncovered/unsecured loads.

(C) *Unbagged Loads.* Transporting and delivering unbagged wastes that are required to be bagged under this Ordinance.

(D) *Preparation Requirements.* Not properly preparing or disposing of materials as specified in Section 7, "Solid Waste Preparation Requirements", of this Ordinance.

(E) *Unauthorized Locations/After Hours Disposal.* Disposal of wastes at unauthorized locations within a Transfer Station. Leaving wastes at Transfer Stations after hours.

(F) *Prohibited Materials.* Delivery and disposal or the attempted delivery or disposal of Prohibited Materials.

(G) *Hazardous Wastes.* Delivery and disposal or the attempted delivery or disposal of Hazardous Waste in any manner other than as provided for in the Hazardous Waste Act, NMSA 1978, 74-4-1, et seq.

(H) *Misuse of Recycling Bins/Areas.* Disposal of non-recyclable Solid Wastes, Refuse, or Garbage in recycling bins or in recycling collection areas.

(I) Scavenging.

(J) *Interference with Caretakers.* Interfering with, harassing, or assaulting a Caretaker or other Santa Fe County employee working at a Transfer Station.

(K) *Required Recycling.* Disposal of Corrugated Cardboard, Kraft Paper, and/or Mixed Papers other than in recycling collection bins.

(L) *Large Loads.* Disposal of Large Loads or disposal of Solid Waste using Commercial Vehicles.

(M) Illegal Dumping.

(N) *Accumulation of C & D Debris.* Debris resulting from construction or demolition of structures may be collected within an active construction site only if the Solid Waste is contained in such a manner that it will not be carried or deposited by the elements upon any street, sidewalk, parkway, sewer, ditch, arroyo, other public place, vacant lot, or into any premises within the County.

(O) *Open Burning.* Open Burning of Solid Waste is prohibited within the County; provided, however, that the burning of certain types of Yard Refuse pursuant to a validly issued permit from the County Fire Marshall shall not constitute prohibited Open Burning.

(P) *Accumulation of Solid Waste.* It shall be unlawful to allow any Solid Waste to unreasonably collect or accumulate on any lot or other premises within the County.

(Q) *Posted Policies.* Failure to follow written or posted policies and procedures concerning the disposal of Solid Waste at Transfer Stations.

Section 12. Enforcement and Penalty Schedules

(A) The Santa Fe County Sheriff and his deputies, Solid Waste Compliance Officers, and Santa Fe County Code Enforcement Officers (collectively, "Authorized Enforcement Officers") are hereby authorized to enforce this Ordinance by issuing notices of violation and citations and/or by taking administrative action, such as confiscating a permit or revoking Transfer Station privileges, when such action is authorized herein and subject to the policies and procedures promulgated hereunder.

(B) Notice of Violation. Any person who violates any provision of this Ordinance may be issued a Notice of Violation or Citation. The decision whether to issue a Notice of Violation or Citation is a matter within the discretion of the Authorized Enforcement Officer.

(C) Any person who receives a Notice of Violation shall have the period specified in the Notice of Violation to complete the acts specified and/or to achieve compliance with the requirement cited. A Notice of Violation may set forth different compliance dates for each respective violation cited or act specified. Failure to remedy the violations cited or complete the acts specified within the time frames set forth in a Notice of Violation will result in the issuance of a Citation.

(D) Citation. An Authorized Enforcement Officer may institute a criminal prosecution for the violation of this Ordinance by issuing a citation charging the violation.

(E) Inspection. An Authorized Enforcement Officer may make such inspections as are reasonably necessary to the enforcement of this Ordinance. All portions of vehicles and containers used to haul, transport or dispose of Solid Waste and recyclable materials shall be subject to inspection to ascertain compliance with this Ordinance, as well as rules, regulations, and policies promulgated hereunder.

(F) Burden of Proof. In the event any person's name or other identification is affixed or found on any illegally disposed of Solid Waste, such evidence shall constitute prima facie evidence and presumptive proof of a violation of this Ordinance. In such case, the burden of proof to establish a non-violation of this Ordinance shall be on such person.

(G) Schedule of Penalties

Section Violated	1st Offense	2nd Offense	3rd and Subsequent Offenses
11(A) - Permit Abuses	Confiscation of permit and loss of privilege of the involved person(s) to use Transfer Stations for one year. If citation is issued and person charged is found guilty, the criminal penalty shall be a fine of up to $300 and/or up to 2 days in prison.	Confiscation of permit and loss of privilege of the involved person(s) to use Transfer Stations for one year. If citation is issued and person charged is found guilty, the criminal penalty shall be a fine of up to $300 and/or up to 7 days in prison.	Confiscation of permit and loss of privilege of the involved person(s) to use Transfer Stations for three years. If citation is issued and person charged is found guilty, the criminal penalty shall be a fine of up to $300 and/or up to 14 days in prison.
11(B) - Uncovered Loads	Assessment of two (2) additional Trips and/or issuance of citation. If citation is issued and person charged is found guilty, the criminal penalty shall be a fine of not less than $50.00.	Upon conviction after issuance of a citation, the criminal penalty shall be a fine of not less than $100.00.	Upon conviction after issuance of a citation, the criminal penalty shall be a fine of not less than $100.00 nor more than $200.
11(C) - Unbagged Loads	Written warning, assessment of one (1) additional Trip, and/or issuance of citation. If citation is issued and person charged is found guilty, the criminal penalty shall be a fine of not less than $25.00.	Upon conviction after issuance of a citation, the criminal penalty shall be a fine of not less than $50.00.	Upon conviction after issuance of a citation, the criminal penalty shall be a fine of not less than $100.00.
11(D) - Preparation Requirements	Written warning or issuance of citation. If citation is issued and person charged is found guilty, the criminal penalty shall be a fine of not less than $50.00.	Upon conviction after issuance of a citation, the criminal penalty shall be a fine of not less than $75.00.	Upon conviction after issuance of a citation, the criminal penalty shall be a fine of not less than $100.00 nor more than $200 for each violation.
11(E) - Unauthorized Locations/After Hours Disposal	Upon conviction after issuance of a citation, the criminal penalty shall be a fine of not less than $100.00 nor more than $300.00 and/or up to 30 days in jail.	Upon conviction after issuance of a citation, the criminal penalty shall be a fine of not less than $200.00 nor more than $300.00 and/or up to 60 days in jail.	Upon conviction after issuance of a citation, the criminal penalty shall be a fine of not less than $300.00 and/or up to 90 days in jail.
11(F) - Prohibited Materials	Confiscation of permit and loss of privilege to use Transfer Stations for one year. If citation is issued and person charged is found guilty, the criminal penalty shall be a fine of not less than $200 nor more than $300 and/or up to 90 days in jail. Possible referral to state or federal authorities for possible	Confiscation of permit and loss of privilege to use Transfer Stations for two years. If citation is issued and person charged is found guilty, the criminal penalty shall be a fine of not less than $500 nor more than $1,000 for each violation and/or up to 90 days in jail. Referral to NMED for possible	Confiscation of permit and loss of privilege to use Transfer Stations for two years. If citation is issued and person charged is found guilty, the criminal penalty shall be a fine of not less than $500 nor more than $1,000 and/or up to 90 days in

	additional action under state or federal law.	additional action.	jail. Referral to NMED for possible additional action.
11(G) - Hazardous Wastes	Confiscation of permit and permanent loss of privilege to use Transfer Stations. If citation is issued and person charged is found guilty, the criminal penalty shall be a fine of not less than $5,000 and/or 90 days in jail. Referral to NMED for possible additional action. State Law	Same as first offense.	Same as first offense.
11(H) - Misuse of Recycling Bins/Areas	Written warning or issuance of citation. If citation is issued and person charged is found guilty, the criminal penalty shall be a fine of not less than $50.00.	Upon conviction after issuance of a citation, the criminal penalty shall be a fine of not less than $50.00 nor more than $100.	Upon conviction after issuance of a citation, the criminal penalty shall be a fine of not less than $75.00 nor more than $200.
11(I) - Scavenging	Written warning or issuance of citation. If citation is issued and person charged is found guilty, the criminal penalty shall be a fine of not less than $50.00.	If citation is issued and person charged is found guilty, the criminal penalty shall be a fine of not less than $50.00 nor more than $100 for each violation.	If citation is issued and person charged is found guilty, the criminal penalty shall be a fine of not less than $100.00 nor more than $250.00.
11(J) - Interference with Caretakers	Upon conviction after issuance of a citation, the criminal penalty shall be a fine of not less than $100.00 nor more than $300.00 and/or 30 days in jail.	Upon conviction after issuance of a citation, the criminal penalty shall be a fine of not less than $200.00 nor more than $300.00 and/or 30 days in jail. In addition, the defendant shall be banned from Transfer Stations for not less than one (1) year.	Upon conviction after issuance of a citation, the criminal penalty shall be a fine of not less than $300.00 and/or 90 days in jail. In addition, the defendant shall be permanently banned from Transfer Stations.
11(K) - Required Recycling	Written warning or issuance of citation. If citation is issued and person charged is found guilty, the criminal penalty shall be a fine of not less than $25.00.	Upon conviction after issuance of a citation, the criminal penalty shall be a fine of not less than $50.00 nor more than $100.	Upon conviction after issuance of a citation, the criminal penalty shall be a fine of not less than $75.00 nor more than $200.
11(L) - Large Loads	Upon conviction after issuance of a citation, the criminal penalty shall be a fine of not less than $100.00 nor more than $300.00 and/or up to 30 days in jail.	Upon conviction after issuance of a citation, the criminal penalty shall be a fine of not less than $200.00 nor more than $300.00 and/or up to 60 days in jail.	Upon conviction after issuance of a citation, the criminal penalty shall be a fine of not less than $300.00 and/or up to 90 days in jail.
11(M) - Illegal Dumping	Upon conviction after issuance of a citation, the criminal penalty shall be a fine of not less than $300 nor more than $500 and/or 60 days in jail.	Upon conviction after issuance of a citation, the criminal penalty shall be a fine of not less than $500.00 nor more than $1,000.00 and/or 60 days in jail.	Upon conviction after issuance of a citation, the criminal penalty shall be a fine of not less than $500.00 nor

			more than $1,000.00 and/or 90 days in jail.
11(N) - Accumulation of C&D Debris	Upon conviction after issuance of a citation, the criminal penalty shall be a fine of not less than $25.00 nor more than $50.00.	Upon conviction after issuance of a citation, the criminal penalty shall be a fine of not less than $75.00 nor more than $100.00.	Upon conviction after issuance of a citation, the criminal penalty shall be a fine of not less than $100.

A violation of this Ordinance for which penalties are not specified above shall be subject to criminal penalties of a fine of not less than $50 nor more than $300 and/or 30 days in jail.

Section 13. Service Fees

All users of Transfer Stations must pay a service fee. The types of service fees for Residential Solid Waste and Commercial Solid Waste are set forth below.

(A) *Residential Solid Waste Service Fees.*

(1) Residential Solid Waste Permits consist of 24 Trip Cards, 10 Trip Cards, Recycling Admission Cards, and Bag Tags. Residential Solid Waste Permits may only be used to dispose of Residential Solid Waste and Recyclable Materials. Residential Solid Waste Permits are non-refundable. 24 Trip Cards, 10 Trip Cards, and Recycling Admission Cards may only purchased by a County Resident occupying a dwelling unit with a County-designated rural address or a person who is in the process of obtaining a rural address.

