

Ada County

Solid Waste
Management Department



YEAR END REPORT FISCAL YEAR 2005

DECEMBER 2005

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TABLE OF CONTENTS

Executive Summary	1
Department Mission.....	2
SOLID WASTE MANAGEMENT	5
THE DEPARTMENT	5
PUBLIC - PRIVATE PARTNERSHIP	6
THE CONTRACTORS	6
<i>Engineering</i>	6
<i>Owner’s Representative</i>	6
<i>Landfill Operations</i>	6
<i>Organics Recycling</i>	7
<i>Hazardous Waste Management</i>	7
<i>Waste Screening</i>	7
<i>Staffing and Divisions</i>	7
Staffing.....	7
The Staff.....	8
Operation and Maintenance.....	10
Burn Permits.....	11
Accounting.....	11
HAZARDOUS WASTE DIVISION.....	11
<i>Hazardous Material Management</i>	12
<i>Mobile Collection Events</i>	12
City of Boise	12
City of Meridian.....	12
City of Kuna	12
Collected Material	12
Computer Monitors and Televisions.....	13
ENVIRONMENTAL DIVISION	13
<i>Groundwater Monitoring</i>	13
<i>Surface Water Monitoring</i>	14
<i>Air Quality</i>	14
<i>Landfill Gas – Nuisance and Resource</i>	14
Landfill Gas Extraction/Gas Flaring.....	14
Landfill Gas to Energy.....	15
Long-term Development	16
THE NORTH RAVINE CELL	16
FINANCIAL HEALTH	17
<i>Revenue and Expenditures</i>	17
<i>Money in the Bank</i>	18
WASTE MATERIAL.....	20
Diversions Programs	21

LANDFILL RECYCLING PROGRAMS	21
<i>Wood Waste Recycling</i>	21
<i>Used Tires</i>	21
<i>Refrigeration Units</i>	21
COOPERATIVE DIVERSION PROGRAM.....	23
HOUSEHOLD HAZARDOUS MATERIAL.....	23
ReUse Program	24
Oil-Based Paint	24
Automotive Batteries	24
Latex Paint	24
Motor Oil and Anti-Freeze	24
Other Items.....	24
Curbside	26
Appendices.....	27

EXECUTIVE SUMMARY

As an Enterprise Fund, the Solid Waste Management Department receives no tax dollar support for its operations. The department relies solely upon revenue from disposal fees paid by customers using the landfill. Besides meeting its daily operation requirements, the department's revenue must be sufficient to meet long-term obligations and future needs.

Current operating expenses, long-term obligations and future needs are weighed against the fees collected at the gates. Through careful fiscal management, Ada County enjoys some of the lowest disposal fees in the State.

The Solid Waste Management Department continually strives to build partnerships between Ada County and privately owned companies. By using carefully constructed contracts, Ada County provides its residents a high quality solid waste management and disposal system at reasonable cost. Where feasible and appropriate, the County prefers that private enterprise perform the work rather than enlarging government to meet the needs. At the landfill, the Solid Waste Management Department oversees six contracts - contracts totaling more than \$4.8 million per annum paid to private companies.

An enormously important part of any solid waste management system is recycling. Recycling efforts in Ada County have been highly successful over the years. Unique among the counties in the State of Idaho, only in Ada County is curbside recycling available to every single-family household.

This popular method of recycling is an integral part of the waste management system of Ada County. In this report, the section on "Diversion Programs" trumpets the success of

the citizens in their recycling efforts – not only through the curbside recycling program, but also through use of neighborhood recycling facilities and use of on-site recycling programs at the landfill.

Huge among the recycling programs is the wood waste recycling program at the Hidden Hollow Sanitary Landfill. This program has seen great increases in its popularity as evidenced in the amount of material being chipped and transported away from the landfill for use as fuel in electrical co-generation facilities, compost feedstock, cattle bedding and landscaping material.

Another very popular on-site recycling program at the landfill is the Material ReUse Program in the Household Hazardous Materials Management Program. This program allows residents access to household products at no charge – useful products that were slated for disposal at considerable cost.

One of the fastest growing recycling efforts at the landfill is the recycling of cathode ray tube (televisions or computer monitors) containing electronic devices. Through our recycling program, these lead-containing devices are shipped to a facility that de-manufactures the units. Once taken apart, their components are easily recycled.

Ada County hopes that readers find the information in this report useful and helpful. The Solid Waste Management Department's ultimate goal is to provide first-rate, yet affordable service to the residents of Ada County. This report provides the reader the tools to determine whether this goal was achieved.

DEPARTMENT MISSION

The Solid Waste Management Department seeks to pro-actively manage County waste disposal facilities, enforce applicable codes, 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 materials for local schools and service groups.*

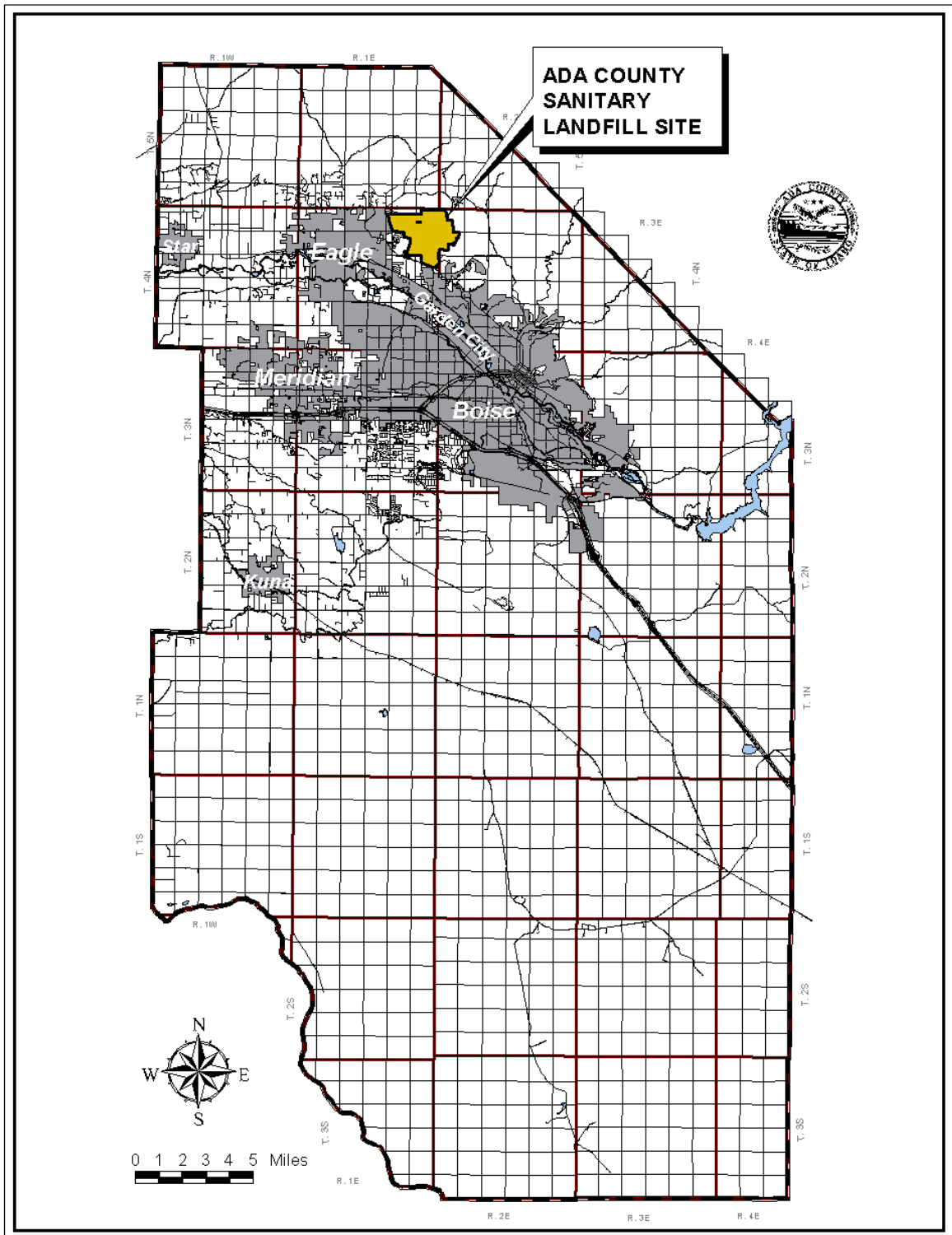


Figure 1 Ada County, Idaho

ADA COUNTY SOLID WASTE MANAGEMENT DEPARTMENT

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

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, to final landfill cover construction. In all, more than \$4.8 million dollars was paid for contract services rendered to Ada County in Fiscal Year 2005.

