ADA COUNTY

Solid Waste Management Department





Year End Report Fiscal Year 2006

SOLID WASTE MANAGEMENT DEPARTMENT

Year End Report - Fiscal Year 2006

Ada County Solid Waste Management Department 200 West Front Street – Boise, Idaho 83702 Phone 208-577-4725 • Fax 208-577-4729 www.adaweb.net

BOARD OF ADA COUNTY COMMISSIONERS

Rick Yzaguirre, Chairman Judy M. Peavey-Derr, First District Fred Tilman, Third District

SOLID WASTE MANAGEMENT DEPARTMENT

Dave Neal, Director
Rene Phillips, Health Protection Officer
Ted Hutchinson, Deputy Director
Ken Wall, Hazardous Materials Coordinator
Rick Schreiber, Environmental Systems Coordinator
Jim Krosschell, Account Clerk
Kathie Herman, Account Clerk
Carol Hyde, Cashier
Kathy Nelson, Cashier
Kathy Foster, Cashier
Barbara Burkhardt, Cashier
Jolie Rosenfield, Cashier

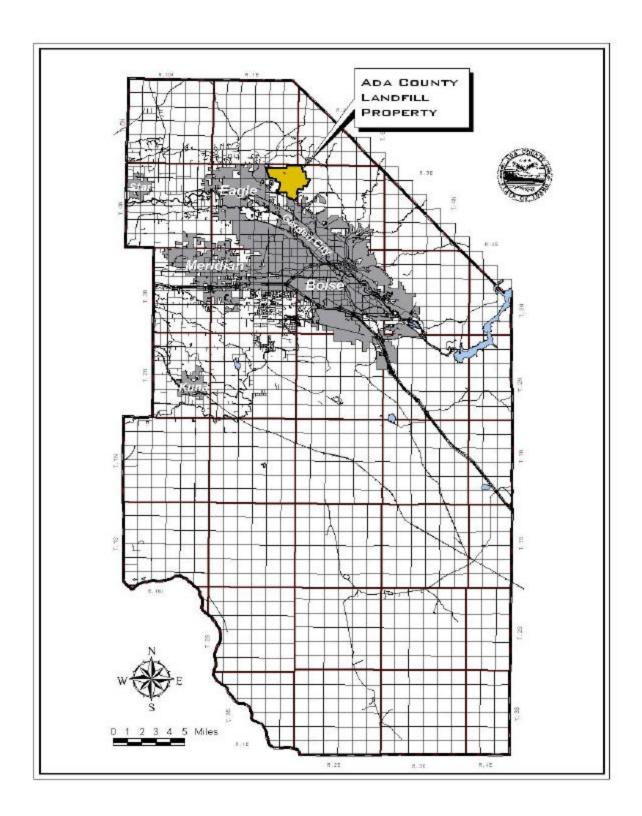
CITY MAYORS

David H. Bieter, City of Boise Nancy C. Merrill, City of Eagle Nathan Mitchell, City of Star O. Dean Obray, City of Kuna Tammy de Weerd, City of Meridian John G. Evans, City of Garden City

Table of Contents

Department Mission	
Executive Summary	1
Diversion Programs	2
Landfill Recycling Programs	2
Wood Recycling	3
Household Hazardous Material ReUse.	
Curbside Recycling	3
Recycling Details	4
Wood Waste Recycling	
Diversion Programs Summary	
Solid Waste Management	8
Additional Responsibilities	8
The Department	8
Staffing and Divisions	
Solid Waste Division	9
The Staff	
Hazardous Waste Division	
Hazardous Material Management	
Mobile Collection Events	.13
City of Boise	.13
City of Meridian	. 13
City of Kuna	
City of Eagle	. 14
Collected Material	. 14
Computer Monitors and Televisions	. 14
Environmental Division	
Public - Private Partnership	. 16
The Contractors	. 16
Landfill Operations	. 16
Waste Screening	
Organics Recycling	. 17
Hazardous Waste Management	. 18
Engineering	. 18
Landfill-Gas to Energy	. 18
Engineering, Oversight, Construction	. 19
The North Ravine Cell	. 19
Owner's Representative	
Engineering	. 19
Construction	. 19
North Ravine Cell: Stage 1	.20
Financial Health	. 21
Construction Expenses and the Budget	
Odds and Ends	

Waste Material	26
Synopsis	27
Appendices	
1. th. t.	₩



 $ADA\ COUNTY: The\ County's\ property\ (purchased\ for\ land fill\ needs)\ is\ highlighted..$

DEPARTMENT MISSION

The Solid Waste Management Department seeks to pro-actively manage County waste disposal facilities, enforce applicable codes, and provide reasonably priced and environmentally acceptable methods for solid and hazardous wastes reduction and disposal for County residents and businesses. Services provided by the department include:

- Maintenance of a sanitary landfill for acceptance of wastes generated by County residents,
- Operation of a permanent year-round facility for disposal of household and small business hazardous wastes,
- Contractual oversight of the franchised trash collection in unincorporated Ada County ensuring compliance with trash pick up, recycling and rates,
- On-site recycling programs for wood, tires, automotive batteries, refrigerators and air conditioners,
- Enforcement of health codes regarding accumulation of solid waste, and,
- Educational resource for local schools and service groups.

Executive Summary

Meeting Our Goals

n February 2006, Ada County began construction of a new landfill cell to replace the Hidden Hollow Landfill that is nearing its designed capacity. Before deciding the course to build a new landfill, the Board of Ada County Commissioners went to the public to obtain their input on the future of Ada County's solid waste management system. High on the list of priorities, as identified during many public meetings on the issue, was increased recycling and waste diversion programs to further the life of the existing landfill and to reduce demand on the future disposal site.

The emphasis of this year's report is on how the Solid Waste Management Department has fared toward the goals of recycling and diversion. "**Reduce** – **Reuse** – **Recycle**," the battle cry of modern municipal solid waste systems, is very much a part of the County's efforts to comply with the wishes of the residents of Ada County.



Ada County is the only county within the State of Idaho where curbside recycling is available to every single-family residence through contractual agreements with the waste collection companies. By taking advantage of this service, Ada County households set **more than 9,900 tons** of recyclables curbside for collection. The "Recycling Details" section in

this report detail the various recycling programs in Ada County.

At the landfill, wood waste recycling diverts large quantities of wood from disposal in the landfill for other uses. Much of the wood is used as fuel in electrical co-generation facilities while some is used as compost feedstock, cattle bedding, and landscape material. 1,374 semi-truck loads – more than 39,000 tons – of wood was shipped away rather than wasted in the landfill.

The Material ReUse Program in the Household Hazardous Materials Collection Facility continues to grow in popularity. This program provides residents access to household products at no charge – products that were slated for disposal at considerable cost.