(2) County Residents are only allowed to purchase the number of 24 Trip Cards, 10 Trip Cards, and Recycling Admission Cards specified in Section 10(A)(3) of this Ordinance. 24 Trip Cards, 10 Trip Cards, and Recycling Admission Cards are non-transferable; that is, they can only be used by the County Resident who purchased the card or a member of the household who resides in the dwelling unit for which the card was issued. The unauthorized transfer of a 24 Trip Card, 10 Trip Card, or Recycling Admission Card is a violation of this Ordinance, punishable in accordance with Section 12 of this Ordinance. Residential Solid Waste Permits are valid only during the year printed on the permit. The costs of a 24 Trip Card, 10 Trip Card, or Recycling Admission Card shall not be pro-rated or discounted based on the month of purchase.

(3) Schedule of Residential Solid Waste Permit Fees.

Permit Type	Solid Waste Accepted	Number of Trips	Fee	Number allotted per year, per dwelling	Lost/Stolen Permit Replacement Fee
24 Trip Card	All Residential Solid Waste and all sorted Recyclable Materials, subject to the restrictions of this Ordinance and all rules, regulations, and policies promulgated hereunder, including the policies of individual Transfer Stations. Special Charges:	24	$35.00	2	$15.00

	Four (4) tires will be one (1) additional Trip. Additional Trips will be charged in accordance with the schedules and definitions set forth elsewhere in this Ordinance or in rules, regulations, and policies promulgated hereunder.				
10-Trip Card	All Residential Solid Waste and all sorted Recyclable Materials, subject to the restrictions of this Ordinance and all rules, regulations, and policies promulgated hereunder, including the policies of individual Transfer Stations. Special Charges: Four (4) tires will be one (1) additional Trip. Additional Trips will be charged in accordance with the schedules and definitions set forth elsewhere in this Ordinance or in rules, regulations, and policies promulgated hereunder.	10	$20.00	4	$15.00
Recycling Admission Card	Recyclable Materials only. Recycling Admission Cards will not be punched for recycling deliveries	Unlimited use for year	$15.00	1	$15.00
Bag Tags	Each Bag Tag is good for one bag of up to 30 gallons of Residential Solid Waste, subject to the restrictions of this Ordinance and all rules, regulations, and policies promulgated hereunder, including the policies of individual Transfer Stations.	5 tag minimum.	$5.00	Unlimited	Not replaceable

(4) The Board of County Commissioners may authorize a low-income and/or senior citizen credit for Residential Solid Waste Permits. To qualify for the low-income credit, the County Resident must have an annualized gross income that is at or below eighty percent of the area median family income for the County, as determined from time to time by the US Department of Housing and Urban Development. Should such credits be authorized by the Board of County Commissioners, the County Manager shall establish procedures by which County Residents may obtain such credits.

(B) *Commercial Solid Waste Fees.* Generators of Commercial Solid Waste, Commercial Solid Waste Contractors, and Commercial Solid Waste Haulers may not use Residential Refuse Permits to access Transfer Stations. Rather, they must buy Commercial Solid Waste Permits or establish Commercial Billable Accounts in accordance with this Section.

(1) Definitions.

a.) A Small Commercial Solid Waste Generator generates less than 5 tons (10,000 pounds) of Solid Waste per year.

b.) A Large Commercial Solid Waste Generator generates more than 5 tons (10,000 pounds) of Solid Waste per year.

(2) Small Commercial Solid Waste Generators. Small Commercial Solid Waste Generators must obtain a 24-trip SCG Permit to access Transfer Stations.

(3) Large Commercial Solid Waste Generators, Commercial Solid Waste Contractors, and Commercial Solid Waste Haulers.

a.) Commercial Billable Accounts. Large Commercial Solid Waste Generators, Commercial Solid Waste Contractors, and Commercial Solid Waste Haulers must establish a billable account with Santa Fe County to access Transfer Stations. Upon approval of their application, which shall be in a form authorized by and contain such information as is required by the County Manager, a billable account shall be established in the name of the Large Commercial Solid Waste Generators, Commercial Solid Waste Contractors, and Commercial Solid Waste Haulers.

b.) Payment Terms. The County will bill approved Large Commercial Solid Waste Generators, Commercial Solid Waste Contractors, and Commercial Solid Waste Haulers on a monthly basis. Payment is due within thirty (30) days of the billing statement. Amounts unpaid after the due date shall bear interest at the rate of four (4%) percent per annum. Unpaid balances that are past due by over 90 days shall result in the customer's account being suspended and their Transfer Station privileges revoked until the entire past due balance is paid in full.

c.) Prepayment May Be Required. The County Manager may, in his discretion, require a Commercial Billable Account holder to prepay on their accounts, such prepayment amounts to be determined based upon the credit risk of the account holder and their estimated monthly charges.

d.) Billable Weight. Commercial Billable Account holders shall be billed at the actual weight of their loads, for loads delivered to Transfer Stations with scales, or at their vehicle's Typical Weight, for loads delivered to Transfer Stations without scales.

(4) Schedule of Commercial Solid Waste Fees.

Commercial Service Type	Solid Waste Accepted	Number of Trips	Fee	Number allotted per year	Lost/Stolen Permit Replacement Fee
SCG Permit	All Residential Solid Waste and all sorted Recyclable Materials, subject to the restrictions of this Ordinance and all rules, regulations, and policies promulgated hereunder, including the policies of individual Transfer Stations. <u>Special Charges:</u> Four (4) tires without rims will be one (1) additional Trip. Additional Trips will be charged in accordance with the schedules and definitions set forth elsewhere in this Ordinance or in rules, regulations, and policies promulgated hereunder.	24	$50.00	2	$30
Billable Accounts	Bagged commercial refuse, all sorted recyclable materials, scrap metal, as specified in the approved application.	By actual or typical load weight, depending upon whether Transfer Station has scales or not.	$50.00 Ton $.025 per pound	N/A	N/A

Section 14. Injunctive Relief

Where any act in violation of this Ordinance threatens the public health, welfare, or safety, Santa Fe County may seek from a court of competent jurisdiction a restraining order or injunction requiring the abatement of such violation. Such injunctive relief shall be in addition to and not in lieu of any other remedy or penalty authorized in this Ordinance or under law.

Section 15. Recovery of Damages

A person violating this Ordinance is responsible for all damage caused to Transfer Stations or Santa Fe County equipment as a result of the violation. Santa Fe County may recover such damages from the violator in a lawsuit brought in a court of competent jurisdiction or as court ordered restitution in a criminal matter brought under this Ordinance or other law. Such recovery shall be in addition to and not in lieu of any other remedy or penalty authorized in this Ordinance or under law.

Section 16. Effective Date

This Ordinance shall be effective 30 days after it is duly recorded by the Santa Fe County Clerk.

Section 17. Repeal of Santa Fe County Ordinance 2002-10.

Santa Fe County Ordinance 2002-10 is hereby repealed, effective as of the effective date of this Ordinance.

PASSED, ADOPTED AND APPROVED BY THE BOARD OF COUNTY COMMISSIONERS OF THE COUNTY OF SANTA FE THIS 14 DAY OF JUNE, 2005.

BOARD OF COUNTY COMMISSIONERS

BY: _____
Michael Anaya, Chairman

Valerie Espinoza
Santa Fe County Clerk

Approved as to form:

_____
Stephen Ross
County Attorney

SFC CLERK RECORDED 06/15/2005

BCC ORDINANCE
PAGES: 26

COUNTY OF SANTA FE)
STATE OF NEW MEXICO) ss

I Hereby Certify That This Instrument Was Filed for Record On The 15TH Day Of June, A.D., 2005 at 13:12 And Was Duly Recorded as Instrument # 1384494 Of The Records Of Santa Fe County

Witness My Hand And Seal Of Office
Valerie Espinoza
Deputy _____ County Clerk, Santa Fe, NM

APPENDIX J

Agency, Fees, Rates, and Charges

SANTA FE SOLID WASTE MANAGEMENT AGENCY

ORDINANCE 2010-1

AN ORDINANCE REPEALING AND REPLACING ORDINANCE 2009-1 CREATING FEES, RATES AND CHARGES FOR USE AT ALL FACILITIES OPERATED BY THE SANTA FE SOLID WASTE MANAGEMENT AGENCY

BE IT ORDAINED BY THE JOINT POWERS BOARD OF THE SANTA FE SOLID WASTE MANAGEMENT AGENCY:

Section 1. PURPOSE. The purpose of this ordinance is to set forth the fees, rates, charges and conditions of service that shall be applicable at all facilities operated by the Santa Fe Solid Waste Management Agency.

Section 2. LEGISLATIVE AUTHORITY. The Santa Fe Solid Waste Management Agency was created by means of a duly approved Joint Powers Agreement between the City of Santa Fe and Santa Fe County acting under the authority of the Joint Powers Agreement Act (being Section 11-1-1 through 11-1-7, NMSA 1978). The governing body of the agency is a Board of Directors designated in accordance with the Joint Powers Agreement.

Section 3. DEFINITIONS

Composted Mulch: A product produced under a controlled aerobic thermophilic biological decomposition process and that meets the New Mexico Department of Transportation minimum specifications for composted mulch. Raw materials for composted mulch may include green waste and manure.

Commercial Truck Tire: Scrap tires with rim size more than 20 inches.

Conditionally Exempt Small Quantity Generator (CESQG): A generator that produces no more than 220 pounds of hazardous waste, or no more than 2.2 pounds of acutely hazardous waste, in a calendar month.

Construction and Demolition (C&D) Waste: Waste generated from the construction or demolition of a structure. C&D waste can consist of, but is not limited to, steel, brick, concrete, asphalt, roofing materials, pipe, gypsum board, wallboard, lumber, glass, paper, cartons, rubber, and plastics. C&D waste does not include regulated asbestos, garbage, hazardous materials, liquids, paints, solvents, adhesives, or sealers.

Contaminated Load: Any load of recyclables which contains materials other than those specified in an amount exceeding 10% by volume in a visual inspection.

Conventional Recyclables: Those materials defined as acceptable for recycling and posted at the facilities. Recyclables include, but are not limited to, old newspaper (ONP), old corrugated cardboard (OCC), magazines, junk mail, office paper, aluminum cans (UBC), aluminum foil, steel cans, #1 PET plastic bottles, #2 HDPE plastic bottles and glass bottles and jars prepared in accordance with SFSWMA's published requirements.

Dead Animals: Large animals typical of all breeds of livestock: cows, pigs, and horses; and small animals such as domestic cats and dogs. Dead animals include wildlife resulting from road kills but not from infectious diseases.

Electronic Scrap (E-Scrap): Category of surplus, obsolete, broken or discarded electronic devices including, but not limited to, computers, monitors, keyboards, mice, scanners, various computer peripherals, security equipment, fax and copy machines, cell phones and telephone equipment.

Executive Director: The Executive Director of the SFSWMA, as designated by the JPB.

Facilities: All facilities operated by the SFSWMA including the following;

Landfill Facility: Caja del Rio Landfill located at 149 Wildlife Way, Santa Fe, NM 87506.

Recycling & Transfer Facility: Buckman Road Recycling and Transfer Station (BuRRT) located at 2600 Buckman Road, Santa Fe, NM 87507.

Freon Bearing Device: Any device which contains and uses five (5) pounds or less of a Class I (CFC) or Class II (HCFC) substance as a refrigerant and which is used for household or commercial purposes, including any air conditioner, refrigerator, chiller or freezer.

Generator: Any person that produces solid waste by site or location to be shipped to any other site or location, or whose act or process produces a solid waste to first cause to become regulated.

Glass Aggregate: Glass bottles and jars which have been pulverized to produce two separate grades of aggregate <1/8 inch nominal size and <3/8 inch nominal size.

Green Waste: Vegetative organic matter resulting from landscaping, land maintenance and agricultural operations. Green waste includes, but is not limited to, cuttings and trimmings from trees, shrubs, or lawns and similar materials. Green waste does not include rock, dirt, metal, plastic, paper or any type of construction and demolition materials.

Gross Vehicle Weight (GVW): The total weight of the vehicle, any trailer, its occupants and contents.