THE DEPARTMENT

Although the department has the large responsibility of ensuring the proper disposal of Ada County's municipal solid waste, it does so with a minimal staff. The department employs a staff of 12, six of whom work part-time. All other personnel working at the Landfill are employees of the various contractors.

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.

PUBLIC - PRIVATE PARTNERSHIP

Since opening the Hidden Hollow Sanitary Landfill 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 2005, the Solid Waste Management Department was overseeing contracts totaling more than \$4.8 million. These contracts for services covered engineering services, daily operations, waste screening, organics recycling, and hazardous waste management.

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.

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.

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 the 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.

THE CONTRACTORS

Through carefully written contracts, Ada County provides an effective, low-cost solid waste disposal system to its residents. The Solid Waste Management Department oversees six (6) contracts for services ranging from engineering services to waste screening services. Following is a description of the contracts and the contractors.

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, groundwater monitoring and reporting, and new landfill design. During Fiscal Year 2005, Ada County paid CH2MHill \$1.4 million for engineering services for major projects and for operational consultations.

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 2005, Ada County paid Riley, Park, Hayden and Associates \$120,000.

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 \$1,663,309.

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 156,300 cubic yards for Fiscal Year 2005.

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 2005, Ada County paid \$759,905 for wood waste and organics recycling.

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 that was experienced in hazardous waste management.

In 1998, Ada County contracted with MSE Environmental for hazardous material

management and disposal. MSE operates the facility according to an operations plan and contract documents. For Fiscal Year 2005, Ada County paid MSE \$717,327.

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 \$196,224.

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 Health Protection Officer, a Solid Waste Planner, two Account Clerks, one Environmental Systems Technician 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 Environmental Systems Technician 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.

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

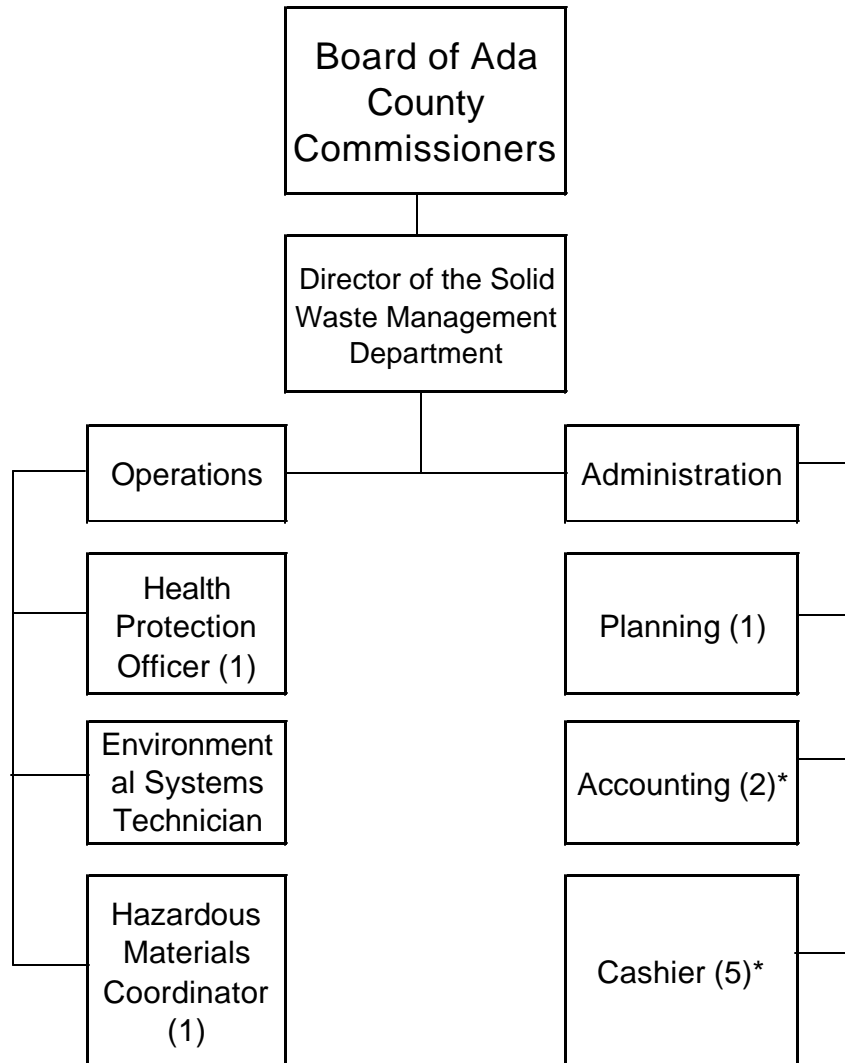
THE STAFF

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.

The Solid Waste Planner 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.

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.

Ada County Solid Waste Management Department Organization Chart FISCAL YEAR 2005



* 1 part-time Account Clerk; 5 part-time cashiers

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

Director of the Solid Waste Management Department Dave Neal
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Figure 2 - Department Organization Chart

BURN PERMITS

For areas outside fire department or fire district boundaries (approximately 665 square miles), the Ada County Solid Waste Management Department is the issuing authority for burn permits. The department issues burn permits for weed control, field burning, maintenance of irrigation ditches, or removal of tree limbs and brush; or, when other practical methods of disposal are unavailable. Ada County Code prohibits disposal of trash by burning (burn barrels).

ACCOUNTING

Because the Solid Waste Management Department is an Enterprise Fund, the only revenue source for the department is the fee collected at the landfill gate. Customers are assessed a disposal fee at the gate. Fiscal Year 2005 saw more than 184,000 customers pass through the landfill gate. This is a decrease of 8.9% over last fiscal year's number of customers.

The department's Account Clerks manage and track the monthly balances of more than 650 charge accounts. They also verify daily cash receipts and charges assessed by the cashiers.

Besides accounting for daily gate receipts and monthly charge accounts, the department is responsible for managing its annual budget. Since no tax dollars are received for operation of the department, the department has calculated careful revenue and expenditure estimates. This is to ensure that not only the operating budget is met, but also that the department is saving that sufficient money to meet long-term financial obligations.



Figure 4 - Welcome to Hidden Hollow Sanitary Landfill

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.



Figure 5 - 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 (MSE Environmental), 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 2005, more than 16,800 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 5,700 city households took advantage of the collection sites in this last fiscal year. This number is an increase over the prior year by nearly 1,200 participating households.

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 1,000 households took advantage of the Meridian collection site during Fiscal Year 2005.

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 (Ada County's hazardous waste contractor - MSE Environmental) 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, 137 households participated in the household hazardous material collection events.

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, MSE Environmental, categorized and processed 1,668,524 pounds of material.

MSE Environmental 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, MSE Environmental strives to recycle/reuse as much of the collected material as possible. This past fiscal year saw 1,532,912 pounds (91.8%) recycled/reused, with 135,612 pounds (8.2%) 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), have up to eight pounds of lead in them. When the glass of the CRT is broken, the lead becomes leachable and can be a hazard to human health and the environment.

Although these electronic devices are exempt from hazardous waste regulations (household exemption), Ada County proactively banned disposal of CRT in the Landfill. The disposal option is management through the Household Hazardous Materials Program.

In Fiscal Year 2005, Ada County shipped more than 16,800 units (CRTs) to a recycling facility. Since the program began, Ada County has shipped over 37,900 units.



Figure 6 - CRTs awaiting shipment to a recycle center.

ENVIRONMENTAL DIVISION

Responsibility for monitoring conditions in, on, under, around and above the Landfill falls to the Environmental Division. Areas monitored by the division include:

- Groundwater
- Surface water
- Air Quality

There are no permanently assigned Solid Waste Management Department employees in the Environmental Division. Monitoring is performed on a scheduled basis or on an "as needed" basis by either department staff or by the department's consulting engineer, CH2M Hill. The following functions are included in the monitoring program.