Successful waste diversion programs require the participation of many players. Ada County wants to acknowledge and to thank those who have made these programs work: the residents of Ada County, the Ada County Commissioners, the cities of Boise, Garden City, Meridian, Kuna, Eagle and Star, and the businesses who work hard to keep their reusable and recyclable materials out of the waste stream.

Diversion Programs

Diversion programs are methods by which Ada County reduces the amount of solid

County Diversion: Curbside Recycling; Wood Waste Recycling; Household Hazardous Materials Reuse waste being disposed in the landfill. These programs include efforts by individuals, businesses and the County to reduce the amount of reusable materials discarded and wasted in the landfill. Curbside recycling, use of recycling centers, and on-site

recycling at the landfill are examples of waste diversion programs.

Unfortunately, this report does not have access to information regarding the total diversion efforts undertaken within Ada County by individuals and businesses. Through conscious efforts to reduce waste, to reuse materials and to recycle items, the Diversion Programs of Ada County are under-reported. This report reflects only data on those items readily recorded due to contractual obligations. Ada County recognizes, and offers a great deal of thanks, to those who make the efforts to: REDUE-REUSE-RECYCLE.

Landfill Recycling Programs

At the landfill, recycling programs serve two highly useful needs. First, they provide environmentally sound methods of putting reusable resources back into the marketplace. Second, they reduce the amount of material being wasted in the landfill.



WOOD GRINDING: Wood products, whether natural wood or processed lumber, placed in the wood recycling area is ground into chips. The chips are shipped away from the landfill for a variety of uses, including fuel in electricity co-generation facilities, compost feedstock, cattle bedding, or landscaping material.

WOOD WASTE RECYCLING: Capturing a resource. Wood waste recycling is a popular program at the landfill. The rate-structure at the landfill is designed to encourage placement of wood waste in the recycling area. The disposal cost for wood is one-half (½) the lowest disposal rate. The Wood Waste Recycling Program takes any wood, whether in a processed form or in its

natural state. Wood received at the recycling area is processed on-site into chips and then shipped away from the landfill for use as fuel at electricity co-generation facilities, compost feedstock, cattle bedding, or landscaping. Through this diversion program, Ada County recovers a reusable resource normally lost to disposal. This program removes a resource that would take up considerable space in the landfill.

A privately owned company, Enviro-Progress, Inc., holds the contract for the wood waste-recycling program. This company is responsible for managing the wood recycling area, chipping the wood, and shipping to end-users. Enviro-Progress, Inc., must find its own markets for the chipped material.

The Wood Recycling Program is the most successful recycling program at the landfill. During Fiscal Year 2006, more than 79 million pounds (over 39,500 tons) of wood was hauled (diverted) from the landfill in 1,374 tractor-trailer loads.

Household Hazardous Material ReUse Program is a highly successful part of the on-site diversion/recycling programs. At the Household Hazardous Materials Collection Facility, material arriving in its original container that is at least half full, is in good condition, and is not a banned or regulated material is placed on shelves and offered to the public free of charge. Ada County would rather see this material used up than disposed. More than 1,100 customers took advantage of the ReUse Program by picking up material.

Other items recycled at the landfill include tires, refrigerators, freezers and air conditioners, oil-based paint, latex paint, automotive products, such as batteries, motor oil and anti-freeze, and computer monitors and televisions. Additional details on these items are included under the "Recycling Details" section of this report.

CURBSIDE RECYCLING

CURBSIDE RECYCLING: Community Efforts Although curbside recycling is not an on-site landfill project, the Ada County Solid Waste Management Department encourages this activity as a method of waste diversion and reduction. Many residents in the County take advantage of the convenience of the curbside recycling programs.

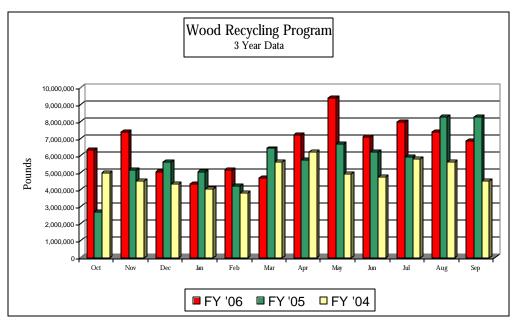
Presently, Ada County is the only county within the State of Idaho where every single-family residence may access curbside recycling. The department wishes to acknowledge the citizens of Ada County for their outstanding efforts in waste reduction and waste diversion.

Ada County and city residents placed over 9,900 tons of material at curbside for recycling. This number does not reflect the additional efforts of residents and businesses that take their recyclable commodities to recycle centers.

RECYCLING DETAILS

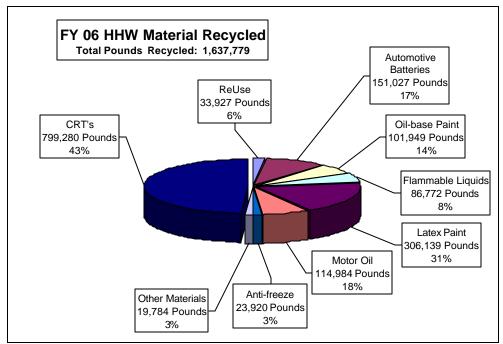
How did we do? A look at the numbers. 2004, 2005, 2006 The following pages are the graphic details of the Diversion Programs in Ada County. These graphs compare 3 years of data to serve as a guide and a reminder that sometimes more effort is due. These also serve as indicators of how well the programs are working.

Wood Waste Recycling



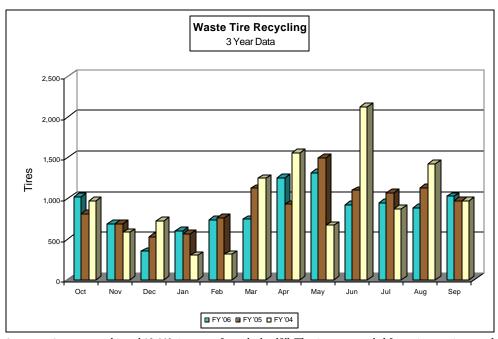
The Wood Recycling Program is the most successful recycling program at the landfill. During Fiscal Year 2006, more than 79 million pounds (over 39,500 tons) of wood was hauled (diverted) from the landfill in 1,374 tractor-trailer loads.

Household Hazardous Waste ReUse/Recycle



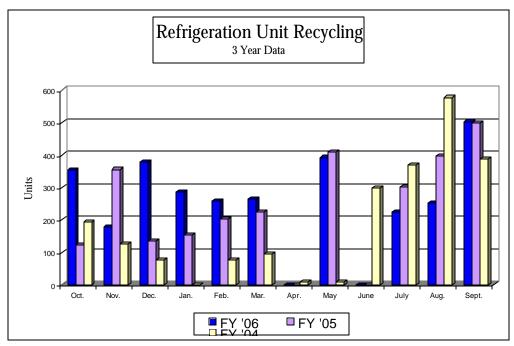
Household Hazardous Waste is recycled or reused in a variety of ways depending upon its composition.