Household Hazardous Waste (HHW): Leftover household products such as paints, cleaners, oils, batteries, and pesticides that contain potentially hazardous ingredients which require special handling when disposed of.

Immediate Burial: All materials including dead animals requiring immediate and secure disposal.

Joint Powers Agreement (JPA): The agreement between the City of Santa Fe and Santa Fe County which created the SFSWMA and conveys certain authorities and responsibilities to the

SFSWMA related to the construction, operation, maintenance, replacement, expansion and closure of a solid waste facility.

Joint Powers Board (JPB): The JPB which is the governing body of the SFSWMA and which is designated in accordance with the Joint Powers Agreement.

Mercury-Containing Lamp: Any bulb or tube portion of the lighting device that contains a small amount of elemental mercury.

Manure: Agriculture waste composed of animal waste and animal bedding materials that originated from sites approved by the SFSWMA and contains no contamination such as veterinary waste.

Mulch: Ground green waste of which 100% of material passes a two (2) inch screen and has been cured a minimum of ninety (90) days.

Non-Freon Bearing Appliance: Household appliances which are not designed to utilize Freon, including, but not limited to, stoves/ranges, hot water heaters, dishwashers and laundry machines which are a minimum of 60% metal by weight.

Owner: Owner, business owner or corporate owner responsible for waste and/or recycling being delivered to the facilities for disposal or recovery. The owner, business owner, or corporate owner will be responsible for certifying that all waste and recyclables meet New Mexico Environment Department, Federal, City and County rules, regulations and ordinances. The owner, business owner, or corporate owner will be responsible for all waste and recycling disposal and processing costs.

Oversized Mulch: Ground green waste of which 100% of material does not pass a 2" screen.

Passenger Tires: Scrap tires with rim size of 20 inches or smaller. Passenger tires include tires from motorcycles and ATV's.

Permits: The permits issued by the New Mexico Environment Department which authorize and direct the respective facility's operations.

Petroleum Contaminated Soil: The owner/generator of petroleum contaminated soil shall assure that all petroleum contaminated soils are tested under the requirements of 20.9.8.11 and 20.9.8.15 NMAC including total petroleum hydrocarbons (TPH) and other contaminants as required by facility's disposal management plan.

Salvaging: The controlled removal of materials for utilization, recycling, or sale.

Santa Fe Solid Waste Management Agency (SFSWMA): A joint powers agency created by the JPA and governed by the JPB.

Scavenging: The uncontrolled and unauthorized removal of materials from any point at the solid waste facilities.

Schedule of Fees: The schedule of fees, rates and charges assessed to persons making use of the facilities.

Scrap Metal: Appliances and other objects which consist of a minimum of 60% metal by weight. Scrap metal includes, but is not limited to, household appliances, some building materials and auto parts.

Scrap Tire: A tire that is no longer suitable for its originally intended purpose because of wear, damage or defect.

Sludge: Any solid, semi-solid, or liquid waste generated by a municipal, commercial or industrial waste water treatment plant, water supply treatment plant, or air pollution control facility. Sludge does not include treated effluent from a waste water treatment plant. The owner/generator shall assure that the sludge is tested under the requirements of 20.9.8.11 and 20.9.8.16 NMAC and as required by facility's disposal management plan.

Solid Waste: All putrescible and non-putrescible materials generated or originating from residential, commercial, industrial, mining, or community activities or from agricultural operations that are discarded or rejected, whether (i) as being spent, useless, worthless or in excess to the owners at the time of such discard or rejection, (ii) as having served their intended

use, or (iii) for any other reason. Solid waste does not include materials accepted for recycling or reuse or materials specifically prohibited by Section 7 of this ordinance.

Uncovered / Unsecured Load: Any load from which litter and debris can blow out of or fall from a vehicle.

Section 4. GENERAL PROVISIONS

A. Establishment of Enterprise Fund. For the purpose of defraying all expenses of receiving, disposing or recycling of solid wastes and recyclables a regional solid waste agency enterprise fund has been created. The SFSWMA shall establish fees, rates and charges designed to recover the full cost of services for the various services provided. All revenues received from fees, rates and charges shall be credited to the fund. The fund shall pay all direct and indirect operating expenses as well as principal and interest payments and all other costs of bond indebtedness.

B. Authority to Accept Waste and Recyclables: The SFSWMA shall at all times have the sole and exclusive right to determine whether it shall receive, retain, reject, dispose of or recycle any solid waste or recyclable.

Section 5. ESTABLISHMENT OF FEE CATEGORIES

A. Schedule of Fees. The rates, fees and charges assessed to persons making use of the facilities shall be in accordance with the Schedule of Fees and with the service classes described herein. The Schedule of Fees effective October 1, 2010 through June 30, 2011 is hereby adopted by reference and incorporated hereto as Exhibit A-1 and made effective upon adoption of this ordinance. The Schedule of Fees effective July 1, 2011 through June 30, 2012 is hereby adopted by reference and incorporated hereto as Exhibit A-2 and made effective upon adoption of this ordinance. The Schedule of Fees effective July 1, 2012 is hereby adopted by reference and incorporated hereto as Exhibit A-3 and made effective upon adoption of this ordinance. In accordance with the Gross Receipts and

Compensating Tax Act, Section 7-9-4.3, NMSA 1978, a governmental gross receipts tax of up to 5% shall be imposed on each billing rendered in accordance with this ordinance.

B. Service Classes.

1. Landfill Service. Mixed or separated solid waste intended for disposal at the Caja del Rio Landfill Facility. Landfill service is generally restricted to those vehicles which exceed 12,500 pounds GVW. The fee is established on the basis of weight as determined by the Landfill Facility and charged to the nearest twenty (20) pounds.

2. Transfer Service. Mixed or separated solid waste delivered to the Buckman Road Recycling & Transfer Station Facility and intended for transfer to the Caja del Rio Landfill Facility. Transfer service is generally restricted to vehicles which do not exceed 12,500 pounds GVW. The fee is established on the basis of weight as determined by the Recycling & Transfer Facility and charged to the nearest twenty (20) pounds.

3. Recycling Service. Mixed or separated conventional recyclables, green waste, scrap tires or scrap metal intended for recycling and delivered to the Buckman Road Recycling & Transfer Station Facility. Recycling service shall not be restricted by GVW. The fee is established on the basis of weight as determined by the Buckman Road Recycling & Transfer Station Facility and charged to the nearest twenty (20) pounds.

4. Contract Service. Solid waste or recyclables delivered to the facilities in a quantity or condition which merit special consideration through a contractual fee agreement. Contract service shall also apply to any materials produced for resale by the SFSWMA. All contractual fee agreements shall meet the requirements of relevant local and state procurement laws and regulations, and,

where applicable, the requirements of SFSWMA Policy No. 2010.1, Purchasing Procedures and Finance Policy.

5. Material Sales. The sale of materials produced by the SFSWMA and priced in accordance with this Ordinance or prevailing market price or sold to the highest qualified bidder.

Section 6. BILLING AND COLLECTION

A. The Executive Director shall establish procedures for the rendering of bills and receipt of payment including service contracts, security deposits and other guarantees of payment.

B. Fees are due within thirty (30) days following each monthly billing or as the Executive Director shall authorize. Any billed amount not paid by the date due shall become delinquent on that date.

C. A penalty of one and one half percent (1.5%) per month may be charged on all amounts which are delinquent.

D. The Executive Director may pursue all available means of collection of delinquent amounts including termination of use of the facility.

E. Filing a complaint regarding fees, rates and charges does not relieve a customer from making payments in a timely fashion. If it is determined that a customer was over charged, the customer will be entitled to an appropriate refund.

F. Cash transactions shall be rounded to the nearest five (5) cents. Charge transactions for monthly billing shall be rounded to the nearest one (1) cent.

Section 7. PROHIBITED MATERIALS

A. The SFSWMA will not accept the following materials at any facility;

1. Bulk or non-containerized liquids as defined by 20.9.2.10 NMAC

2. Compressed gas cylinders and tanks

3. Explosives and ammunition

4. Regulated hazardous waste

5. Infectious waste

6. Lead acid batteries

7. Medicine and prescription drugs under the Controlled Substances Act

8. PCB's and any material regulated by the Federal Toxic Substances Control Act

9. Radioactive waste

10. Solid waste as determined by the SFSWMA to pose a potential risk or hazard to the environment may be required to be tested to ascertain the nature of its constituents in determining the appropriate handling and disposal method. Testing may also be used to verify the SFSWMA's authority to accept certain solid waste. All testing will be the responsibility of the owner/generator.

11. Special wastes including:

a. treated formerly characteristic hazardous waste

b. packing house and killing plant offal

c. regulated asbestos waste

d. ash

e. infectious waste

f. industrial solid waste

g. spill of a chemical substance or commercial product which requires special handling, dry chemicals, which, when wetted, become characteristically hazardous, wastes which meet RCRA Hazardous Waste Identification Rule levels or land disposal restriction cap levels under RCRA Subtitle C.

B. Other materials that are accepted at each facility are defined in Exhibit B, Accepted Materials Table, which is hereby adopted by reference and made effective upon adoption of this ordinance.

Section 8. HOURS OF OPERATION. The Executive Director shall establish hours of operation for each facility and said hours shall be ratified and approved by the JPB. The hours of operation are hereby adopted by reference and incorporated hereto as Exhibit C and made effective upon adoption of this ordinance.

Section 9. INCLEMENT WEATHER OPERATIONS. The Director shall have the authority to order the temporary closure of any SFSWMA facility when weather conditions cause the use of the respective facility to be unsafe to customers or SFSWMA personnel.

Section 10. EFFECTIVE DATE. This ordinance shall be in full force and effect upon adoption and thirty (30) days after its publication, but not before October 1, 2010 and as provided by law.

PASSED, ADOPTED, SIGNED AND APPROVED THIS 15th DAY OF JULY, 2010.

SANTA FE SOLID WASTE MANAGEMENT AGENCY

By: _____

Rosemary Romero, Chairperson

APPROVED AS TO FORM:

_____

for Mark Baker

Agency Attorney

ATTEST:

_____

Yolanda Y. Vigil

City Clerk

EXHIBIT A-1

SCHEDULE OF FEES

(Effective October 1, 2010 through June 30, 2011)

Landfill Service

Commercial Vehicles

Vehicles 12,500-18,000 lbs GVW $45.00/Ton

Vehicles greater than 18,000 lbs GVW $35.00/Ton

Immediate Burial $75.00/Ton

Petroleum Contaminated Soil (>1,000 ppm TPH) $55.00/Ton

Uncovered Load Surcharge $25.00/Load

Minimum Load Charge $5.00/Load

Use of Scale for Weighing Only $15.00/Weigh

Transfer Service

Vehicles less than 4,000 lbs GVW $5.00/Load

Vehicles 4,000-6,000 lbs GVW $10.00/Load

Vehicles greater than 6,000 lbs GVW $45.00/Ton

Vehicles with Trailers $45.00/Ton

Uncovered Load Surcharge $15.00/Load

Minimum Load Charge $5.00/Load

Use of Scale for Weighing Only $15.00/Weigh

Recycling Service

Conventional Recycling Excluding Glass (Inside Santa Fe County) ..... No Charge

(Vehicles in excess 10,000 lbs GVW)

Conventional Recycling Excluding Glass (Outside Santa Fe County) $15.00/Ton

(Vehicles in excess of 10,000 lbs GVW)

Glass (Vehicles in excess of 10,000 lbs GVW) $15.00/Ton

Drop-Off Recycling (Vehicles less than 10,000 GVW) ..... No Charge

Green Waste $20.00/Ton

Contaminated Green Waste $55.00/Ton

Household Hazardous Waste (Santa Fe Residents Only) $45.00/Ton*

Electronic Scrap $45.00/Ton*

Scrap Tires $160.00/Ton

Passenger Tires $2.00/Tire

Commercial Truck Tires $6.00/Tire

Scrap Metal $15.00/Ton*

Freon Bearing Appliance (contains CFC's) $10.00/Unit

Non-Freon Bearing Appliance (White Goods) $5.00/Unit

Mercury-Containing Lamp ..... No Charge

Unsecured Load Surcharge $15.00/Load

Minimum Load Charge $5.00/Load

**No Minimum Load Charge*

Material Sales

Composted Mulch ..... $7.50/$yd^3$

Screened Compost ..... $10.00/$yd^3$

Mulch ..... $3.00/$yd^3$

Oversized Mulch ..... $0.50/$yd^3$

Compost and Mulch Available to the Public (less than 1 yd^3) ..... No Charge

Glass Aggregate $5.00/Ton

Glass Aggregate Available to the Public (less than 1 yd^3) ..... No Charge

Tire Bale $5.00/Unit

Processed Conventional Recycling ..... Highest Bid Price

Processed Electronic Scrap..... Highest Bid Price

Recovered Scrap Metal..... Highest Bid Price

The rest of this page is intentionally left blank.