GROUNDWATER MONITORING

As required under Federal and State regulations, Ada County monitors groundwater flowing under the Landfill to quantify water quality and to detect contaminants. Groundwater flowing away from the Landfill contains trace amounts of volatile organic compounds (VOCs). VOCs come from landfill gas that has contacted the groundwater. To rectify this problem, Ada County installed a system that extracts groundwater, removes the VOCs, and returns the groundwater to the aquifer. Since the groundwater system operations began in April

1998, over 42 million gallons of water have been treated.

SURFACE WATER MONITORING

Federal and State regulations require the Solid Waste Management Department to manage run-on and runoff water that reaches the Landfill. Surface water controls include earthen berms that intercept and direct rainfall and snowmelt into collection ditches and then into a containment pond.

New interceptor ditches are installed as the surface of the Landfill changes. These ditches not only direct the flow of water across the Landfill but also reduce erosion by slowing the water as it passes over the Landfill.

AIR QUALITY

A natural by-product of trash decomposition is landfill gas. Landfill gas consists of methane and carbon dioxide in nearly equal amounts. Methane and carbon dioxide are both odorless and colorless gases. However, other trace gases (sulfides) in the landfill gas mix are quite odoriferous.

Because methane, in certain conditions, is explosive, care must be exercised at the Landfill to ensure that concentrations of landfill gas are not found outside of the landfill property. Several monitoring wells are located around the Landfill for the purpose of monitoring and recording landfill gas concentrations. As part of the Phase I Closure Project, a system to control the gas (collection and destruction) has been installed. This system is discussed in the next section of this report.

LANDFILL GAS – NUISANCE AND RESOURCE

Landfill gas is created as organic matter in the landfill decomposes. Through a 4-phase process, organic matter is broken down by bacteria naturally occurring in the waste and in the soil used as cover. Ultimately, in the 4th and final phase of decomposition, methane and carbon dioxide are produced at a fairly consistent rate in nearly equal concentrations. Included in this gaseous mix are minor amounts of other gases. These gases are smelly and obnoxious.

There are a number of reasons to control the gases created in a landfill. Among these reasons is odor control. The odorous parts of landfill gas are pungent even at low concentrations. These odors can travel quite a distance before they are diluted enough to a point where humans cannot detect them. Also, as mentioned previously, in certain concentrations, methane is a highly explosive gas.



Figure 7 Installation of Header Pipe

Landfill Gas Extraction/Gas Flaring

Ada County's landfill gas extraction system consists of 52 gas wells installed in roughly 40 acres of closed landfill. Most of the wells are vertical wells drilled directly into the buried waste.



Figure 8 Landfill Gas Drill Rig

Where the buried waste is shallow and thin, horizontal wells (perforated pipes) are installed. Both vertical and horizontal wells are connected to header pipes that connect to the gas processing station. At the gas processing station, large pumps draw the gas from the landfill to one of two flare stacks.



Figure 9 Motors and Compressors

The gas is pumped into the flare stack where it is burned for destruction.



Figure 10 LF Gas Flare Station

LANDFILL GAS TO ENERGY

In February 2005, Ada County issued a Request for Proposals for a landfill gas to energy project at the Hidden Hollow Sanitary Landfill. In September 2005, Ada County entered into an agreement with G2 Energy for the development and operation of a *Green - Power* landfill gas to energy project.

G2 Energy will begin construction on the project in early 2006. Expected project completion is anticipated around mid-2006. Based on G2 Energy's estimates, the project will produce roughly 3.2 megawatts of electricity – enough to power 2,400 homes.

LONG-TERM DEVELOPMENT

THE NORTH RAVINE CELL

Ada County's current landfill cell (Hidden Hollow Sanitary 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.

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

As the Idaho Department of Environmental Quality performed the site certification review, Ada County's consulting engineers began the landfill design. The North Ravine Cell will be a state-of-the-art landfill that includes environmental control systems for: landfill-gas management, leachate management and stormwater management. These systems will be installed as waste is placed in the landfill.

The North Ravine Cell will also be a lined landfill. The rugged HDPE plastic liner is designed to prevent leakage from the bottom of the landfill. After the initial site preparation – removal of topsoil and grading, the liner system will be installed.

Constructed in phases, with the first phase approximately 20-acres in size, the completed North Ravine Cell landfill will encompass rough 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.

Ada County anticipates construction to begin on the North Ravine Cell in early 2006. Completion of phase one and dedication of the new landfill should occur roughly 14 months after the start of construction.

FINANCIAL HEALTH

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 2005, the department's revenue exceeded the expenditures. When revenue exceeds expenditures, the funds are placed in a reserve account for future needs. The reserve account is discussed later in this report. Following are charts detailing the department's revenues (by source) and expenditures. Appendix H is a trend-graph comparing Revenue to Expenditure for a 5-year period.