Tire Recycling



The tire-recycling program shipped 10,446 tires away from the landfill. The tires are recycled for various projects; such are athletic tracks, road base, and fuel in the process of making cement.

Refrigeration Unit Recycling



Refrigeration units (refrigerators, freezers and air conditioners) contain Freon. Freon is a greenhouse gas that causes damage to the ozone layer of the atmosphere. At the landfill, qualified technicians remove the Freon. The Freon and the refrigeration unit are then recycled. The landfill processed 3,085 units in FY '06.

Curbside Recycling

In all, more than 9,900 tons of recyclable commodities were reported collected by the waste collection firms in Ada County. Because of its population concentration and size, the residents of the City of Boise set out the most at 6,683 tons. The residents of the City of Meridian did their part by setting out 1,485 tons. County residents (those living

Commodities collected curbside include:

Newspaper Recovered paper/Cardboard boxes Plastic Metal cans Magazines and Catalogs outside the cities' limits) set out 733 tons. Residents of the City of Eagle set out 668 tons; residents of the City of Garden City set out 251 tons; and, residents of the City of Kuna set out 164 tons.

DIVERSION PROGRAMS SUMMARY

The information presented in the Diversion Programs section of the report provides a description the County's efforts to meet its goal to keep resources from being wasted in the landfill. Can we do better? Yes, we can. However, it takes investments in the solid waste system to make larger improvements. Investments in the form of

community involvement, market innovation, and awareness by all that valuable resources should be kept from the waste-stream.



Recycling is an expensive proposition because the commodities collected in this area must be shipped several hundred miles to a recycling market. To make recycling in Ada County truly make sense, the collected commodities must be put to use locally in the creation of new products. Removing transportation cost from the recycling equation provides a more cost effective system in managing the resources of recyclable materials.

Until then, we must all make more conscious efforts to:



SOLID WASTE MANAGEMENT

Ada County's Solid Waste Management Department is responsible for proper disposal of the over 800 million pounds of trash generated in Ada County annually. The department's primary duties include operational oversight of:

- The Hidden Hollow Landfill:
- The County's Household Hazardous Materials Management Program;
- The landfill's environmental controls systems; and,
- The on-site recycling and diversion programs.

Additional Responsibilities

Included among these responsibilities are:

- ➤ Enforcement of County codes relating to human health, waste accumulation, unlawful disposal, uncovered and unsecured loads, and littering;
- Collection of landfill disposal fees;
- ➤ Issuance of burn permits for locations outside fire districts;
- ➤ Accounting for all department receipts and expenditures;
- ➤ Provision of public education and information about solid and hazardous waste, recycling, and waste reduction methods; and,
- ➤ Overseeing contracts with privately owned companies performing a variety of services and projects for the County.

To accomplish its responsibilities and duties, the department relies heavily on well-developed partnerships between Ada County and privately owned companies with which the County contracts for services. These contracts range from engineering services to landfill operations and waste screening, to recycling projects, to hazardous material management. In all, more than \$3.98 million dollars was paid for contract services rendered to Ada County in Fiscal Year 2006.

In addition to the regular, day-to-day operations contracts, the Department has been overseeing the construction of the first phase of the replacement landfill for Hidden Hollow. The contracts for this project total more than \$20 million.

The Department

Although the department has the large responsibility of ensuring proper disposal of Ada County's municipal solid waste, it does so with a staff of 12, five who work part-time.

The Solid Waste Management Department is part of Ada County government. As such, the department Director answers directly to the Board of Ada County Commissioners. All daily operational decisions are under the discretion of the Director with long-term plans and needs discussed with the Commissioners. Besides daily operation and oversight of the previously mentioned contracts, the Director meets with the Ada County Treasurer to recommend contractual adjustments to the waste collection contract to the Commissioners.

Staffing and Divisions

To accomplish its responsibilities, goals and mission, the department consists of three divisions identified by their primary objectives. The three divisions are: Solid Waste Division, Hazardous Waste Division, and Environmental Division. Although the department divisions define the division of labor, the three divisions are closely allied and coordinated to achieve the common objectives of environmentally and fiscally sound management of Ada County's municipal solid waste management system.

Solid Waste Division

The Solid Waste Division is the largest division in the department. Under the direction of the Director are a Deputy Director, a Health Protection Officer, two Account Clerks, one Environmental Systems Coordinator and five part-time Cashiers. These employees:

- Oversee contracts for waste collection, landfill operation, wood waste recycling, and solid waste screening;
- Account for department receipts and expenditures;
- Collect landfill disposal fees;
- Provide public education and outreach programs about solid and hazardous waste disposal, recycling, and waste reduction;
- Enforce Ada County codes relating to human health, waste accumulation, unlawful waste disposal, uncovered or unsecured loads, and littering;
- Issues burn permits for locales outside fire districts.

The Staff

The Deputy Director provides short and long range analysis and plan development for various solid and hazardous waste functions and activities, conducts analysis of annual waste streams, recommends the development of new programs that result in diversion and/or reduction of the waste stream, and conducts studies of special areas of emphasis.

The Health Protection Officer (HPO) is a sworn deputy for the Ada County Sheriff who works for the Solid Waste Management Department. The HPO enforces, by vehicular patrol and visual inspection, County ordinances and federal laws relating to solid waste, hazardous waste, and air pollution. With jurisdiction in the unincorporated areas of Ada County, the HPO patrols over 900 square miles. The HPO also serves as the first-line supervisor for the department. He ensures proper landfill operation, oversees maintenance projects, and acts under the department's Director's authority in resolution of questions and disagreements.

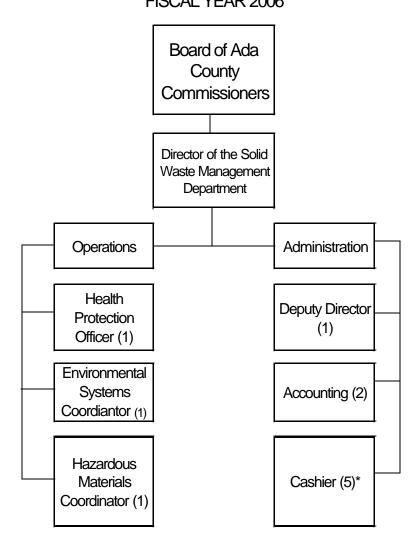
Account Clerks perform the full range of record keeping work in the detailed maintenance of the financial status of the Solid Waste Management Department, maintain accurate details of daily receipts and transactions, and monitor charge account activities of approved customers, and accomplish secretarial duties for the department.

The Environmental Systems Coordinator oversees operation and maintenance of the landfill gas extraction system, irrigation system, and other facilities located at the Hidden Hollow Sanitary Landfill. This position is also responsible for creating reports regarding systems function and operation.