EXHIBIT A-2

SCHEDULE OF FEES

(Effective July 1, 2011 through June 30, 2012)

Landfill Service

Commercial Vehicles

Vehicles 12,500-18,000 lbs GVW $47.50/Ton

Vehicles greater than 18,000 lbs GVW $37.50/Ton

Immediate Burial $77.50/Ton

Petroleum Contaminated Soil (>1,000 ppm TPH) $57.50/Ton

Uncovered Load Surcharge $25.00/Load

Minimum Load Charge $5.00/Load

Use of Scale for Weighing Only $15.00/Weigh

Transfer Service

Vehicles less than 4,000 lbs GVW $5.00/Load

Vehicles 4,000-6,000 lbs GVW $10.00/Load

Vehicles greater than 6,000 lbs GVW $47.50/Ton

Vehicles with Trailers $47.50/Ton

Uncovered Load Surcharge $15.00/Load

Minimum Load Charge $5.00/Load

Use of Scale for Weighing Only $15.00/Weigh

Recycling Service

Conventional Recycling Excluding Glass (Inside Santa Fe County) ..... No Charge

(Vehicles in excess 10,000 lbs GVW)

Conventional Recycling Excluding Glass (Outside Santa Fe County) $20.00/Ton

(Vehicles in excess of 10,000 lbs GVW)

Glass (Vehicles in excess of 10,000 lbs GVW) $15.00/Ton

Drop-Off Recycling (Vehicles less than 10,000 GVW) ..... No Charge

Green Waste $20.00/Ton

Contaminated Green Waste $57.50/Ton

Household Hazardous Waste (Santa Fe Residents Only) $47.50/Ton*

Electronic Scrap $47.50/Ton*

Scrap Tires $160.00/Ton

Passenger Tires $2.00/Tire

Commercial Truck Tires $6.00/Tire

Scrap Metal $15.00/Ton*

Freon Bearing Appliance (contains CFC's) $10.00/Unit

Non-Freon Bearing Appliance (White Goods) $5.00/Unit

Mercury-Containing Lamp ..... No Charge

Unsecured Load Surcharge $15.00/Load

Minimum Load Charge $5.00/Load

**No Minimum Load Charge*

Material Sales

Composted Mulch ..... $7.50/$yd^3$

Screened Compost ..... $10.00/$yd^3$

Mulch ..... $3.00/$yd^3$

Oversized Mulch ..... $0.50/$yd^3$

Compost and Mulch Available to the Public (less than 1 yd^3) ..... No Charge

Glass Aggregate $5.00/Ton

Glass Aggregate Available to the Public (less than 1 yd^3) ..... No Charge

Tire Bale $5.00/Unit

Processed Conventional Recycling ..... Highest Bid Price

Processed Electronic Scrap..... Highest Bid Price

Recovered Scrap Metal..... Highest Bid Price

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EXHIBIT A-3

SCHEDULE OF FEES

(Effective July 1, 2012)

Landfill Service

Commercial Vehicles

Vehicles 12,500-18,000 lbs GVW $50.00/Ton

Vehicles greater than 18,000 lbs GVW $40.00/Ton

Immediate Burial $80.00/Ton

Petroleum Contaminated Soil (>1,000 ppm TPH) $60.00/Ton

Uncovered Load Surcharge $25.00/Load

Minimum Load Charge $5.00/Load

Use of Scale for Weighing Only $15.00/Weigh

Transfer Service

Vehicles less than 4,000 lbs GVW $6.00/Load

Vehicles 4,000-6,000 lbs GVW $12.00/Load

Vehicles greater than 6,000 lbs GVW $50.00/Ton

Vehicles with Trailers $50.00/Ton

Uncovered Load Surcharge $15.00/Load

Minimum Load Charge $5.00/Load

Use of Scale for Weighing Only $15.00/Weigh

Recycling Service

Conventional Recycling Excluding Glass (Inside Santa Fe County) ..... No Charge

(Vehicles in excess 10,000 lbs GVW)

Conventional Recycling Excluding Glass (Outside Santa Fe County) $20.00/Ton

(Vehicles in excess of 10,000 lbs GVW)

Glass (Vehicles in excess of 10,000 lbs GVW) $15.00/Ton

Drop-Off Recycling (Vehicles less than 10,000 GVW) ..... No Charge

Green Waste $20.00/Ton

Contaminated Green Waste $60.00/Ton

Household Hazardous Waste (Santa Fe Residents Only) $50.00/Ton*

Electronic Scrap $50.00/Ton*

Scrap Tires $160.00/Ton

Passenger Tires $2.00/Tire

Commercial Truck Tires $6.00/Tire

Scrap Metal $15.00/Ton*

Freon Bearing Appliance (contains CFC's) $10.00/Unit

Non-Freon Bearing Appliance (White Goods) $5.00/Unit

Mercury-Containing Lamp ..... No Charge

Unsecured Load Surcharge $15.00/Load

Minimum Load Charge $5.00/Load

**No Minimum Load Charge*

Material Sales

Composted Mulch ..... $7.50/yd^3

Screened Compost ..... $10.00/yd^3

Mulch ..... $3.00/yd^3

Oversized Mulch ..... $0.50/yd^3

Compost and Mulch Available to the Public (less than 1 yd^3) ..... No Charge

Glass Aggregate $5.00/Ton

Glass Aggregate Available to the Public (less than 1 yd^3) ..... No Charge

Tire Bale $5.00/Unit

Processed Conventional Recycling ..... Highest Bid Price

Processed Electronic Scrap..... Highest Bid Price

Recovered Scrap Metal..... Highest Bid Price

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EXHIBIT B

ACCEPTED MATERIAL TABLE

Material Type	Caja del Rio Landfill	Buckman Road Recycling & Transfer Station
Vehicles greater than 12,500 lbs GVW	Yes	No
Vehicles with Self-Dumping Trailers	Yes	No
Dead Animals	Yes	No
Large/Bulky Items Exceeding Limits for Transfer Service	Yes	No
Petroleum Contaminated Soils	Yes	No
Sludge	Yes	No
Vehicles less than 12,500 lbs GVW	No	Yes
Vehicles with Trailers Requiring Manual Unloading	No	Yes
Conventional Recycling	No	Yes
Green Waste	No	Yes
Manure	No	Yes
Scrap Metal	No	Yes
Scrap Tires	No	Yes
Electronic Scrap	No	Yes
Mercury-Containing Lamp	No	Yes
Freon Bearing Appliance	No	Yes
Non-Freon Bearing Appliance	No	Yes
Household Hazardous Waste	No	Yes*

*Accepted when permanent HHW facility opens

EXHIBIT C

HOURS OF OPERATION

Caja del Rio Landfill

Monday - Saturday 7:00 am – 5:00 pm*

Closed Sundays and Landfill Posted Holidays

**Commercial Account Holders Only Between 4:00 pm and 5:00 pm*

Landfill Posted Holidays

New Year's Day

Thanksgiving Day

Christmas Day

Buckman Road Recycling and Transfer Station (BuRRT)

Sunday – Saturday 8:00 am – 4:45 pm*

Closed BuRRT Posted Holidays

**Loads must be unloaded and out by 5:00 pm*

BuRRT Posted Holidays

New Year's Day

Easter Sunday

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

APPENDIX K

Operational Profiles of the County, City and Agency

1 / Santa Fe County Solid Waste Division

BASIC SERVICES

- Santa Fe County provides seven (7) solid waste convenience centers for the use of residents and businesses within the County's political boundaries.
- Access to centers is restricted to *Solid Waste Permit* holders.
- Permits are available to residents of the unincorporated areas of the County and include per-trip punch passes and individual bag tags.
- Commercial haulers may use the centers with a charge account and are limited by volume.

7 CONVENIENCE CENTERS FOR WASTE AND RECYCLABLES

- Stanley
- San Marcos
- La Cienega
- Eldorado
- Tesuque
- Jacona
- Nambe

COMMERCIAL SERVICES

37 small accounts

OTHER SERVICES

- Maintenance for Closed Landfill – Agua Fria
- Adopt – a – Road Litter Control Program

RESOURCES

Employees **24**

Administration	3
Conv. Center Operations	17
Transportation	4

Vehicles ..... **14 on – road**
13 off – road

Hauling	5 Roll – Off Trucks
	(48 Roll – Off Containers)
	3 Semi – Tractors
	(3 Walking Floor Trailers)
	5 Compactor Units
Admin	5 Passenger Vehicles
Other	2 Wood Grinders
	1 Service Truck
	3 Backhoes
	2 Front – end Loaders
	1 Water Truck

FINANCES

FY 2009 Base Budget ..... **$ 1,943,511**

Operations	$ 1,859,511[1]
Closed Landfill	$ 80,000
Adopt – a – Road	$ 4,000

FY 2009 Revenue **$1,943,511**

Permit Sales	$ 258,171
Environmental GRT	$ 828,000
General Funds	$ 857,340

[1] Includes tipping fees at Caja del Rio Landfill

2 / City of Santa Fe
Solid Waste Division

BASIC SERVICES

- The City of Santa Fe provides solid waste collection services to residents and businesses within the City's physical boundaries.
- The City uses an exclusive franchise which requires that all solid waste be collected by City crews and allows private sector haulers to only handle construction and demolition (C & D) debris and recyclables.
- About 23,500 residences are provided automated trash collection service using a 96 gallon cart plus pickup of recyclables for a fixed monthly fee. There is a charge for extra garbage carts.
- The City offers pickup of oversized items or large quantities of waste on an on–call basis. Costs vary based on volume.
- Refuse collection for businesses is charged according to the number and size of containers along with service frequency. Businesses can sign up for recycling collection billed in the same manner as waste collection. About 220 businesses and 24 schools receive recycling service.