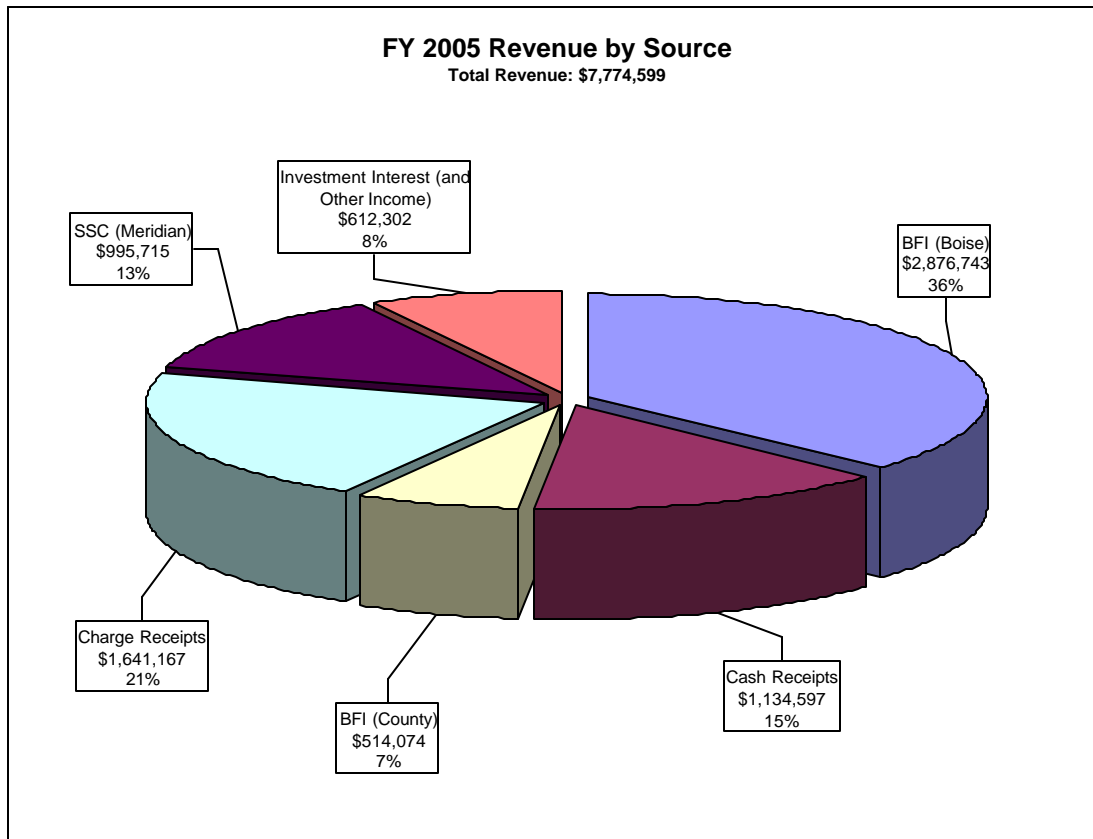


Figure 11 - FY 2005 Revenue by Source

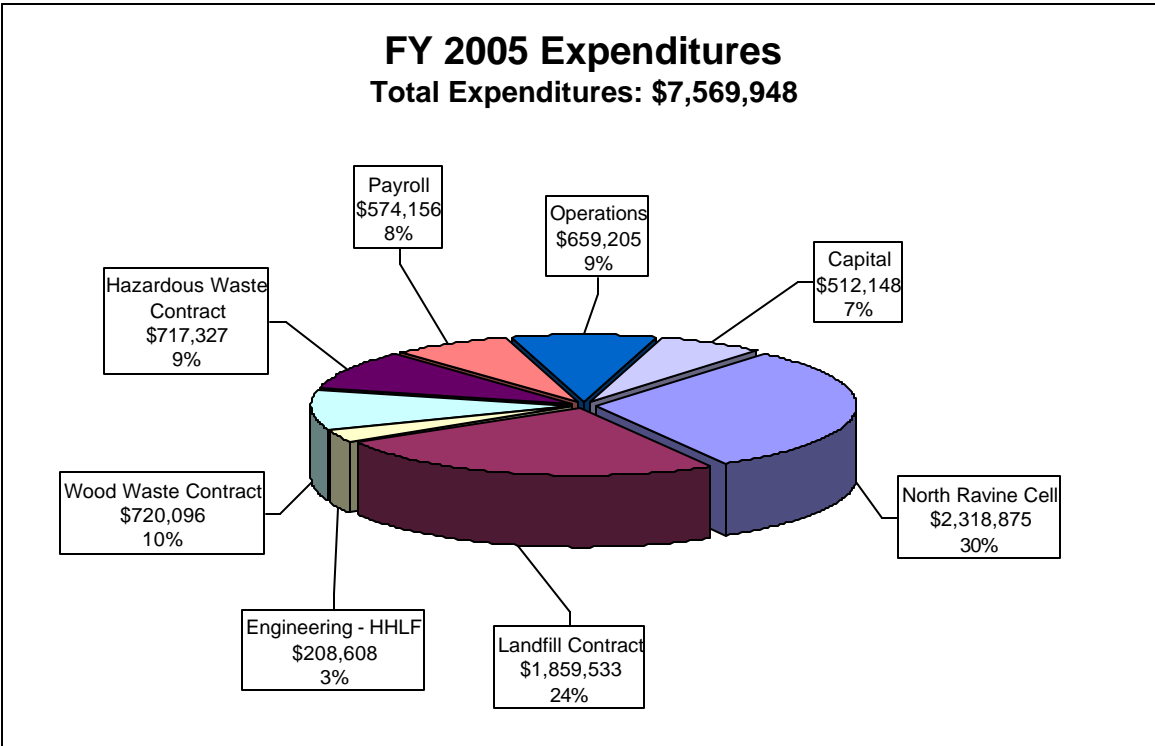


Figure 12 - Expenditure

MONEY IN THE BANK

For many years, the department placed all revenues that exceed expenditures into a reserve fund. The department's reserve fund is for closure, post-closure, and long-term solid waste system projects. Presently, Ada County's reserve fund is sufficient to meet regulatory requirements for closure and post-closure care. Post-closure care is a minimum of 30 years after the landfill closes and includes monitoring and remediation of environmental issues that may arise after closure.

In Fiscal Year 2005, the department added more than \$200,000 to the reserve fund. As one considers the amount the department was able to place in the reserve fund, it becomes more relevant with consideration of the costs associated with the diversion programs discussed later in this report.

The fees collected at the landfill gate subsidize many of the diversion activities, including recycling programs. Subsidized

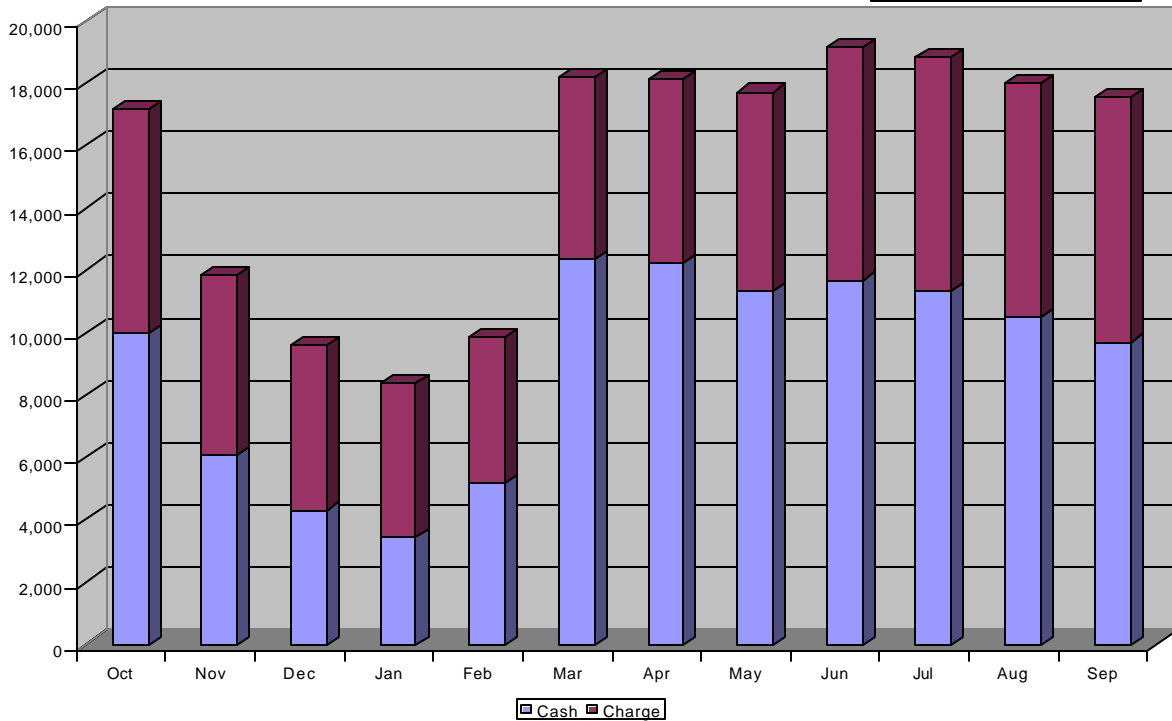
programs include: household hazardous material management (including CRT processing), refrigeration unit management, tires recycling, wood and other organics recycling. Some of these items have co-pay while others do not. Following is the breakdown of the program cost and subsidies.

Program	Co-pay	Expense	Subsidy
HHW	- 0 -	\$717,327	\$717,327
Refrigeration Units	\$32,924	\$65,706	\$32,782
Tires	\$13,108	\$21,547	\$8,439
Wood	\$316,114	\$720,095	\$403,981
Other Organics	- 0 -	\$39,809	\$39,809
Total County Subsidy:			\$1,202,338

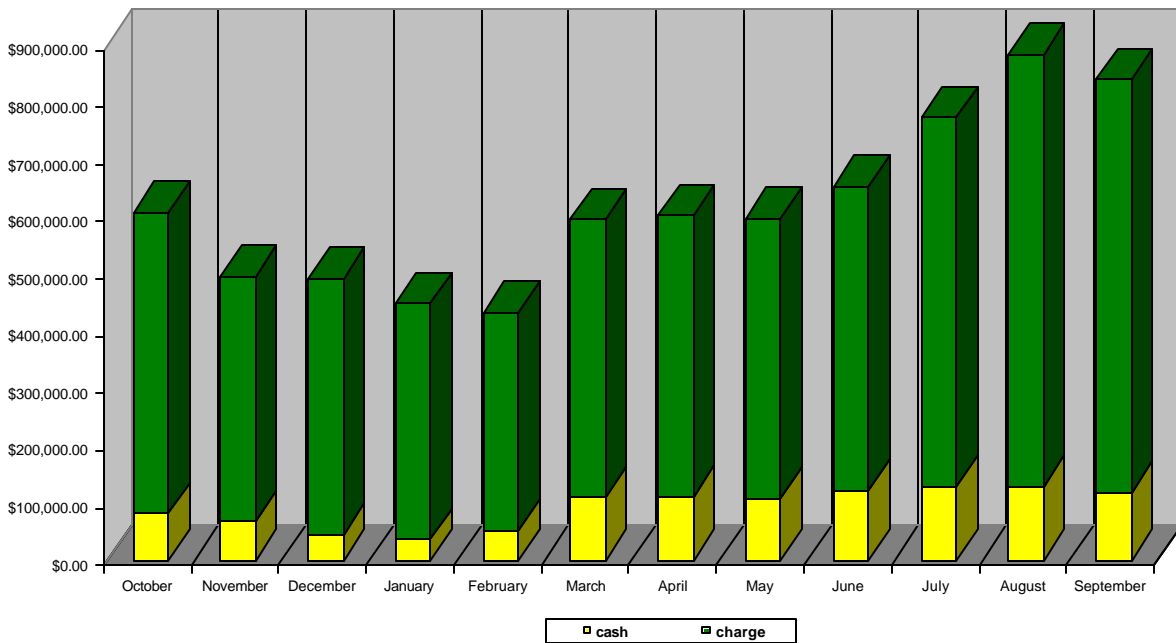
This number does not include maintenance and operation costs for the Household Hazardous Materials Program, payroll or program administration costs.