The Hazardous Materials Coordinator oversees operation and maintenance of the County's hazardous materials collection program. This position works with the municipalities in the County to provide a seamless program for proper disposal of household hazardous wastes.

Cashiers greet customers, charge and collect fees from landfill customers, maintain custody and account for money received.

Ada County Solid Waste Management Department Organization Chart FISCAL YEAR 2006



^{* 5} part-time cashiers

Board of Ada County Commissioners									
First District Second District Third District									
Judy M. Peavey-Derr	Rick Yzaguirre	Fred Tilman							

Director of the Solid Waste Management Department Dave Neal

Hazardous Waste Division

Recognizing a threat to the environment and to human health, Ada County established the Hazardous Waste Division to manage potentially hazardous material brought to the Landfill. The division is a direct descendant of annual household hazardous waste collection events held between 1989 and 1996. These highly successful and popular events were the result of cooperative efforts among Ada County, Boise City, the Central District Health Department, and the Ada County Highway District.



Because of the popularity and the increasing costs of the events, Ada County made the commitment to construct a permanent household hazardous material collection facility at the Landfill. In 1998, the County's Household Hazardous Material Collection Facility (Facility) opened. One County employee, a Hazardous Material Coordinator, oversees the operation of the Facility.

The Board of County Commissioners directed that any household hazardous material collected by local jurisdictions in Ada County could be brought to the facility and Ada County would pay the disposal costs. As part of its continuing support of the hazardous material collection program, the City of Boise purchased a van for use as a mobile collection site. Boise's very successful program has been copied, to a lesser extent, by the City of Meridian, the City of Eagle and the City of Kuna.



Ada County's Household Hazardous Materials Collection Facility

HAZARDOUS MATERIAL MANAGEMENT

Located at the Landfill, Ada County's Household Hazardous Material Collection Facility accepts hazardous, potentially hazardous, or dangerous material from households in Ada County. Through a contract with a private firm specializing in hazardous material management (Clean Harbors, Inc.), County residents may bring their household hazardous materials, such as, paints, pesticides, fertilizers, cleansers, solvents and automotive products (oils, anti-freeze, batteries, etc.) to the Facility at no charge. Conditionally exempt small quantity generators (commercial enterprises that generate less than 220 pounds of hazardous wastes per month) may qualify to use the Facility services at a nominal cost.

The Facility at the Landfill is open to Ada County residents each Friday and Saturday. The Facility accepts conditionally exempt small quantity generator waste by appointment only. Supplementing Landfill collection activities are collection activities in the cities of Boise, Meridian, and Kuna. For Fiscal Year 2006, more than 17,600 households took advantage of the collection program.

Mobile Collection

CITY OF BOISE

The City of Boise has been a long-time partner and supporter of the hazardous material collection program in Ada County. With the opening of Ada County's



permanent facility, Boise City recognized an opportunity to provide a convenient service to its residents. Boise City purchased a van and equipped it for use as a mobile collection vehicle. Each week, the City visits one of eight (8) sites around the City. More than 5,600 city households took advantage of the collection sites in this last fiscal year.

CITY OF MERIDIAN

Two days each month, residents in the Meridian area can take their household hazardous materials to the Meridian collection site. Through a cooperative agreement with the City of Boise, the City of Meridian is able to use the Boise's collection van for the monthly event. Over 1,500 households took advantage of the Meridian collection site during Fiscal Year 2006.

The Meridian event is rather unique in its design. Meridian's trash collection company, Sanitary Services Company (SSC) collects recyclable commodities at curbside. Revenue from the sales of the commodities pays for the collection event with any money left over going to the City. The City has paid for playground equipment with the extra funds.

CITY OF KUNA

Another unique program happens within the City of Kuna. Each Spring, the City of Kuna promotes a weeklong community clean up. J&M Sanitation, the City's trash collection contractor, is a major contributor to the event by paying the hazardous waste firm to manage the household hazardous material collected during the last day of the event. Each Spring and each Fall, the City of Kuna and J&M Sanitation sponsor a one-day household hazardous material collection. This fiscal year, 197 households participated in the household hazardous material collection events.

CITY OF EAGLE

Quarterly, the City of Eagle sponsors collection locations for household hazardous waste. Over 170 residents in the Eagle area dropped off over 7,200 pounds of material.

COLLECTED MATERIALS

Hazardous material collected in the countywide program is taken to the County's Facility for processing and shipment to disposal facilities. Ada County's hazardous material contractor, Clean Harbors, Inc., categorized and processed 980,489 pounds of material.



Clean Harbors, Inc. segregates the material into following categories:

- ReUse Program
- CRTs
- Automotive Batteries
- Oil-based Paint
- Flammable Liquids
- Latex Paint
- Motor Oil
- Antifreeze
- Pesticides
- Other

Due in large part to Ada County's priority for waste management, Clean Harbors, Inc. strives to recycle/reuse as much of the collected material as possible. This past fiscal year saw 838,499 pounds (86%) recycled/reused, with 141,990 pounds (14%) destroyed at an off-site incinerator.

COMPUTER MONITORS AND TELEVISIONS

A real problem in the waste stream is electronics disposal. Modern electronics contain various hazardous or potential hazardous components, such as heavy metals. Because technology changes so rapidly, computer equipment quickly becomes obsolete. Of particular concern to Ada County are computer monitors and television sets.

Monitors and television sets, and other electronic devices containing a cathode ray tube (CRT), contain up to eight pounds of lead. If the glass of the CRT is broken, the lead becomes leachable and can be a hazard to human health and the environment.



CRTs prepared for shipment to recycle center.

In Fiscal Year 2006, Ada County shipped more than 19,900 units (CRTs) to a recycling facility. Since the program began, Ada County has shipped over 57,900 units.

Environmental Division

The Environmental Division oversees the specialized systems for landfill gas, groundwater contamination remediation, leachate management, and other mechanic/electrical systems around the landfill. One full time employee is responsible for these various systems to ensure compliance with regulations and operating requirements.

Landfill gas management continues to be a high priority for the department. Balancing the gas extraction system to optimize gas control for regulatory compliance is nearly a full-time job in itself. There is also a desire by the County to provide as much landfill gas as possible to a landfill-gas-to-energy project located at the landfill. The gas-to-energy project is discussed later in this report under the "Public-Private Partnership" section.

Public - Private Partnership

From the landfill's opening in the spring of 1972, Ada County has contracted with privately owned companies for daily landfill operations. Over the years, the County has increased the number of private contractors performing work for the Solid Waste Management Department.

Initially, just daily landfill operations were covered. At the end of Fiscal Year 2006, the Solid Waste Management Department was overseeing contracts totaling more than \$20 million. The contracts for services covered engineering services, daily operations, waste screening, organics recycling, hazardous waste management, and construction of the first stage of a replacement landfill.