OTHER SERVICES

- Closed Landfill Maintenance
  - Paseo de Vista
  - Frank Ortiz
- Fleet Management
- Customer Service

RESOURCES

Employees		**62**
Administration		9
Equipment Maintenance	6	
Residential Refuse		15
Commercial Refuse	19	
Recycling		13

Vehicles		**58**
Commercial	9	Front – Load
	4	Rear – Load
	1	Recycling
	7	Roll – Off
Residential	11	Automated Side – Load
	2	Small Side – Load
	2	Rear – Load
	5	Recycling
	1	Large Item Grapple Truck
Other	10	Pickups
	3	Service Trucks
	2	Welding Trucks
	1	Front – End Loader

FINANCES

FY 2009 Base Budget	**$ 10,123,005**
Administration	$ 4,615,981[1]
Assessments	$ 322,411
Equip. Mtce./Safety	$ 539,920
Residential	$ 2,645,292
Front – Load	$ 1,099,071
Roll – Off	$ 442,612
Rear – Load	$ 457,718

Revenue	**$ 11,150,177**
Environmental GRT	$ 2,140,488
Commercial	$ 4,800,000

2 / City of Santa Fe Solid Waste Division continued

Residential	$ 4,083,400
Com. Recycling	$ 55,000
Interest	$ 71,289

[1] Includes tipping fees at Caja del Rio Landfill

3 / Santa Fe Solid Waste Management Agency

BASIC SERVICES

- SFSWMA operates Caja del Rio Landfill and the Buckman Road Recycling and Transfer Station (BuRRT).
- SFSWMA is a self-sustaining enterprise fund which relies solely on user fees and revenues from the sake of recyclables to fund its operations.
- The landfill accepts waste from within Santa Fe County. Fees are assessed on a per ton basis.
- BuRRT accepts waste from the general public and small businesses. Fees are assessed mainly on a per ton basis; smaller loads are charged a flat fee.
- The Material Recovery Facility (MRF) at BuRRT processes / markets recyclables from the City and County of Santa Fe, the public, businesses, private haulers, and other communities.
- SFSWMA is currently developing a permanent Household Hazardous Waste drop – off facility at BuRRT.

CAJA DEL RIO LANDFILL

Solid Waste Disposal

- Cell Development
- Landfill Gas Collection
- Storm Water Management
- Basalt Removal
- Cell Closure
- Post – Closure Care

Fleet Maintenance

Administration

BUCKMAN ROAD RECYCLING AND TRANSFER STATION

Transfer of Refuse to Caja del Rio Landfill

Material Recovery Facility

- Mixed paper
- Cardboard
- Aluminum cans
- #1 and #2 plastic bottles
- Steel cans
- Other paper grades (SOP)

Other Recycling Processing

- Tires
- Green waste
- Scrap metal
- Electronic waste
- Fluorescent light bulbs
- Carpet padding
- Soft – cover books
- Telephone books
- Glass bottles and jars

RESOURCES

Employees		**41**
Administration		13
Equip. Maintenance	4	
Disposal		6
Facility Maintenance	2	
BuRRT Transfer		6
BuRRT Recycling		10

3 / Santa Fe Solid Waste Management Agency continued

Vehicles ..... **24 Off – Road**
29 On - Road

Off - Road	3	Water trucks
	2	Waste compactors
	2	Bulldozers
	1	Dump truck
	2	Excavators
	1	Tractor
	1	Forklift
	4	Front – end loaders
	2	Road graders
	1	Wood grinder
	2	Scrapers
	1	Skid loader
	1	Construction sweeper
	1	Water wagon
On - Road	19	Passenger vehicles
	1	Service truck
	2	Roll – off trucks
	3	Semi – tractors
	4	Walking floor trailers

FINANCES

FY 2009 Base Budget ..... **$ 6,662,635**

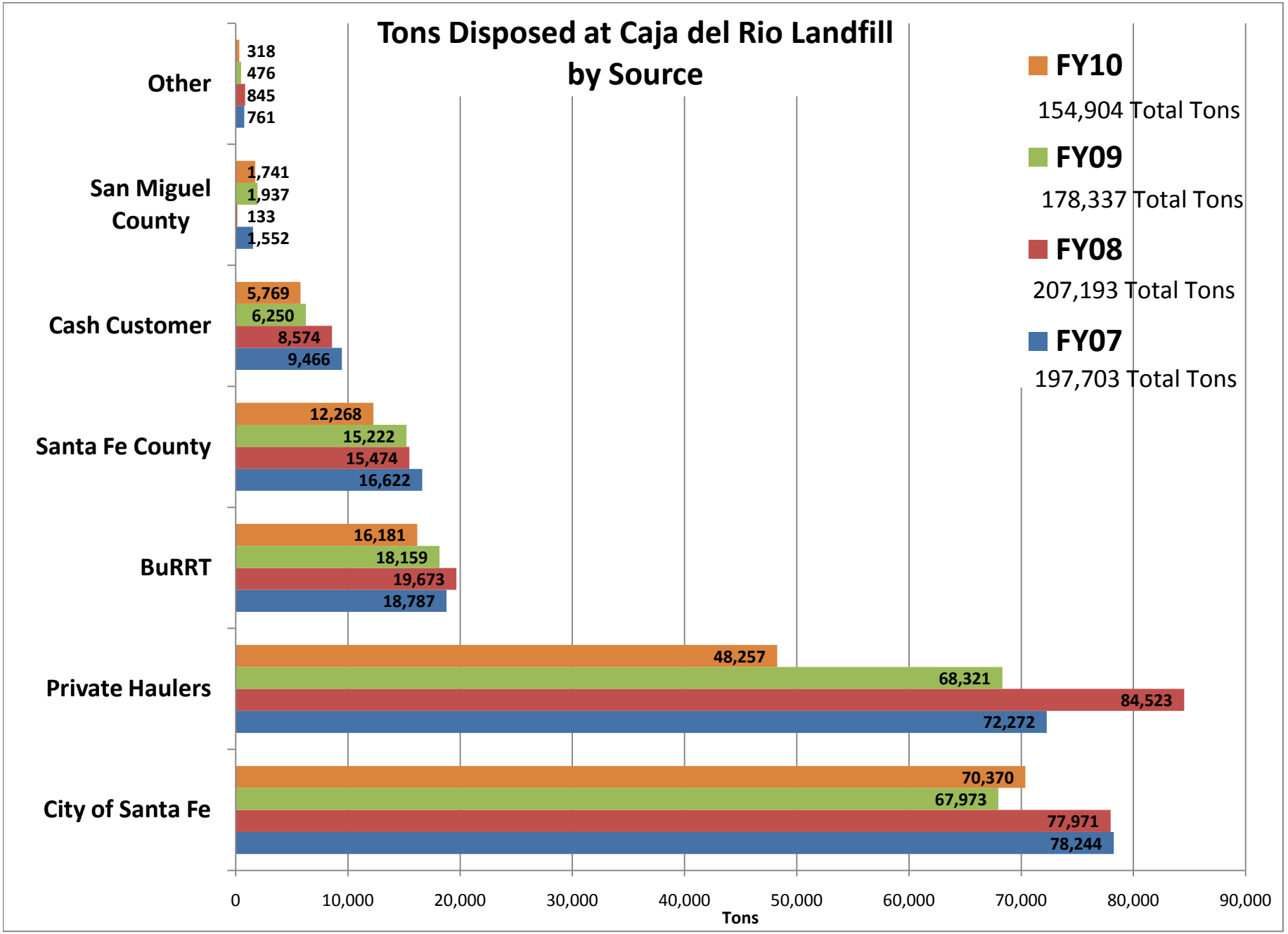
Caja del Rio	$ 3,106,541
Debt Service	$ 659,375
Reserve Accruals	$ 1,205,000
BuRRT	$ 1,691,719