FY 2005 Customer Count

Cash Customers	108,021
Charge Customers	<u>76,392</u>
Total Customers	184,413



FY 2005 Revenue Source Comparison Cash/Charge



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.

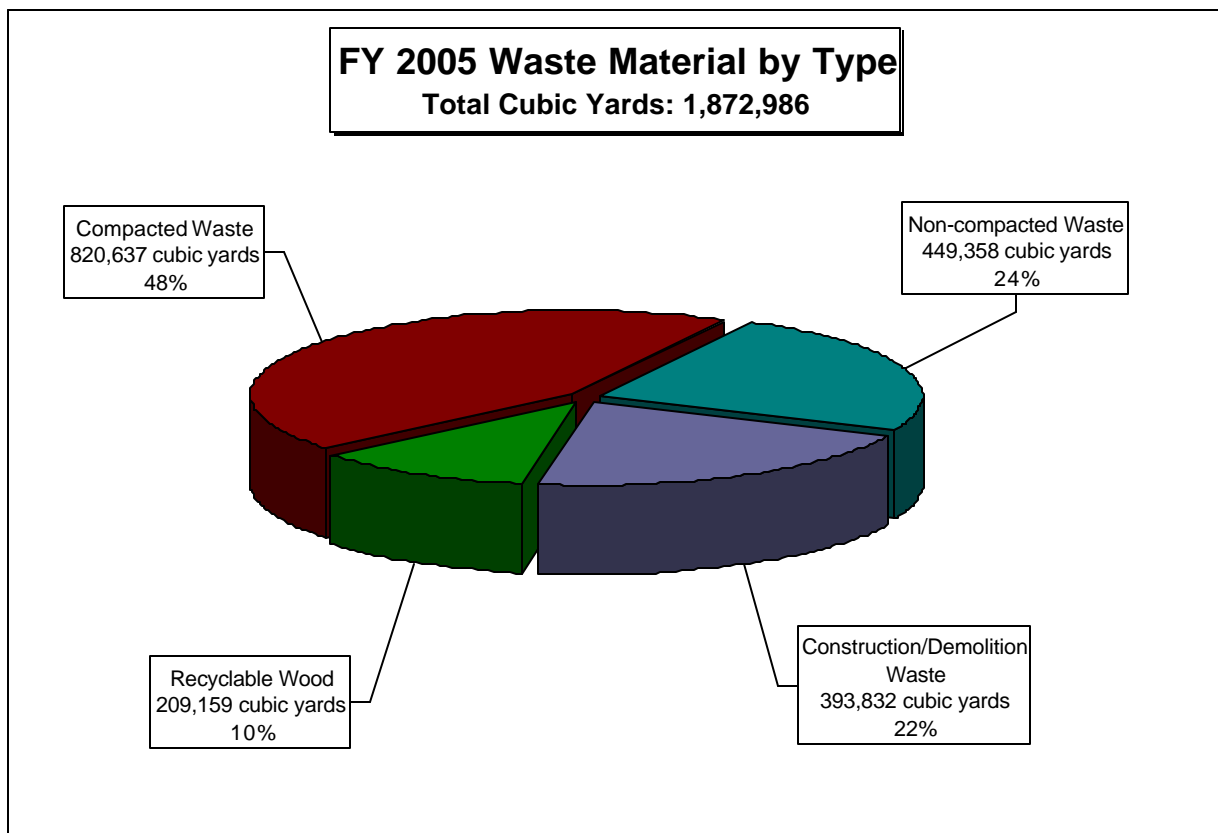


Figure 13 - Hidden Hollow Waste Types by Volume

DIVERSION PROGRAMS

Diversion programs are efforts by the people and businesses of Ada County to reduce the quantities of reusable materials wasted by disposal in the Landfill. Much of the material in the waste-stream is recyclable or reusable.

Three highly successful diversion programs occur in Ada County:

- On-site recycling at the Landfill;
- Curbside recycling;
- And hazardous waste collection.

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 actually being disposed in the Landfill.

WOOD WASTE RECYCLING

Through the rate-structure at the Landfill, customers are encouraged to separate and recycle wood. 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 chipped on-site and then shipped away from the Landfill for fuel at an electricity co-generation facility, compost feedstock, 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.

Enviro-Progress, Inc., a privately owned company, 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 2005, more than 70 million pounds (over 35,280 tons) of wood was hauled (diverted) from the Landfill.

USED TIRES

Ada County believes that used tires are a valuable resource that can be recycled. For the convenience of Ada County residents, the Landfill accepts limited quantities of tires at an additional fee. Ada County ships the tires from the area for recycling into other uses.

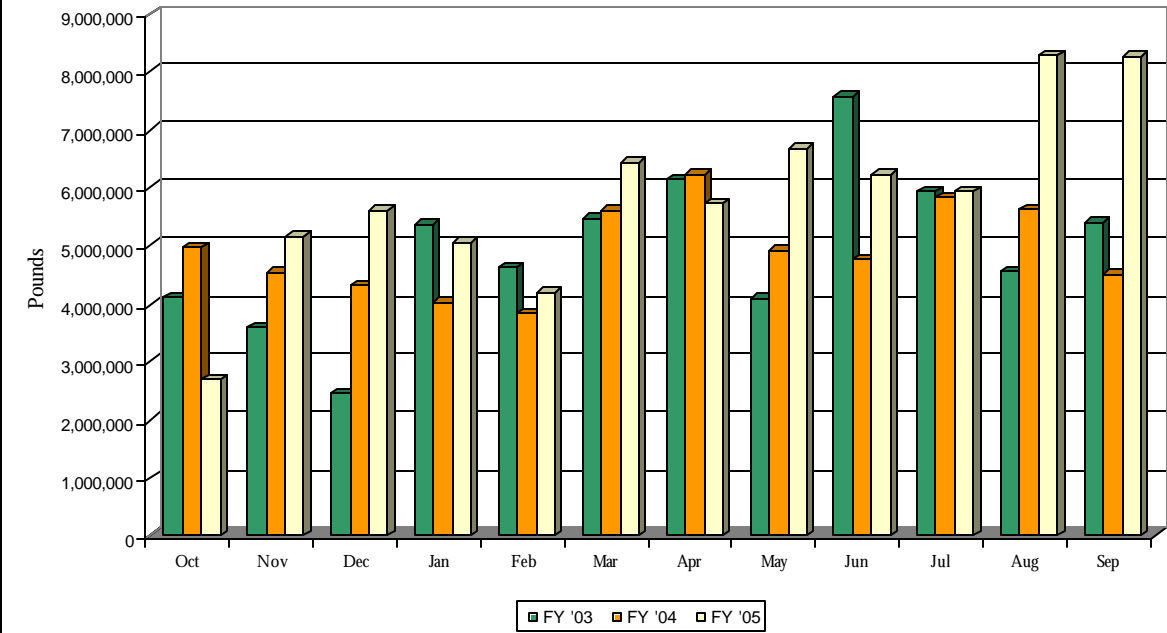
REFRIGERATION UNITS

Unlike other appliances, refrigerators, freezers and air conditioners pose particular problems at landfills. Appliances with refrigeration units contain Freon, a “greenhouse gas” regulated by the US EPA. Deliberate or inadvertent release of Freon to the atmosphere violates Federal law and is subject to prosecution and severe fines. If placed in the landfill, the refrigeration unit can release its Freon when crushed by trash compaction equipment.