By contracting for services with privately owned companies, Ada County is able to ensure the most cost-effective service delivery for the County through competitive bids. This method has enabled Ada County to provide its residents a solid waste management system with some of the lowest disposal fees in the State.

For more than thirty years, Ada County has proven that a public-private partnership works and works well. Ada County's Solid Waste Management Department provides the system-core management while the private sector provides the equipment and manpower to accomplish the tasks associated with safely managing more than 800 million pounds of trash annually.

Before issuing any contract for services, Ada County issues a Request for Qualifications or a Request for Proposal. The request specifies the criteria for qualification and the specifics for the work to be done under the terms of a contract. Each contractor listed below competed with other firms for their contracts affording Ada County the opportunity to obtain the highest quality for the best price.

This practice allows the department to control expenses for payroll and benefits. Besides providing job opportunities within the community and support to the local economy, using private contractors selected through competitive bidding, Ada County controls its overall disposal costs.

THE CONTRACTORS

Through carefully written contracts, Ada County provides an effective, low-cost

Contractors at the landfill employ 25 –35 staff depending on the season.

solid waste disposal system to its residents. In a typical year, the Solid Waste Management Department oversees six (5) contracts for services ranging from engineering services to waste screening services. Following is a description of the contracts and the contractors.

LANDFILL OPERATIONS

Typically, the Solid Waste Management Department's largest contract is for daily operations at the landfill. This includes waste compaction, daily waste cover, intermediate

cover, road construction and maintenance, as well as other incidental work keeping the landfill open and operating.



Environmental Earthworks, Inc. provides all of the daily operations at the landfill. As required by the contract between Ada County and Environmental Earthworks, this contractor supplies all the equipment and personnel necessary to complete the work specified in the contract. Last fiscal year, Ada County paid Environmental Earthworks \$1,802,580.

WASTE SCREENING

To ensure that hazardous or dangerous wastes are not disposed in the landfill, Ada County contracts for waste screening services. Employees of Environmental Earthworks, Inc. interview landfill users and examine loads to intercept inappropriate material. Environmental Earthworks takes the hazardous material collected at the landfill disposal area to the household hazardous material facility for proper management and disposal. For services during Fiscal Year 2005, Ada County paid Environmental Earthworks \$203,088.

ORGANICS RECYCLING

Ada County has operated a highly successful recycling program at the landfill since 1994. Customers are encouraged to separate their wood waste from their other waste for recycling. Originally, a 2-year pilot project, the wood recycling program proved popular and successful. From its modest beginnings with 10,000 cubic yards recycled the first year, Ada County's current contractor recycled more than 197,500 cubic yards for Fiscal Year 2006.

Ada County contracts with Enviro-Progress, Inc. for wood and organics recycling. The County pays this firm for material that is chipped and hauled away from the landfill. Ada County pays Enviro-Progress \$4.57 per cubic yard. For Fiscal Year 2006, Ada County paid \$944,293 for wood waste and organics recycling.



Along with the wood and organics recycling, Ada County offers programs each year to encourage recycling leaves in the fall and Christmas trees at the end of the season. For several weeks during late autumn, residents can bring in their leaves at no charge. The leaves are run through the wood chipper and composted for a couple of years. The compost is then used for revegetation projects at the landfill.

Christmas trees are accepted at no charge for 3 weeks following the Christmas holiday. These trees are chipped and mixed with the other wood for use as fuel in electricity co-generation facilities.

HAZARDOUS WASTE MANAGEMENT

Since 1988, Ada County has proactively worked to keep household hazardous materials from entering the landfill. Starting with a one-day annual collection event, the popularity of the program grew to the point where Ada County saw the need for a permanent collection facility that was open year-round. In 1998, Ada County opened its Household Hazardous Material Collection Facility operated by a privately owned firm experienced in hazardous waste management.

Ada County presently contracts with Clean Harbors, Inc. for hazardous material management and disposal. Clean Harbors, Inc. operates the facility according to an operations plan and contract documents. For Fiscal Year 2006, Ada County paid Clean Harbors, Inc. \$856,458.

Engineering

CH2MHill, Inc. is the department's engineering consultant. They provide a variety of engineering services that includes annual operations, surveying, and rate of fill calculations, and groundwater monitoring and reporting. During Fiscal Year 2006, Ada County paid CH2MHill \$108,340 for engineering services for operational consultations.

LANDFILL-GAS TO ENERGY

In late September 2005, the Board of Ada County Commissioners entered into an agreement for the utilization of landfill gas generated by Ada County's landfill. The gas is to be used as fuel in an electricity co-generation facility. After reviewing requests for proposals for the project, the Board entered into an agreement with G2 Energy from Atlanta Georgia.

The landfill gas system collects roughly 1,100 standard cubic feet of gas per minute. Since 2003, the County has been disposing of the gas by burning it in an enclosed utility flare. The County installed the gas extraction system and flare to control odors. By entering into the agreement with G2 Energy, the County is turning a nuisance gas into a renewable resource capable of providing enough electricity to power 2,400 homes.



Ribbon cutting at the co-generation facility.

The agreement between Ada County and G2 Energy calls for G2 Energy to pay Ada County for the BTU value of the gas used to power the generators. G2 Energy estimates that payments to Ada County could reach \$300,000 annually.

ENGINEERING, OVERSIGHT AND CONSTRUCTION:

THE NORTH RAVINE CELL

Fiscal Year 2006 saw Ada County enter into a long-term project to provide solid waste disposal capacity for many years. In February 2006, the County issued a contract for construction of the first stage of the North Ravine Cell, a landfill to replace the existing Hidden Hollow Landfill. Additional information on this project is included later in this report. This section includes contract information on the North Ravine Cell.

OWNER'S REPRESENTATIVE

Ada County contracts with Riley, Park, Hayden and Associates to act as the County's representative in contract oversight during permitting, design and construction of the new landfill. For Fiscal Year 2006, Ada County paid Riley, Park, Hayden and Associates \$120,000.

ENGINEERING

CH2MHill, Inc. is the department's engineering consultant for the North Ravine Cell. CH2MHILL provided design and permitting services and construction management services. During Fiscal Year 2006, Ada County paid CH2MHill \$1,529,860 for engineering services.

CONSTRUCTION

In February 2006, Ada County entered into an agreement with Western Construction, Inc. for the construction of the first stage of the North Ravine Cell. During Fiscal Year 2006, Ada County paid Western Construction, Inc. \$16,188,688 for construction activities.

North Ravine Cell: Stage 1

da County's current landfill cell (Hidden Hollow Landfill) is nearing its designed capacity. By the year 2010, Ada County will need additional landfill capacity to meet its solid waste disposal obligations.

Following an extensive public involvement process, the Board of Ada County Commissioners decided to expand landfill capacity within the property owned and maintained for landfill purposes. After careful consideration, the department selected a site designated as the North Ravine Cell as the location within the property that meets the criteria set by the Commissioners.