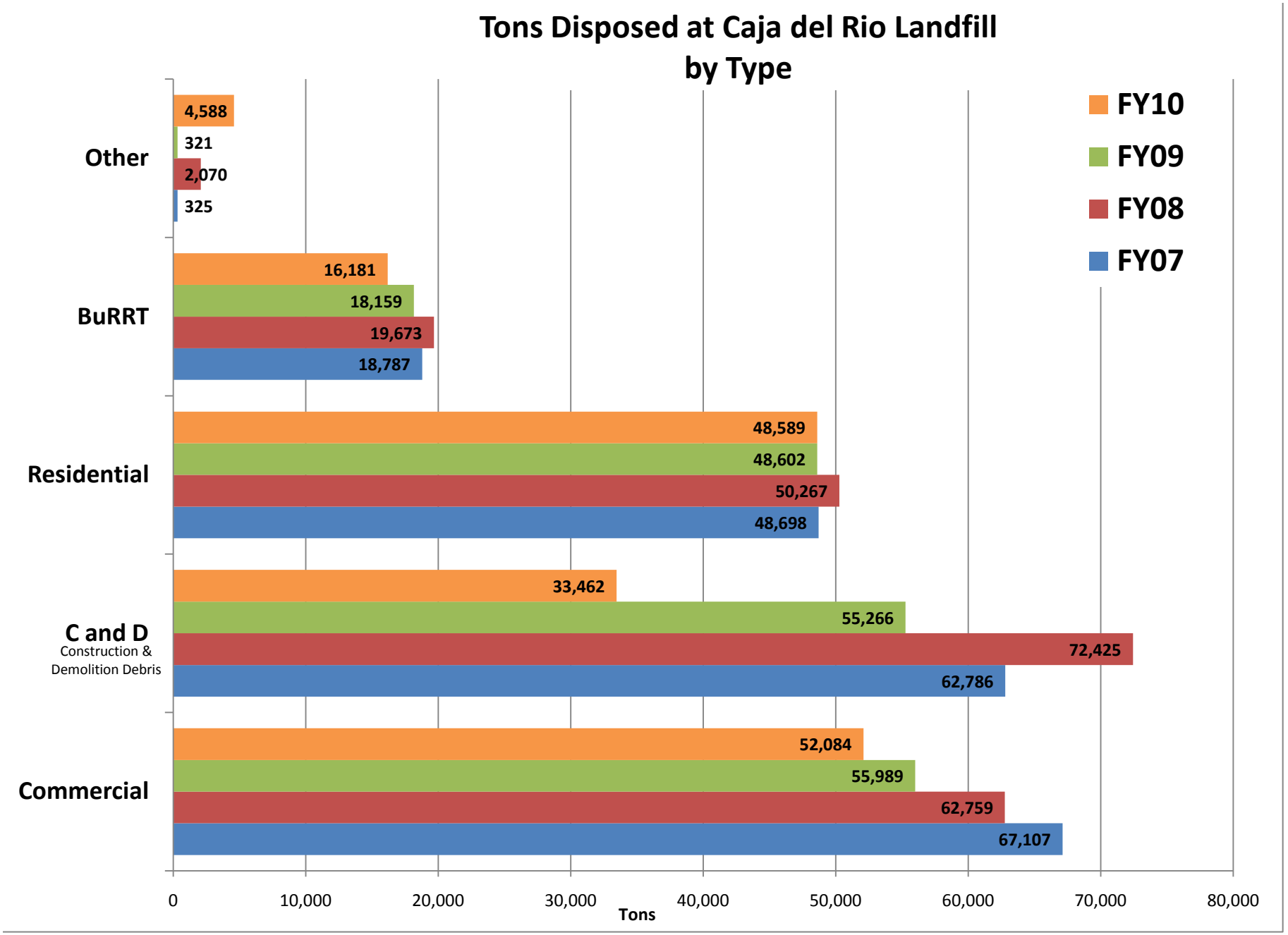
FY 2009 Revenue **$6,940,900**

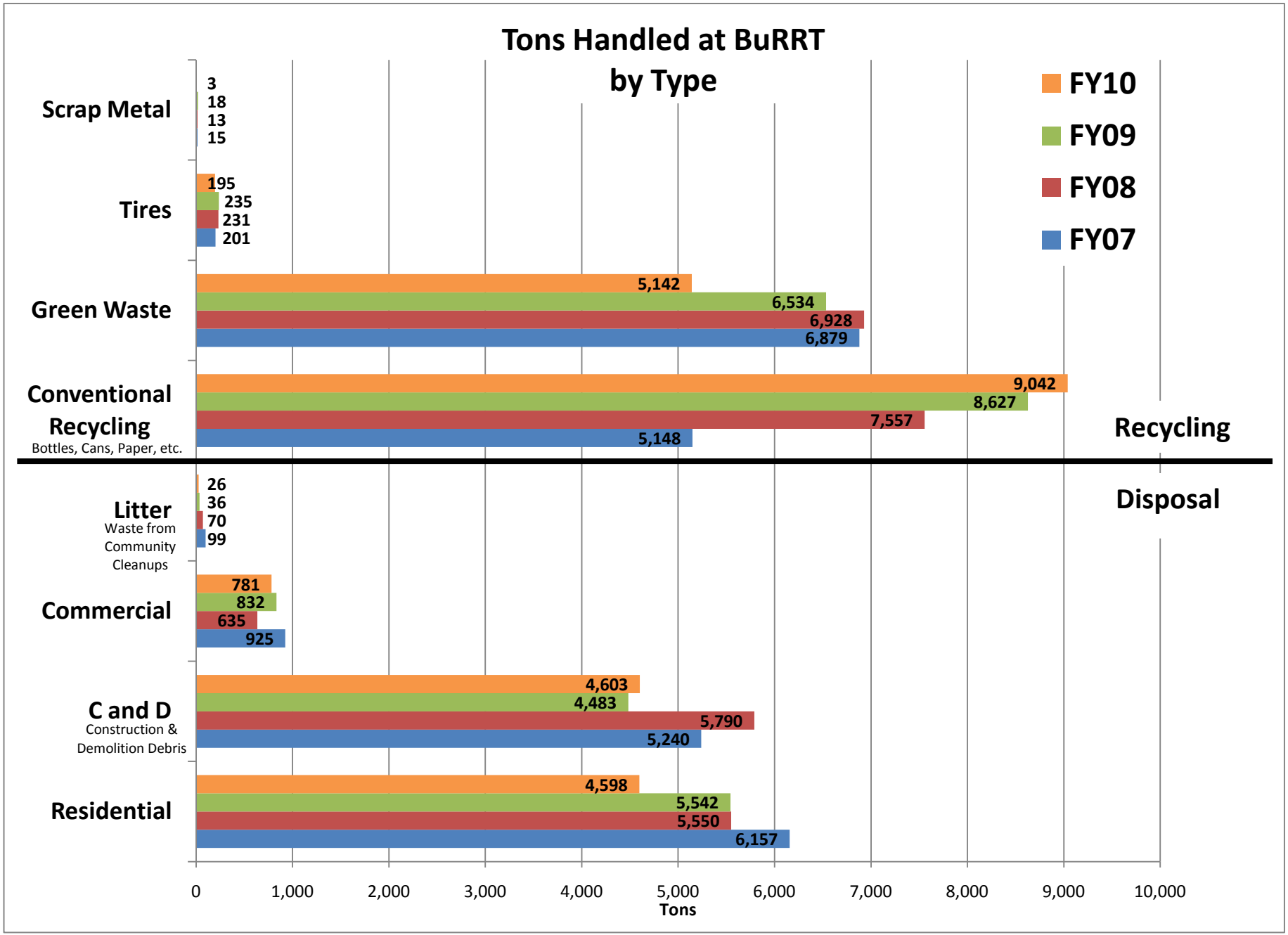
Compost Sales	$ 50,000
Recyclable Sales	$ 630,000
BuRRT Fees	$ 728,900
Landfill Fees	$ 5,400,000
Dirt/Rock Sales	$ 132,000

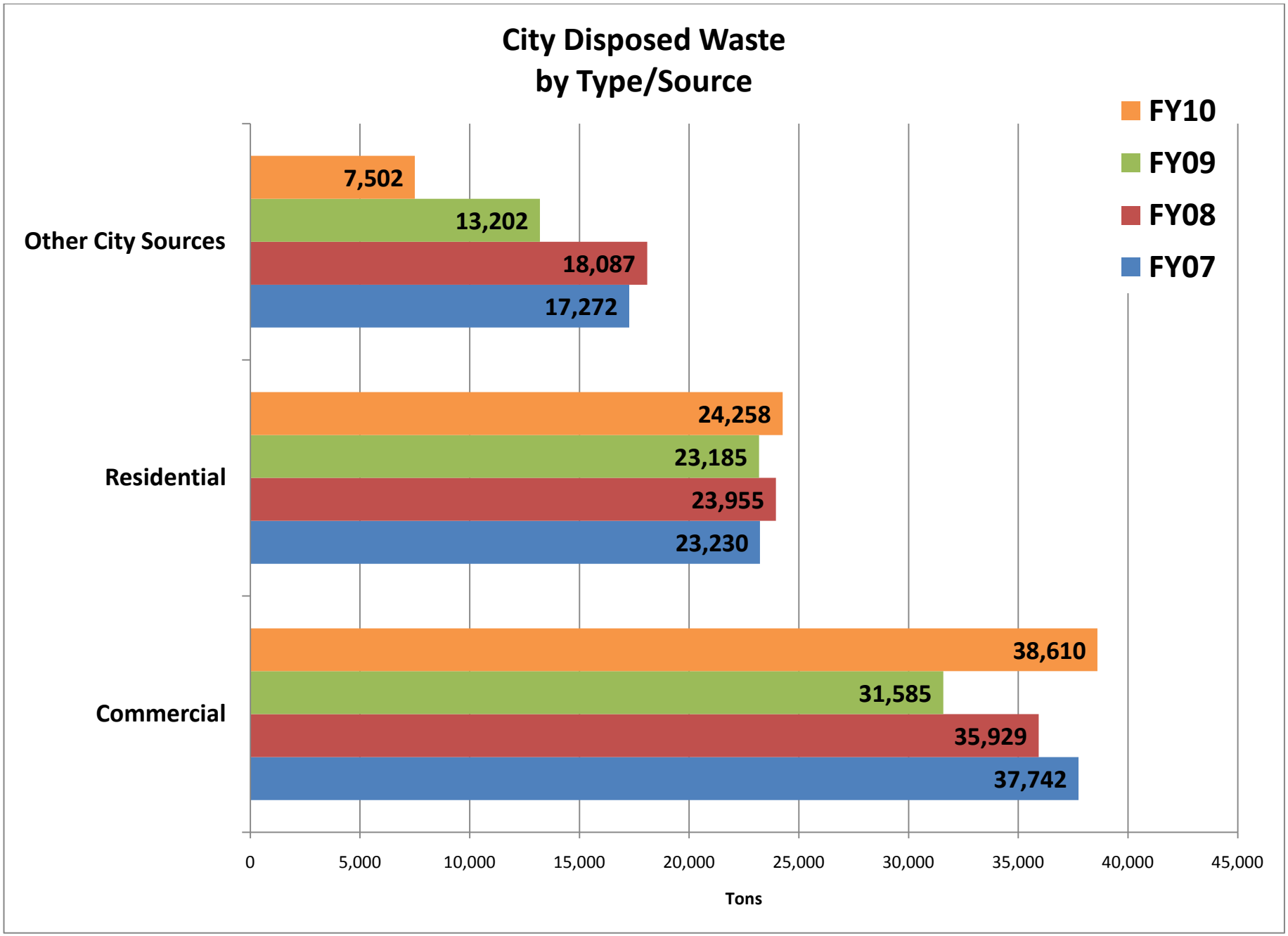
APPENDIX L

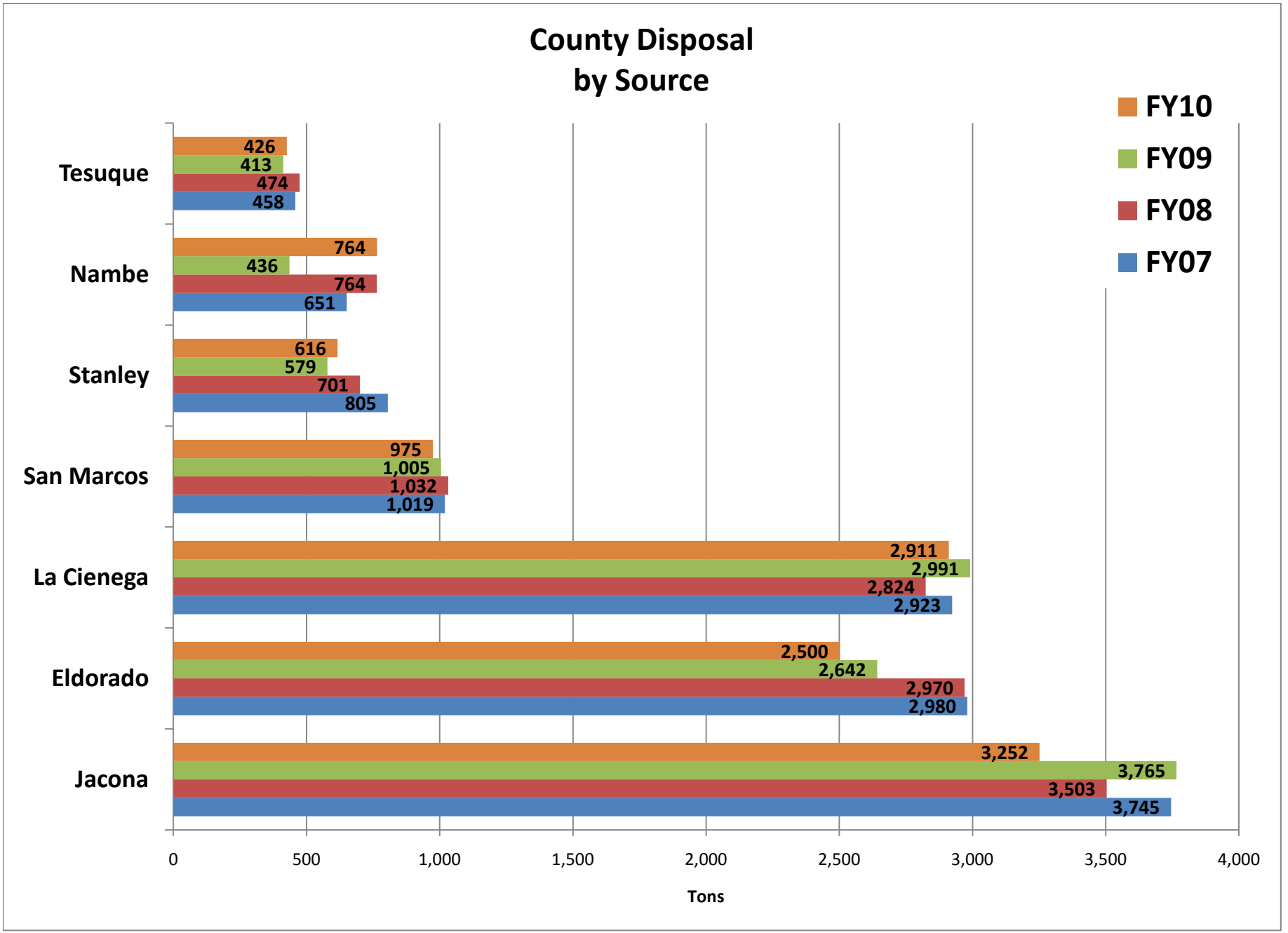
Fiscal Year 2010 Disposal and Recycling Data