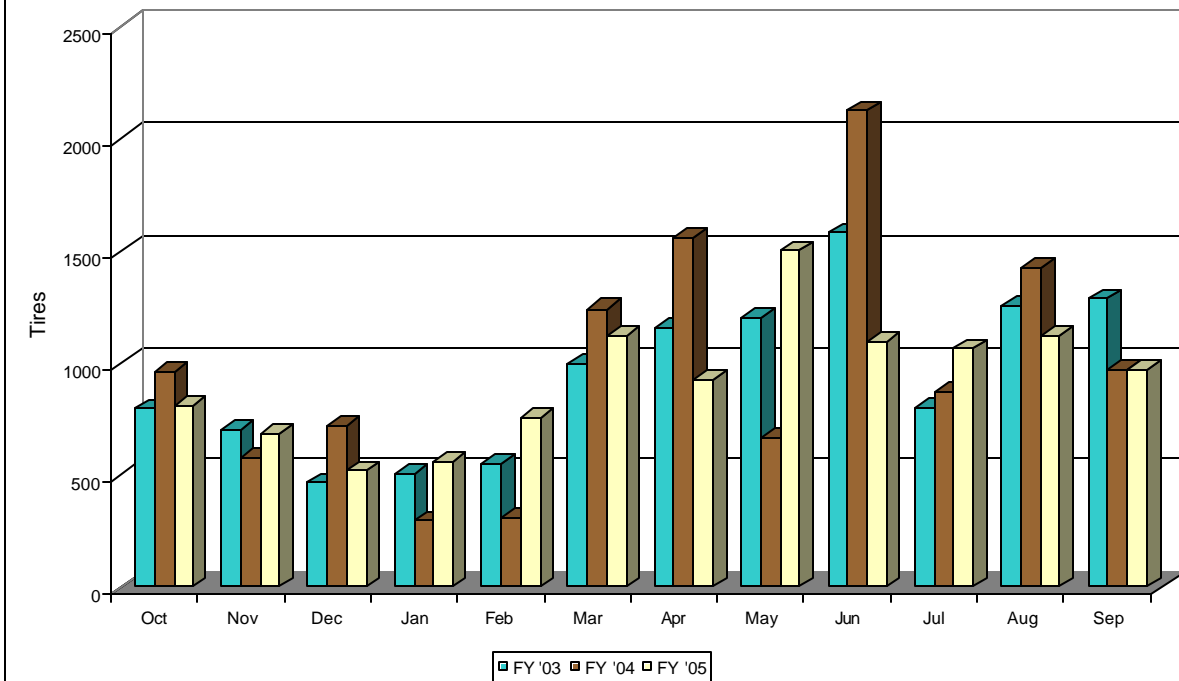
Besides Freon, the compressor motor in the refrigeration unit contains oil. Often the oil contains a known carcinogen, Poly-Chlorinated Biphenyl (PCB) and/or Chlorinated Fluorocarbons (CFC). Besides being a health risk, the oil is liquid and Federal law bans liquids from disposal in landfills. To address these issues, a privately owned firm, specializing in Freon recovery and compressor oil recovery, removes the refrigeration units from the Landfill.

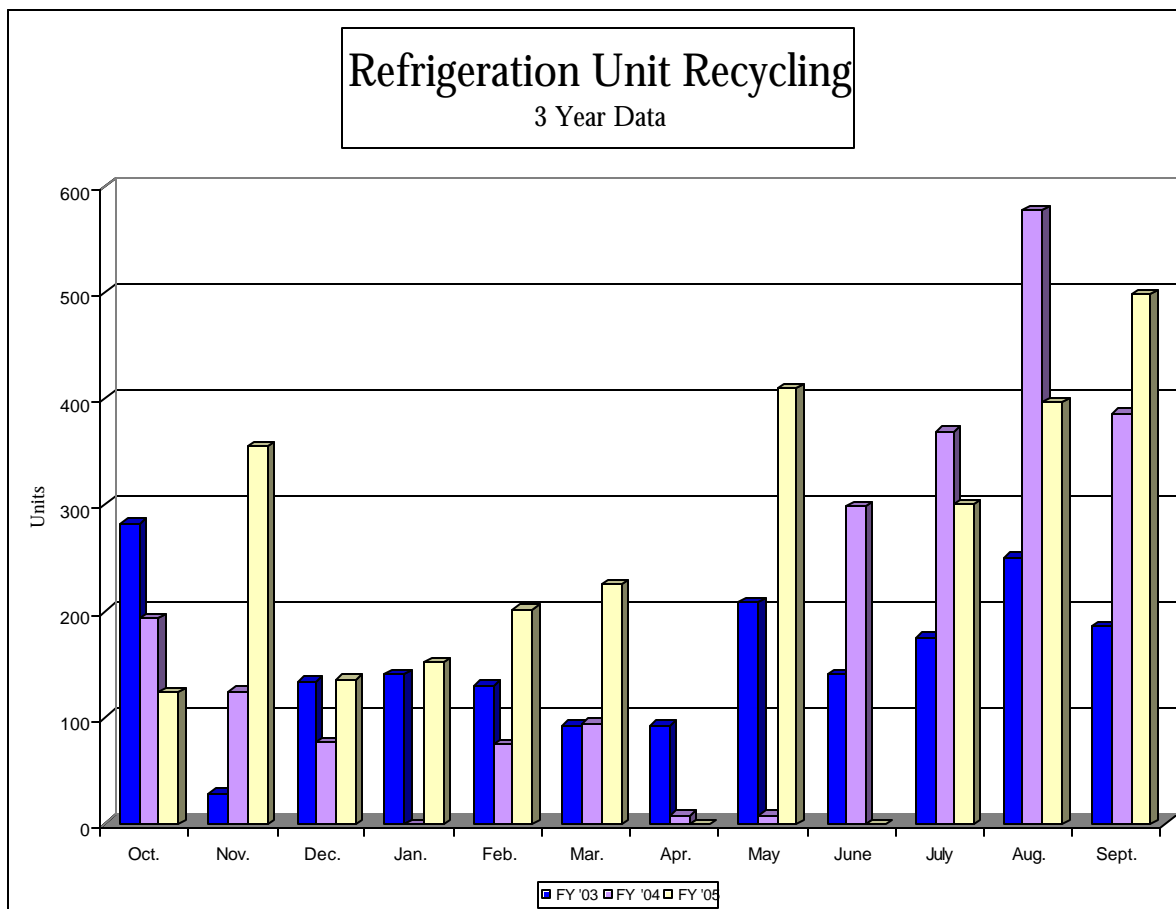
Although refrigeration units are of special concern, there is a positive side to collecting refrigeration units separately from the waste stream. Once a qualified firm removes the Freon and compressor oil, nearly 100% of the appliance is recyclable.

Wood Recycling Program 3 Year Data



Waste Tire Recycling 3 Year Data





COOPERATIVE DIVERSION PROGRAM

For several years, through a cooperative agreement between Ada County and BFI, BFI has been diverting waste to a privately owned landfill in Elmore County. Starting as a pilot program in 2001, BFI transports waste generated in the eastern portions of the County to the privately owned facility.

The purpose behind this agreement was to take some pressure off the Hidden Hollow Sanitary Landfill. The Landfill is nearing its designed capacity and diversion programs, such as this, help lengthen the time until a new landfill is required. During Fiscal Year 2005, BFI diverted over 7,000 truck loads of waste to the landfill in Elmore County.

HOUSEHOLD HAZARDOUS MATERIAL

A highly successful part of the on-site diversion/recycling efforts occurs at the Household Hazardous Materials Collection Facility. Ada County's hazardous materials contractor segregates material received in the program into basic categories. A large portion of the material is recyclable or reusable in some fashion. With the exception of the ReUse Program available at the Facility, the following materials are packaged and shipped

to disposal facilities where a majority of the materials are recycled or reused.

Based on a waste management hierarchy set by Ada County, Ada County's contractor distributes materials collected in the Program into the following categories:

- Reuse
- Recycle
- Incinerate
- Landfill

Fortunately, Ada County's hazardous materials contractor, MSE Environmental,

reuses or recycles over 91% of the material collected (based on weight) with only 9% (by weight) being incinerated off-site.