Once the site was chosen, Ada County's consulting engineers began the investigation process to determine the location's suitability for landfill development. Federal and state regulations specify criteria against which a site is measured for suitability.

On June 28, 2005, after reviewing reports submitted by Ada County's consulting engineers, the Director of the Idaho Department of Environmental Quality, certified the proposed North Ravine Cell site as complying with Idaho Code § 39-7407 – Site Certification.

The North Ravine Cell will be a state-of-the-art landfill that includes environmental control systems for: landfill-gas management, leachate management and storm-water management. These systems will be installed as waste is placed in the landfill.

Constructed in phases, with the first stage being approximately 20-acres in size, the completed North Ravine Cell landfill will encompass roughly 400 acres. This is sufficient to provide Ada County 100 years of landfill capacity. This is a true "long-term" solution enabling Ada County to meet its obligation to the residents, businesses and institutions of Ada County for waste management.

Western Construction Incorporated, a Boise Idaho construction firm, was selected by Ada County after competitive bidding, as the contractor for construction of Stage 1. This stage included moving more than 2 million cubic yards of dirt and installation of roughly 20 acres of rugged HDPE plastic liner.

The North Ravine Cell (NRC) is located directly north of the existing Hidden



Hollow Landfill. This site is within the County's property that was purchased over time by various Boards of Ada County Commissioners to provide longterm solid waste disposal options for Ada County. Once an isolated, out-of-the way location, the landfill site is now centrally located relative to the County's population base.

The NRC is located in the bottom of a long valley. Consideration of the scenic views of the area was part of the decision-making process and one of the criteria used to determine the best location for the NRC. Apart from a very narrow vista from the northwest, the disposal activities in the NRC will not be seen from the Boise Valley.



The photo at left is an aerial view of the NRC site. This view is from the west looking east. The Hidden Hollow Landfill is clearly visible in the upper right portion of the photo. The NRC is in the long valley on the left.

Ada County expects to begin using the NRC in early Spring 2007. This is just in time to begin the process of design and construction of Stage #2.

PAYING FOR IT

Revenue and Expenditures

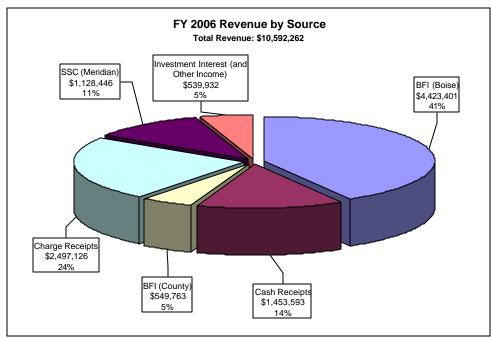
Ada County's Solid Waste Management Department operates as an Enterprise Fund. As such, the department receives no tax dollars for support or operation. The department must pay for all expenses from disposal fees collected at the gate.

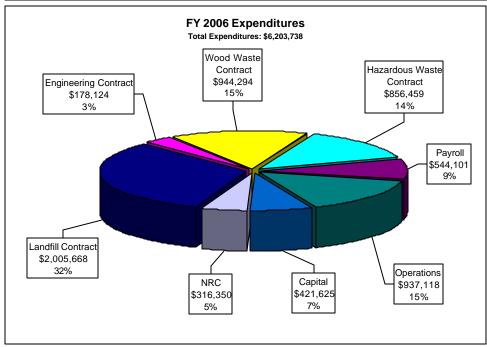
In Fiscal Year 2006, the department's regular budget (daily operating expenses, gate revenue) ended with revenue exceeding expenditures. When revenue exceeds expenditures, the funds are deposited in a reserve account for future needs.

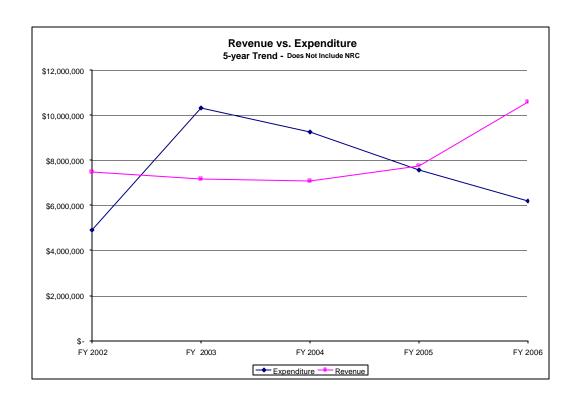
Funding of the North Ravine Cell construction project came from the reserve account. The budget funding the North Ravine Cell construction project came entirely from the reserve account. Any funds remaining in the NRC budget at completion of the project will be returned to the reserve account for future projects.

While looking at the following graphs, the importance of the reserve fund becomes apparent. It is through careful fiscal management that the department has been able to meet its obligations.

Following are charts detailing the department's revenues (by source) and expenditures.



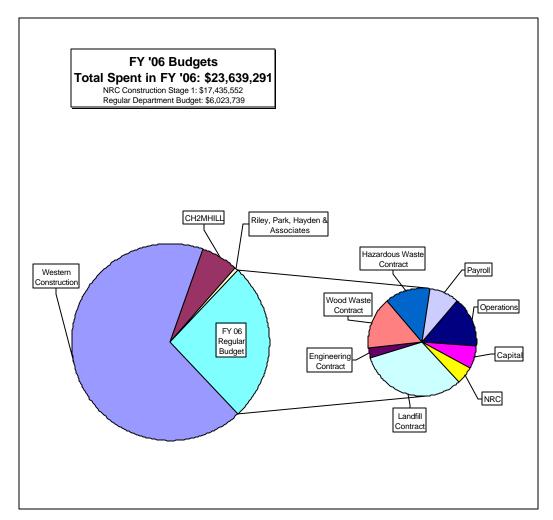




Construction Expenses and the Budget

The above graphs look at the Solid Waste Management Department's regular, routine budget items. During Fiscal Year 2006, the department also managed the North Ravine Cell (NRC) — Stage 1 construction budget. Combined, the budgets totaled more than \$23.6 million. The lion's share of this amount was spent on the NRC.

The following graph shows a comparison of the total budget: NRC and the regular budget.



One of the biggest challenges faced by the department is ensuring there are funds in reserve to cover all obligations.

As an Enterprise Fund, no tax dollars are used for any of the daily operations or long-term projects undertaken by the department. The department's reserve fund will also be used for closure costs and long-term care of the Hidden Hollow Landfill.