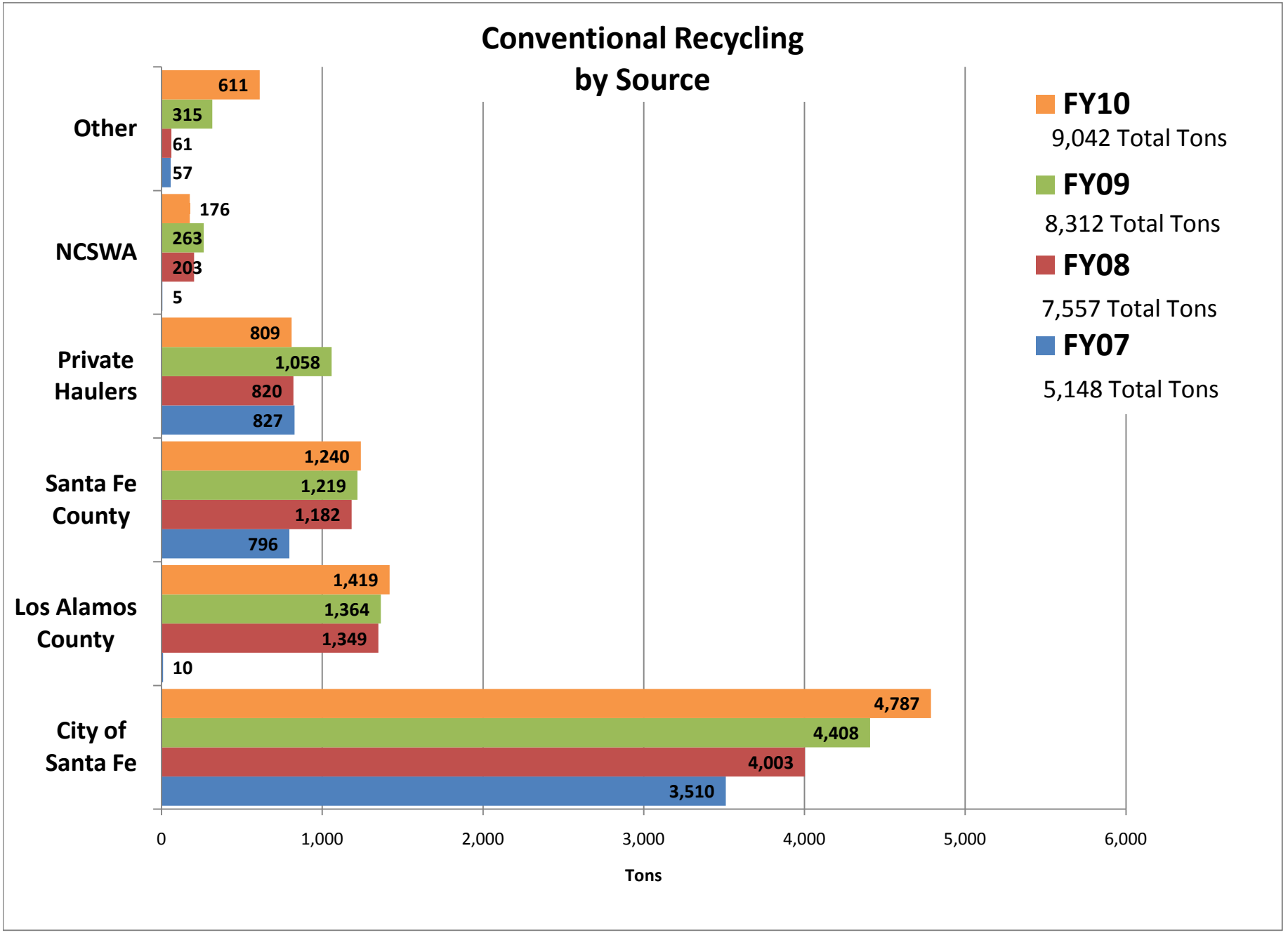

Tons Disposed at Caja del Rio Landfill by Source
Other
318
476
845
761
San Miguel County
1,741
1,937
133
1,552
Cash Customer
5,769
6,250
8,574
9,466
Santa Fe County
12,268
15,222
15,474
16,622
BuRRT
16,181
18,159
19,673
18,787
Private Haulers
48,257
68,321
84,523
72,272
City of Santa Fe
70,370
67,973
77,971
78,244
FY10
154,904 Total Tons
FY09
178,337 Total Tons
FY08
207,193 Total Tons
FY07
197,703 Total Tons
0
10,000
20,000
30,000
40,000
50,000
60,000
70,000
80,000
90,000
Tons

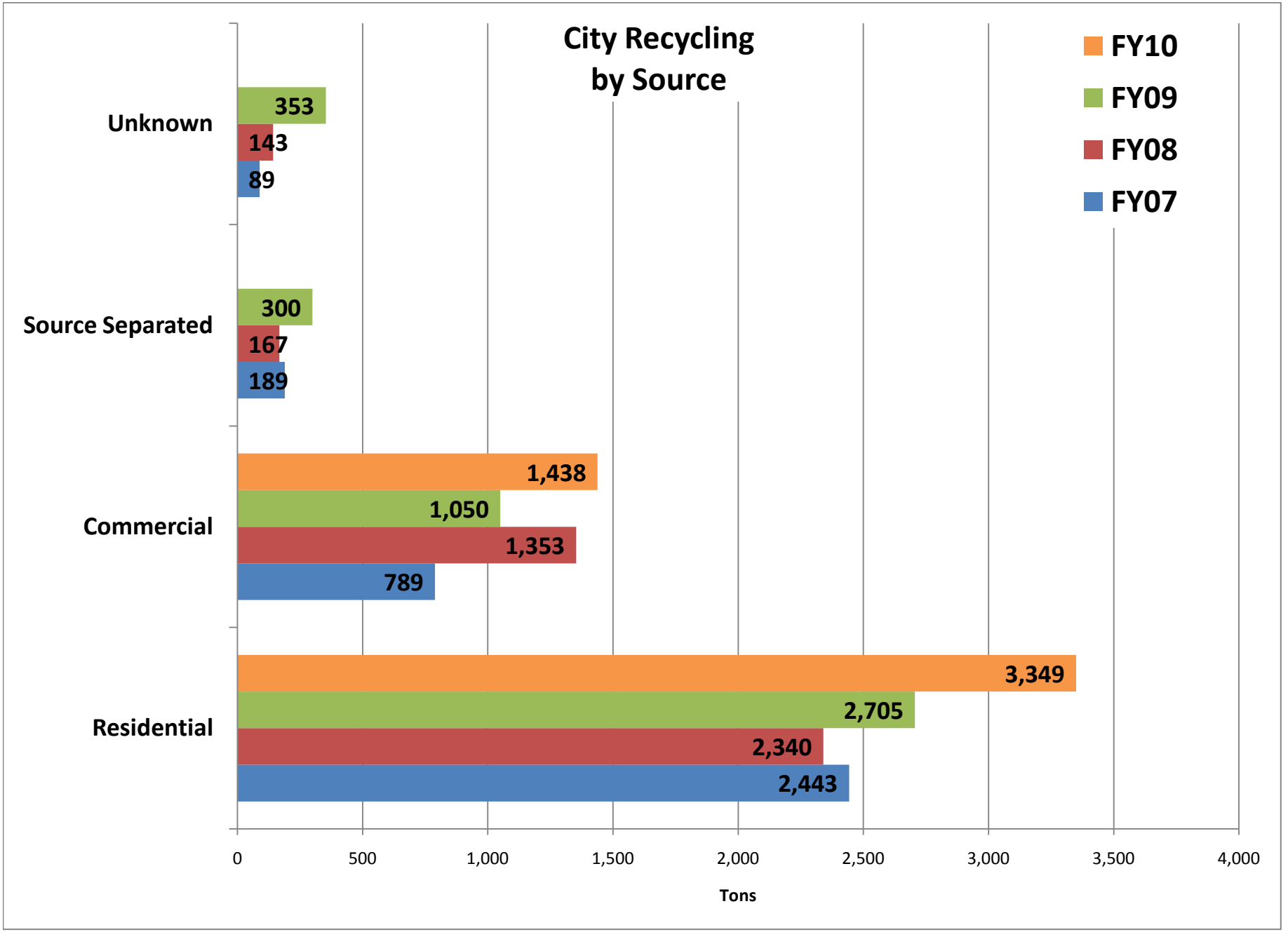

Tons Disposed at Caja del Rio Landfill by Type
FY10
FY09
FY08
FY07
Other
4,588
321
2,070
325
BuRRT
16,181
18,159
19,673
18,787
Residential
48,589
48,602
50,267
48,698
C and D
Construction & Demolition Debris
33,462
55,266
72,425
62,786
Commercial
52,084
55,989
62,759
67,107
0
10,000
20,000
30,000
40,000
50,000
60,000
70,000
80,000
Tons


Tons Handled at BuRRT by Type
FY10
FY09
FY08
FY07
Scrap Metal
3
18
13
15
Tires
195
235
231
201
Green Waste
5,142
6,534
6,928
6,879
Conventional Recycling
Bottles, Cans, Paper, etc.
9,042
8,627
7,557
5,148
Recycling
Disposal
Litter
Waste from Community Cleanups
26
36
70
99
Commercial
781
832
635
925
C and D
Construction & Demolition Debris
4,603
4,483
5,790
5,240
Residential
4,598
5,542
5,550
6,157
0
1,000
2,000
3,000
4,000
5,000
6,000
7,000
8,000
9,000
10,000
Tons


City Disposed Waste
by Type/Source
FY10
FY09
FY08
FY07
Other City Sources
7,502
13,202
18,087
17,272
Residential
24,258
23,185
23,955
23,230
Commercial
38,610
31,585
35,929
37,742
0
5,000
10,000
15,000
20,000
25,000
30,000
35,000
40,000
45,000
Tons


County Disposal
by Source
FY10
FY09
FY08
FY07
Tesuque
426
413
474
458
Nambe
764
436
764
651
Stanley
616
579
701
805
San Marcos
975
1,005
1,032
1,019
La Cienega
2,911
2,991
2,824
2,923
Eldorado
2,500
2,642
2,970
2,980
Jacona
3,252
3,765
3,503
3,745
0
500
1,000
1,500
2,000
2,500
3,000
3,500
4,000
Tons


Conventional Recycling by Source
Other
611
315
61
57
NCSWA
176
263
203
5
Private Haulers
809
1,058
820
827
Santa Fe County
1,240
1,219
1,182
796
Los Alamos County
1,419
1,364
1,349
10
City of Santa Fe
4,787
4,408
4,003
3,510
0
1,000
2,000
3,000
4,000
5,000
6,000
Tons
FY10
9,042 Total Tons
FY09
8,312 Total Tons
FY08
7,557 Total Tons
FY07
5,148 Total Tons


City Recycling by Source
FY10
FY09
FY08
FY07
Unknown
353
143
89
Source Separated
300
167
189
Commercial
1,438
1,050
1,353
789
Residential
3,349
2,705
2,340
2,443
0
500
1,000
1,500
2,000
2,500
3,000
3,500
4,000
Tons

APPENDIX M

City's "Save a Ton" Recycling Campaign

SANTA FE NEW MEXICAN.com

October 4, 2010

The New Mexican & City of Santa Fe "Save A Ton" Initiative

Business Plan

Contents

Overview, Benefits and Cost

Overview

The Santa Fe New Mexican and the City of Santa Fe see an opportunity to capitalize on the momentum toward recycling in Santa Fe to strengthen the local news paper, increase recycling, build partnership and promote sustainable practices. The New Mexican has the largest circulation of any newspaper in the region and the City handles a large majority of recycling collection for Santa Fe. The proposed initiative achieves goals for both organizations and serves the citizens of Santa Fe.

The City of Santa Fe and The Santa Fe New Mexican propose to partner on a one-year initiative to raise awareness and participation in recycling in Santa Fe. The goal is to double the amount of material recycled in Santa Fe. The initiative will consist of various media events and channels with the key element being a 'GreenSheet' in one issue of The Santa Fe New Mexican each month. More details of the initiative are included below. Generally, the City of Santa Fe would provide the content for half of the page and advertising would be sold for the other half of the page.

Benefits

Benefits to The New Mexican include having people know that when they read The New Mexican, they are not contributing to the problem of waste or cutting down trees. People need to know that The New Mexican is printed on 100% recycled paper. People should know that by reading The New Mexican, they are supporting a green business that is making a difference in the community. This initiative can enhance The New Mexican's brand in the realm of environmental stewardship.

Benefits for the City of Santa Fe include attaining sustainability policies and goals; controlling disposal costs; long program viability; educating customers on how to recycle and providing leadership in environmental excellence.

Benefits to the residents of Santa Fe include having information about recycling readily available on a frequent basis; creating jobs through recycling; reducing land used for landfilling; and becoming a sustainable community.