REUSE PROGRAM

At the Facility, material arriving in its original container, is at least half full, is in good condition, and is not a banned 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 1,200 customers took advantage of the ReUse Program by picking up material.

OIL-BASED PAINT

The Facility receives a large quantity of oil-based paint and other flammable liquids. Because these materials are flammable liquids, the contractor combines them for use as fuel supplement. The Facility shipped out more than 187,766 pounds of oil-based paint and flammable liquids collected in the Hazardous Materials Collection Program.

AUTOMOTIVE BATTERIES

The Hazardous Materials Management Program accepts automotive batteries. These are nearly 100% recyclable. An off-site recycling company drains the acid and removes the lead cores. After cleaning, they mix the acid with new acid for use in new batteries. They melt down the lead cores to form new cores. Finally, they take the plastic cases, crush and melt them for use in forming new battery cases. Last year, the Facility shipped more than 149,240 pounds of batteries to the battery recycler.

LATEX PAINT

Although not a hazardous material, the Program accepts latex paint. As a liquid, Federal law prohibits its disposal in landfills. There is a demand for the pigment found in latex paint. Ada County's contractor ships the paint to a facility in California where they dry the paint to recover the pigment. The California facility sells the pigment to companies that color cement with it. The Facility shipped 272,374 pounds of latex paint from the Facility last year.

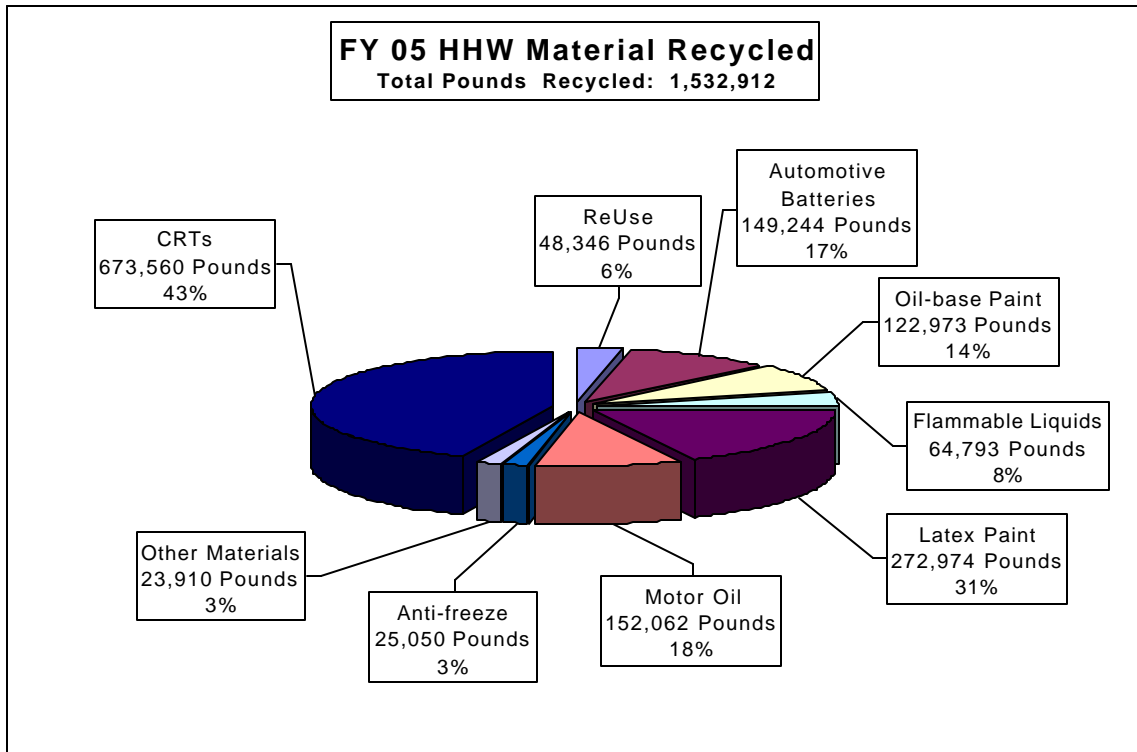
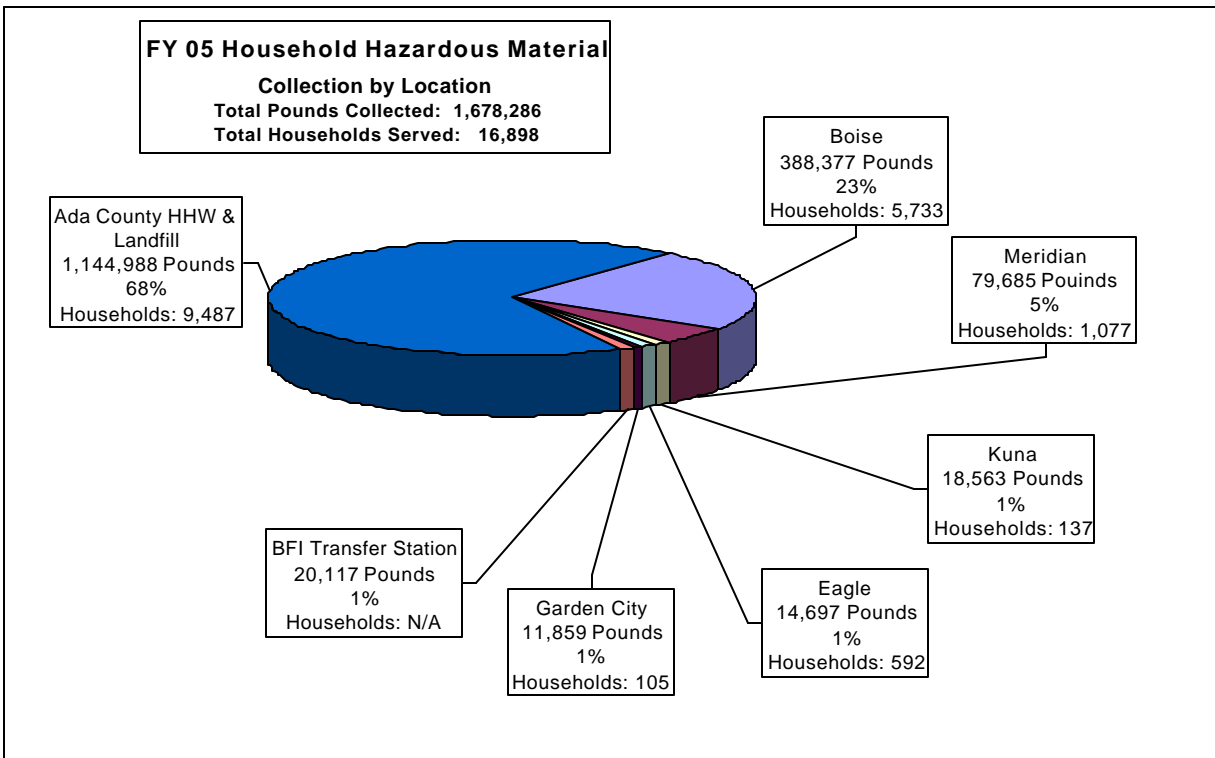
MOTOR OIL AND ANTI-FREEZE

Thermo-Fluids recycles the motor oil and anti-freeze collected in the Program. Last year, Thermo-Fluids picked up more than 152,060 pounds of motor oil and 25,050 pounds of anti-freeze.

OTHER ITEMS

The Hazardous Materials Management Program receives several other categories of material, although in lesser quantities. As with the categories listed above, these too are recycled or reused. Included in this category are CRT devices --computer monitors and televisions. The Facility shipped more than 673,500 pounds of CRT devices and 23,900 pounds of additional items.

The following charts summarize the fiscal year for the Household Hazardous Materials Collection Program.