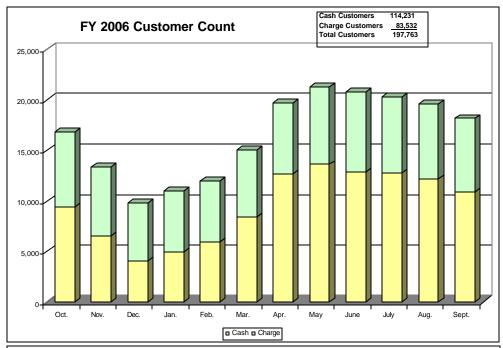
The NRC Stage 1 project crossed into the Fiscal Year 2007 Budget. Roughly, \$3 million will be paid by the department for completion of the project.

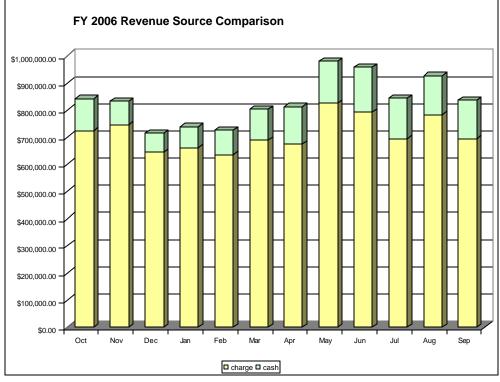
With all projects at the landfill paid for by fees collected at the gate, it is important to recognize that the fees subsidize some of the recycling programs. Programs subsidized by the gate fees include the:

- Household Hazardous Waste Program;
- Wood and organics recycling;
- Refrigeration unit processing; and,
- Tire recycling.

These programs receive approximately \$1.2\$ million dollars from the department's budget.

ODDS AND ENDS (CUSTOMER COUNTS AND MATERIALS)



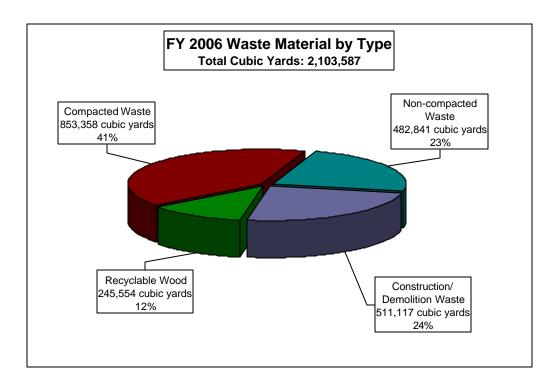


WASTE MATERIAL

Waste entering the Hidden Hollow Sanitary Landfill arrives in all forms. However, for convenience and simplicity, this report classifies waste into four (4) basic categories:

- Compacted Waste waste that arrives in a "packer" truck or commercial compactor.
- Non-compacted Waste typically regular household trash; may be delivered by persons hauling their own waste.
- Construction/Demolition Waste waste from any construction or demolition project. This waste type includes wood, metal, wallboard, rocks, concrete, dirt, appliances, or any other material that does not compact well in the landfill. For the purposes of this report, asbestos-containing material is being included in this waste category although it has its own set of regulations and disposal standards.
- Recyclable Wood wood waste placed in the wood recycling area. This
 material is recycled and not buried in the landfill.

The following chart shows the breakdown of materials received at the landfill in cubic yards.



SYNOPSIS

Hopefully, the reader has detected the department's theme for this year's report.

Reduce-Reuse-Recycle

Meeting the demands for an efficient and cost effective solid waste management system involves the entire community. There have been wonderful efforts by the residents and businesses in Ada County to aid the County's Solid Waste Management Department to assist the department in meeting its mission and goals. There is much more to do.

As the County brings its new landfill on-line in the Spring of 2007, it is in the best interest of all concerned to ensure that the new landfill measures up to meeting the needs of solid waste disposal in Ada County. To get the best return on the County's investment – the Public's investment – increased efforts to divert valuable materials from the waste stream are necessary.

The Ada County Solid Waste Management Department continually strives to ensure the residents, businesses and institutions in Ada County continue receiving the highest quality service at reasonable rates by staying abreast of technological changes in solid waste disposal. Where cost effective, the new technologies will be introduced to the County's solid waste system.

The Solid Waste Management Department thanks you for your interest in the progress of the department. Fiscal Year 2006 brought many changes to the County's solid waste disposal system: changes that include a landfill gas-to-energy project and the construction of the first stage of a new landfill. The department eagerly looks forward to future years and progress as we look for ways to answer the call to:



Appendices

Appendix -A

Ada County Curbside Recycling Program Commodities Collected by BFI/Allied Waste (Measured in Tons)

Commodity	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
ONP	28.37	33.24	32.41	32.65	25.70	30.12	27.75	32.19	32.12	37.03	44.70	40.77	397.05
MWP/OCC	15.06	17.76	17.32	17.45	13.73	16.10	14.83	17.21	17.17	19.79	23.89	21.79	212.1
Plastic	3.22	3.78	3.68	3.71	2.92	3.42	3.15	3.66	3.65	4.21	5.08	4.63	45.11
Tin	1.48	1.73	1.69	1.70	1.34	1.57	1.45	1.68	1.67	1.93	2.33	2.13	20.7
Aluminum	.85	.87	.84	.85	.67	.79	.72	.84	.84	.97	1.17	1.06	10.47
OMG	3.43	4.02	3.92	3.95	3.11	3.65	3.36	3.90	3.89	4.48	5.41	4.94	48.06
Totals	52.41	61.4	59.86	60.31	47.47	55.65	51.26	59.48	59.34	68.41	82.58	75.32	733.49

ONP = Newspaper MWP/OCC = Recovered Paper/Cardboard Boxes

Plastic = #1, #2, #3

Tin = Steel "Tin" Cans

Appendix -B

City of Boise Curbside Recycling Program Commodities Collected by BFI/Allied Waste (Measured in Tons)

Commodity	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
ONP	324.21	379.84		373.10	293.69	344.26	317.14	367.93	367.11	302.25	364.89	332.83	
			370.35										3770.49
MWP/OCC	172.07	203.00	197.93	199.41	156.96	183.99	169.49	196.64	196.20	161.54	195.02	177.88	1836.05
Plastic	36.83	43.15	42.07	42.38	33.36	39.11	36.02	41.79	41.70	34.33	41.45	37.81	390.49
Tin	16.90	19.81	19.31	19.45	15.31	17.95	16.54	19.18	19.14	15.76	19.03	17.35	179.24
Aluminum	9.66	9.90	9.66	9.73	7.66	8.89	8.27	9.59	9.57	7.88	9.51	8.68	90.75
OMG	39.24	45.98	44.83	45.16	35.55	41.67	38.39	44.53	44.44	36.59	44.17	40.29	416.11
Totals	603.75	707.33	689.67	694.79	546.90	641.08	590.57	685.15	683.63	562.85	679.50	619.79	6683.13

ONP = Newspaper MWP/OCC = Recovered Paper/Cardboard Boxes

Plastic = #1, #2, #3

Tin = Steel "Tin" Cans

Appendix -C

City of Eagle Curbside Recycling Program Commodities Collected by BFI/Allied Waste (Measured in Tons)