Value

Each ½ page ad would cost $2,000. If the GreenSheet will run once each month so the value is $24,000 annually to the City and the residents of Santa Fe.

Costs

Costs to the City of Santa Fe includes:

- Additional collection staff and vehicles may be required to collect more material.
- 15% of Solid Waste Director's time to
  - manage the initiative
  - develop content for monthly ½ page
  - coordinate and participate in other media events.
- 25% of the Community Relations Specialist's time
  - implement the program to measure, report and recognize businesses for their recycling
  - assist with coordinating special events
- Additional expertise and time may be required to create the content

Cost to The New Mexican includes:

- Setup time creative thrust for campaign and layout = $2500
- Training Reps on Idea, developing commissions, sales materials, present program to advertisers including door to door = $5000
- Layout the GreenSheet weekly (replaces the Review). Approximately $200 per page or $10,400 per year.
- Administrative time for initiative and GreenSheet = $20,000
- Total cost approximately $38,000

Next Steps

No.	Action	Respon-sible	Due Date/ Status	Notes
1	Refine text of the first issue page- remember audience. Restate 'Help the City' perhaps to Let's Work Together to Save a Ton or 'Do Your Part to Save a Ton' or 'Recycle and Save a Ton'	David	10/12	
2	Provide Laura with contacts for City State County SFSWMA ads for first GreenSheet	Regina	1012	Send more
3	Write Press release for the initiative, contact needs to be prepared to answer all kinds of questions, share press release with all media and partners.	Regina	10/12	
4	Review monthly themes and come up with pricing.	Laura	10/12	
5	Provide Layout for The Review because banner needs to be different, etc.	David	10/12	
6	Make a good recycling page for people to link into on the City website	Regina	11/1	
7	Talk to Hutton about being co-sponsors; developing a radio/print offer; creating a public event- maybe a flea market or garage sale- event has to be in the City.	David/ Regina		David mentioned, Regina meeting with Vera on Oct 7
8	SF Alliance, SFSWMA, Santa Fe County, Chamber of Commerce – update with initiative	Regina		Need to talk to Chamber and Santa Fe County
9	City could write letter to the editor for consideration. Be selective about author so eligible for publication.	Regina		
10	Facebook Save A Ton Santa Fe: Fill in the information and install links; make so that people can get to it even if they don't have facebook account and people can post things.	David		

11	Launch initiative starting November 15 for Recycling Awareness Month.	Team	Nov 15	
12	City utility bill insert- one side showcase New Mexican green processes/ other side has recycling information- panel or tri-fold	Jeff Regina	After holidays - Feb	
13	Media event for kickoff- travel around with a Ton of baled recycling on a flatbed truck, film it going around, go to a school, businesses, etc. When the Ton comes to you- what are you going to do? Pledge to Recycle. Radio remote.	Regina and David	Monday, November 15	
14	Save A Ton – merch shopping bags, reusable water bottles, coffee mugs			
15	Create graphic of the tonnage of recycling, maybe use stacks of recycling bins.	David		

Programs

Regular Green Features in the Santa Fe New Mexican Newspaper

Overview

Have regular green features in The New Mexican to become known as a resource for green practices and increases advertising and circulation.

Program Elements

1. FEATURES
    a. A full-page advertorial every third Thursday in TSFNM
        i. Initiative is called – SAVE A TON
        ii. Page is Called - The GreenSheet
        iii. Post the pdf of the green page and add links to the businesses and other resources.
    b. Launch Initiative with double truck on Monday, November 15, America Recycles Day
        i. Maybe make the logo green and all headlines that day
    c. The Review will become the GreenSheet.
        i. Will have GreenSheet banner and layout.
        ii. First page will contain related, local news article on top and 6 column by 6" ad Save A Ton content at bottom.
    d. Rack card announcing the Save A Ton Initiative.
        i. "Save A Ton, Santa Fe's Recycling Initiative every third Thursday in The New Mexican",
    e. Facebook page for the campaign
        i. SFNM create a video of green practices and put it on the web.
        ii. Place the monthly Save A Ton content and ads on this page with links.
        iii. Other participating businesses can put their videos on the page too.
    f. Green strip on every paper highlighting The New Mexican's green practices (100% recycled content, soy ink) with a changing message and a call to action.

i. At bottom of the obits or weather page. Recycle A Ton, Santa Fe's Recycling Initiative every third Monday in The New Mexican, 100% recycled paper, soy ink. Call 955-2200 to recycle at your home or business.
ii. New tag line: "We put out the paper with no paper trail". "We're greener than you think"

g. Public events: Could partner with Hutton on a public event. Launch the green page November 15, and let momentum build then have event in the spring- Earth Day.

2. CONTENT
   a. City provides ½ page of content
      i. Good headline, photograph, graphs and charts
      ii. Each issue needs to explain the program and goals and point people to more information.
      iii. Publish program results to compel people to track results
      iv. Local content!
      v. Put content in the can to prepare
      vi. Content should be exactly ½ page - need room for 8 ads
      vii. Profile businesses and people that are doing good things.
   b. Review- use the GreenSheet (formerly The Review) to convince people that taking the paper is green, gets message to other half of the people.
      i. Could container basic information of what can be recycled- a cut out.
      ii. Use the bottom half the recycling information leave the top half with the newsroom for trash to treasures.
      iii. Keep the Marketplace the same.
      iv. Bottom half is used to promote circulation and the how the SFNM is a green company and supporting the City in the recycling initiative.
   c. TON theme: 2 Ton sponsor; 10 Ton sponsor; lonely trash can; have 1 ton bales at events. How the West was Ton; House of the Rising Ton; Sorry for the Ton Puns!
   d. Robin may want to do an article on The Santa Fe New Mexican and the campaign and/or an Editorial. Real news, real benefit to the community.

3. ADVERTISING
   a. Classified ad department sells 8 ad spaces per page.
   b. Advertisers could buy the whole year and advertise during any month.
   c. Each month has an industry theme to focus content and advertising.
      i. City/County/State November
      ii. Media December
      iii. schools/higher ed
      iv. hospitals
      v. hotels
      vi. restaurants
      vii. auto (mechanics, glass)
      viii. art
      ix. dept stores/big box/national chains
      x. electronics/appliances
      xi. grocery store/farmer market
      xii. non-profit

4. ROLES
   a. Laura is lead on advertising
   b. David is lead on layout/creative
   c. Regina is the project manager.
   d. City needs to continue to issue press releases and contact news room to get news in the paper.

Business Recycling Initiative

Overview

Create a program to stimulate, educate and recognize businesses for recycling.

Program Elements

Recognize top recycling businesses in the media, on web, decal for window. Create case studies. Sell advertising in the green issue.

1. Develop levels of achievement. "1 or 2 or 10 Ton Sponsor".
2. Businesses get awards at the public events
3. Promotion of business with the program
4. Can reduce waste management cost for business increasing business profitability
    a. Recycling services cost one half as much as trash services.

Cost

5. City Staffing
    a. Outreach staffing and liaising by the City of Santa Fe Community Relations Specialist
    b. Collection staffing by Solid Waste Division
        i. Likely need to increase commercial recycling crew by one person. Solid Waste Division proposes to staff through efficiency.

Residential Recycling Initiative

Overview

Create a program to educate and stimulate residential recycling.

Program Elements

Could ask people to become captains for recycling in their neighborhood and the City would provide them with information and

a. Could have a flag that gets placed in the neighborhood selected as the most recycling neighborhood.
b. Could ask people to be recycling captains for their neighborhood.
c. City may want to count participation rate and measure after 1 year.
d. Could create a sheet of coupons from participating businesses that block captains would get.

Cost

1. City Staffing
    c. Outreach staffing and liaising by the City of Santa Fe Community Relations Specialist
    d. Collection staffing by Solid Waste Division
        i. Will need to increase capacity of recycling collection. Solid Waste Division expects to be able to increase capacity using equipment specifications.

Team Membership

Following people are the core team to implement this plan.

Name	Organization	Title	Email	Phone
Al Waldron	The New Mexican	Director Operations	awaldron@sfnewmexican.com	505.428.7630
Regina Wheeler	City Santa Fe Solid Waste	Solid Waste Director	rawheeler@santafenm.gov	505.955.2209 off 505.629.9415 cel
Randall Marco	City Santa Fe Solid Waste	Public Relations Specialist	rvmarco@santafenm.gov	505.955.2208 off
Ginny Sohn	The New Mexican	Associate Publisher	ginny@sfnewmexican.com	505.983.3303 off
David Del Mauro	The New Mexican	Marketing and Design Manager	ddelmauro@sfnewmexican.com	505.955.3862
Jeff Abbott	The New Mexican	Circulation	jabbott@sfnewmexican.com	505.428.7636
Laura Harding	The New Mexican	Classified Ads		

Partners

The following organizations will have various levels of involvement: informed, consulted or participating.

Organization	Contact name	Notes	Phone	Involvement
Sustainable Santa Fe Commission	Camilla Bustamante	Board that implements the Sustainable Santa Fe Plan adopted by Council. Contains goal to achieve zero waste.		Informed
The Santa Fe Alliance	Kathleen Chambers	Over 400 member businesses		Participating
Hutton Broadcasting		Media partners with The New Mexican		Participating
Green Fire Times		Probably ok to partner		Informed
Reporter		Watch stretching advertising dollars		Informed
Chamber of Commerce	Simon Brackley			Participating
Santa Fe Solid Waste Management Agency	Randall Kippenbrock	Runs the recycling center and landfill, has all the data		Participating
Santa Fe County		County recycling facilities and		Participating
Solid Waste Advisory Committee		Citizens advisory body on solid waste issues in SF		Informed

Process

Team meetings – Weekly starting September 22, 2010
Measuring – See below
Information distribution
Copy approval – Standard SFNM process
Lessons Learned

Goals and Measures

GOAL 1: Increase awareness about recycling in Santa Fe.

MEASURE

One hundred promotional activities in one year.

Action	Responsible	Measure	Priority
City place quarterly ads in TSFNM on solid waste	Regina	8	
Publish 12 columns GreenSheet	Regina and David	12	
Organize a community event to celebrate the results		6	
Radio campaign with media partner (probably Hutton)		12	
Radio call in show about recycling		1	
Presentations and education in schools	Randall	10	
Community Gallery art show to promote recycling	Regina	14	Opened
Presentations to City Council at beginning of initiative and end	Regina	2	
Present Initiative to Sustainable Santa Fe Commission beginning and end	Regina	2	
Create The New Mexican's Facebook web page for initiative and update monthly	David	12	
Publicize on City of Santa Fe website, update monthly and link to The New Mexican's website for initiative	Regina	12	
Two Utility Bill inserts		2	
Santa Fe Alliance Mailing	Regina	1	
Green Drinks presentation on Initiative in August	Regina	1	
Submit to City/County magazine and others as innovation at start and end	Regina	2	
City issue press releases quarterly to announce events and results.	Regina	4	
Total		101	

GOAL 2: Measure an increase in recycling activity in Santa Fe.

MEASURE 2.0

30,000 Tons recycled in Santa Fe (county wide) within one year from start of initiative.

Action	Responsible	Measure	Priority
Measure all recycling that comes to BuRRT, City composting, electronics collections, etc.	Regina	Measurement method	Use method in CSWMP
Agree to conversions of interest and methodology: carbon saved, trees saved, jobs, money saved	Team	Conversions of interest	
Establish baseline measures	Regina	Baselines	
Collect and report recycling data monthly.	Regina	Tons monthly	

GOAL 3: Increase business participation in recycling

Measure 3.0 Number of businesses recycling and tons of recycling collected.

Action	Responsible	Measure	Status
Establish baseline number businesses recycling	Randall	350 as of 10/2010	Done
Establish baseline commercial recycling in tons per year	Regina		