Commodity	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
ONP	32.42	37.98	37.04	37.31	29.37	34.43	31.71	36.79	36.71	30.23	36.49	33.28	377.05
MWP/OCC	17.21	20.30	19.79	19.94	15.70	18.40	16.95	19.66	19.62	16.15	19.50	17.79	183.6
Plastic	3.68	4.31	4.21	4.24	3.34	3.91	3.60	4.18	4.17	3.43	4.14	3.78	39.04
Tin	1.69	1.98	1.93	1.95	1.53	1.80	1.65	1.92	1.91	1.58	1.90	1.74	17.93
Aluminum	.97	.99	.97	.97	.77	.90	.83	.96	.96	.79	.95	.87	9.1
OMG	3.92	4.60	4.48	4.52	3.55	4.17	3.84	4.45	4.44	3.66	4.42	4.03	41.61
Totals	59.89	70.16	68.42	68.93	54.26	63.61	58.58	67.96	67.81	55.84	67.4	61.49	668.33

ONP = Newspaper

MWP/OCC = Recovered Paper/Cardboard Boxes

Plastic = #1, #2, #3

Tin = Steel "Tin" Cans

Appendix - D

City of Garden City Curbside Recycling Program Commodities Collected by BFI/Allied Waste (Measured in Tons)

Commodity	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
ONP	12.16	14.24	13.89	13.99	11.01	12.91	11.89	13.80	13.77	11.33	13.68	12.48	141.38
MWP/OCC	6.45	7.61	7.42	7.48	5.89	6.90	6.36	7.37	7.36	6.06	7.31	6.67	68.85
Plastic	1.38	1.62	1.58	1.59	1.25	1.47	1.35	1.57	1.56	1.29	1.55	1.42	14.65
Tin	.63	.74	.72	.73	.57	.67	.62	.72	.72	.59	.71	.65	6.7
Aluminum	.36	.37	.36	.36	.29	.34	.31	.36	.36	.30	.36	.33	3.41
OMG	1.47	1.72	1.68	1.69	1.33	1.56	1.44	1.67	1.67	1.37	1.66	1.51	15.59
Totals	22.45	26.3	25.65	25.84	20.34	23.85	21.97	25.49	25.44	20.94	25.27	23.06	250.58

ONP = Newspaper

MWP/OCC = Recovered Paper/Cardboard Boxes

Plastic = #1, #2, #3

Tin = Steel "Tin" Cans

Appendix - E

City of Meridian Curbside Recycling Program Commodities Collected by SSC (Measured in Tons)

Commodity	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
ONP/OMG	61.60	79.88	77.52	77.84	63.58	73.02	69.11	82.04	77.36	66.97	79.94	74.31	883.17
MWP/OCC	30.91	40.08	38.89	39.05	31.90	36.63	34.67	41.16	38.81	33.60	40.10	37.28	443.08
Plastic	6.35	8.23	7.99	8.02	6.55	7.52	7.12	8.45	7.97	6.90	8.24	7.66	91.00
Tin	3.02	3.91	3.80	3.81	3.11	3.58	3.39	4.02	3.79	3.28	3.92	3.64	43.27
Aluminum	1.66	2.16	2.10	2.10	1.72	1.97	1.87	2.22	2.09	1.81	2.16	2.51	24.37
Totals	103.54	134.26	130.30	130.82	106.86	122.72	116.16	137.89	130.02	112.56	134.36	125.40	1,484.89

ONP/OMG = Newspaper/Magazines/Catalogs MWP/OCC = Recovered Paper/Cardboard Boxes Plastic = #1, #2, #3 Oct thru Jun, #1 - #7 July thru Sep Tin = Steel "Tin" Cans

Residential Recycling Stops in Meridian

Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
18,495	20,370	19,532	21,930	19,234	22,055	19,279	21,822	23,637	21,223	25,766	22,652	255,995

Appendix - F

City of Kuna Curbside Recycling Program Commodities Collected by J&M Sanitation (Measured in Tons)

Commodity	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
ONP	8.20	8.28	9.40	8.87	7.94	7.35	7.68	8.64	9.02	6.56	9.52	7.97	99.43
MWP/OCC	0.91	0.92	1.05	0.99	0.88	0.82	0.86	0.96	1.01	0.73	1.06	0.89	11.08
Plastic	0.85	0.85	0.97	0.91	0.82	0.76	0.79	0.89	0.93	0.68	0.98	0.82	10.25
Tin	0.40	0.41	0.46	0.43	0.39	0.36	0.38	0.42	0.44	0.32	0.47	0.39	4.87
Aluminum	0.22	0.22	0.25	0.24	0.21	0.20	0.21	0.23	0.24	0.18	0.26	0.22	2.68
OMG	2.94	2.90	3.17	3.07	2.70	2.47	2.82	3.03	3.06	2.29	3.72	3.11	35.28
Totals	13.52	13.58	15.30	14.51	12.94	11.96	12.74	14.17	14.70	10.76	16.01	13.40	163.59

ONP = Newspaper MWP/OCC = Recovered Paper/Cardboard Boxes Plastic = #1, #2, #3 Tin = Steel "Tin" Cans OMG = Magazines and Catalogs

Special Thanks

The Solid Waste Management Department wishes to acknowledge and to extend a special "Thank You" to the following people and companies who helped in the preparation of this report.

THE BOARD OF ADA COUNTY COMMISSIONERS

Rick Yzaguirre, Chairman Judy Peavey-Derr, Commissioner

Fred Tilman, Commissioner

THE SOLID WASTE MANAGEMENT

DEPARTMENT STAFF

Dave Neal, Director

Ted Hutchinson, Deputy Director Rene Phillips, Health Protection Officer Ken Wall, Hazardous Material Coordinator Rick Schreiber, Environmental Systems

Coordinator

Jim Krosschell, Account Clerk Kathie Herman, Account Clerk

Kathy Nelson, Cashier Barbara Burkhardt, Cashier Jolie Rosenfield, Cashier Carol Hyde, Cashier

Kathy Foster, Cashier

THE BOISE PUBLIC WORKS DEPARTMENT -

ENVIRONMENTAL DIVISION STAFF

Catherine Chertudi

BFI WASTE SYSTEMS

Dave Fisher, General Manager

Rachele Klein

SANITARY SERVICES COMPANY

Steve Sedlacek Bill Gregory Symantha Miller

J&M SANITATION

Tim Gordon Todd Gordon

ENVIRO-PROGRESS, INC.

Devon Downs

CLEAN HARBORS ENVIRONMENTAL, INC.

Kurt Hunt

ENVIRONMENTAL EARTHWORKS, INC.

Joanne Haile Terry Haile

RILEY, PARK, HAYDEN AND ASSOCIATES

Ken Obenauf