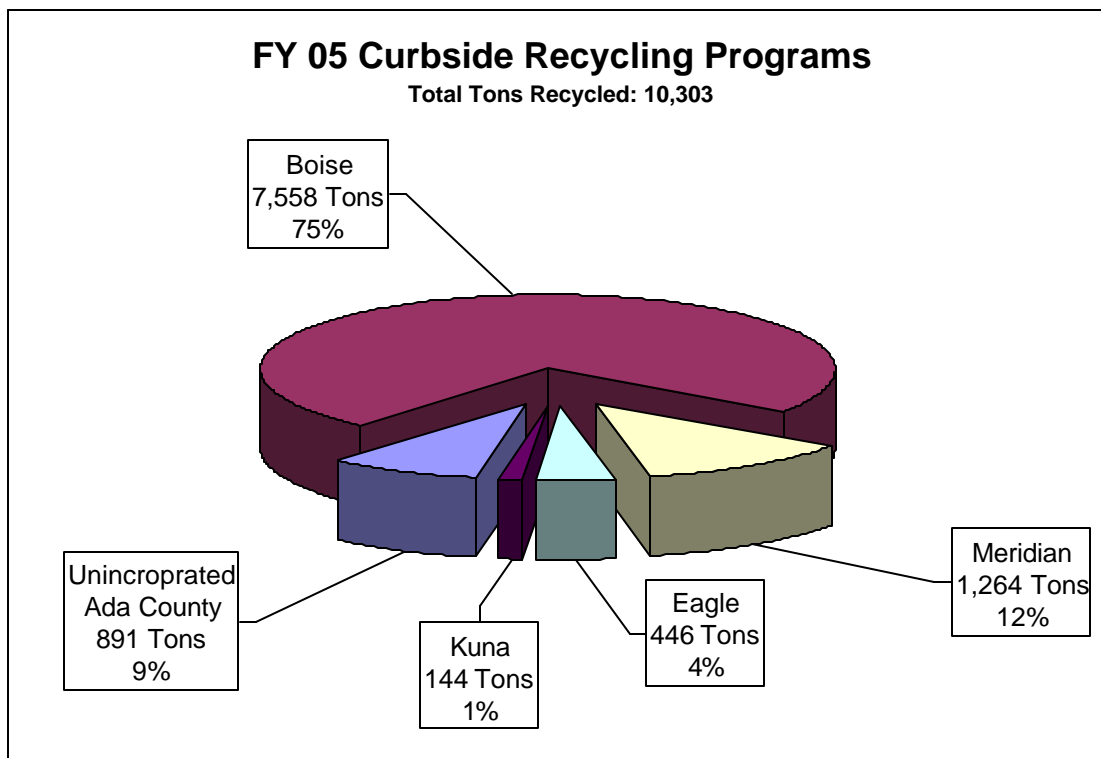
CURBSIDE RECYCLING

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 10,000 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.



APPENDICES

Appendix - A

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

Commodity	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
ONP	36.4	42.77	46.21	38.76	33.15	40.19	38.62	43.18	40.44	38.24	42.39	41.53	481.88
MWP/OCC	19.4	22.70	24.52	20.57	17.60	21.33	20.49	22.92	21.46	20.30	22.50	22.04	255.83
Plastic	4.15	5.02	5.25	4.40	3.77	4.57	4.39	4.91	4.59	4.34	4.82	4.72	54.93
Tin	1.90	2.23	2.41	2.02	1.73	2.10	2.01	2.25	2.11	2.00	2.21	2.17	25.14
Aluminum	1.22	1.27	1.55	1.30	1.11	1.35	1.15	1.29	1.21	1.14	1.26	1.24	15.09
OMG	4.42	5.12	5.59	4.69	4.01	4.86	4.67	5.23	4.89	4.63	5.13	5.03	58.27
Totals (lbs.)	67.49	79.11	85.53	71.74	61.37	74.40	71.33	79.78	74.7	70.65	78.31	76.73	891.19

ONP = Newspaper – in pounds

MWP/OCC = Recovered Paper/Cardboard Boxes

Plastic = #1, #2, #3

Tin = Steel “Tin” Cans

OMG = Magazines and Catalogs

Appendix - B

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

Commodity	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
ONP	310.2	363.54	392.78	329.43	281.80	341.58	328.23	367.06	343.70	325.07	360.31	353.00	4,096.7
MWP/OCC	164.62	192.94	208.45	174.84	149.56	181.29	174.20	194.81	182.41	172.52	191.22	187.34	2,174.2
Plastic	35.23	42.65	44.62	37.42	32.01	38.80	37.81	41.78	39.04	36.92	40.93	40.09	467.30
Tin	16.18	18.96	20.48	17.18	14.70	17.81	17.11	19.14	17.92	16.95	18.79	18.40	213.62
Aluminum	10.40	10.83	13.17	11.04	9.44	11.45	9.78	10.94	10.24	9.68	10.74	10.51	128.22
OMG	37.54	44.00	47.54	39.87	34.11	41.34	39.73	44.43	41.60	39.35	43.61	42.73	495.85
Totals	574.17	672.92	727.04	609.78	521.62	632.27	606.86	678.16	634.91	600.49	665.60	652.07	7,575.89

ONP = Newspaper

MWP/OCC = Recovered Paper/Cardboard Boxes

Plastic = #1, #2, #3

Tin = Steel "Tin" Cans

OMG = Magazines and Catalogs

Appendix - C

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

Commodity	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
ONP	18.25	21.38	23.10	19.38	16.58	20.09	19.31	21.59	20.22	19.12	21.19	20.76	240.97
MWP/OCC	9.68	11.35	12.26	10.28	8.80	10.66	10.25	11.46	10.73	10.15	11.25	11.02	127.89
Plastic	2.03	2.51	2.62	2.20	1.88	2.28	2.19	2.45	2.30	2.17	2.41	2.36	27.40
Tin	.95	1.12	1.2	1.01	.86	1.05	1.01	1.13	1.05	1.0	1.11	1.08	12.57
Aluminum	.61	.64	.77	.65	.56	.67	.58	.64	.60	.57	.63	.62	7.54
OMG	2.21	2.59	2.80	2.35	2.01	2.43	2.34	2.61	2.45	2.31	2.57	2.51	29.18
Totals	33.73	39.59	42.75	35.87	30.96	37.18	35.68	39.88	37.35	35.32	39.16	38.35	445.55

ONP = Newspaper

MWP/OCC = Recovered Paper/Cardboard Boxes

Plastic = #1, #2, #3

Tin = Steel "Tin" Cans

OMG = Magazines and Catalogs

Appendix -D

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	54.72	70.58	69.68	60.55	53.03	63.15	60.34	65.45	64.93	57.18	65.40	66.47	751.48
MWP/OCC	27.45	35.41	34.96	30.38	26.60	31.68	30.27	32.84	32.57	28.68	32.81	33.74	377.39
Plastic	5.64	7.27	7.18	6.24	5.46	6.51	6.22	6.74	6.69	5.89	6.74	6.93	77.51
Tin	2.68	3.46	3.41	2.97	2.60	3.09	2.96	3.21	3.18	2.80	3.20	3.30	36.86
Aluminum	1.48	1.91	1.88	1.64	1.43	1.71	1.63	1.77	1.76	1.55	1.77	2.39	20.92
Totals	91.97	118.63	117.11	101.78	89.12	106.14	101.42	110.01	109.13	96.10	109.92	112.83	1264.16

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

Appendix - E

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	6.55	7.62	7.97	6.23	6.99	8.31	6.54	8.43	7.80	6.87	7.22	7.39	87.92
MWP/OCC	0.73	0.85	0.89	0.69	0.78	0.93	0.73	0.94	0.87	0.77	0.80	0.82	9.80
Plastic	0.67	0.79	0.82	0.64	0.72	0.86	0.67	0.87	0.80	0.71	0.74	0.76	9.05
Tin	0.32	0.37	0.39	0.31	0.34	0.41	0.32	0.41	0.38	0.34	0.35	0.36	4.30
Aluminum	0.18	0.21	0.22	0.17	0.19	0.22	0.18	0.23	0.21	0.19	0.20	0.20	2.40
OMG	2.37	2.71	2.67	1.98	2.54	2.94	2.34	2.93	2.67	2.42	2.58	2.53	30.68
Totals	10.82	12.55	12.96	10.02	11.56	13.67	10.78	13.81	12.73	11.30	11.89	12.06	144.15

ONP = Newspaper

MWP/OCC = Recovered Paper/Cardboard Boxes

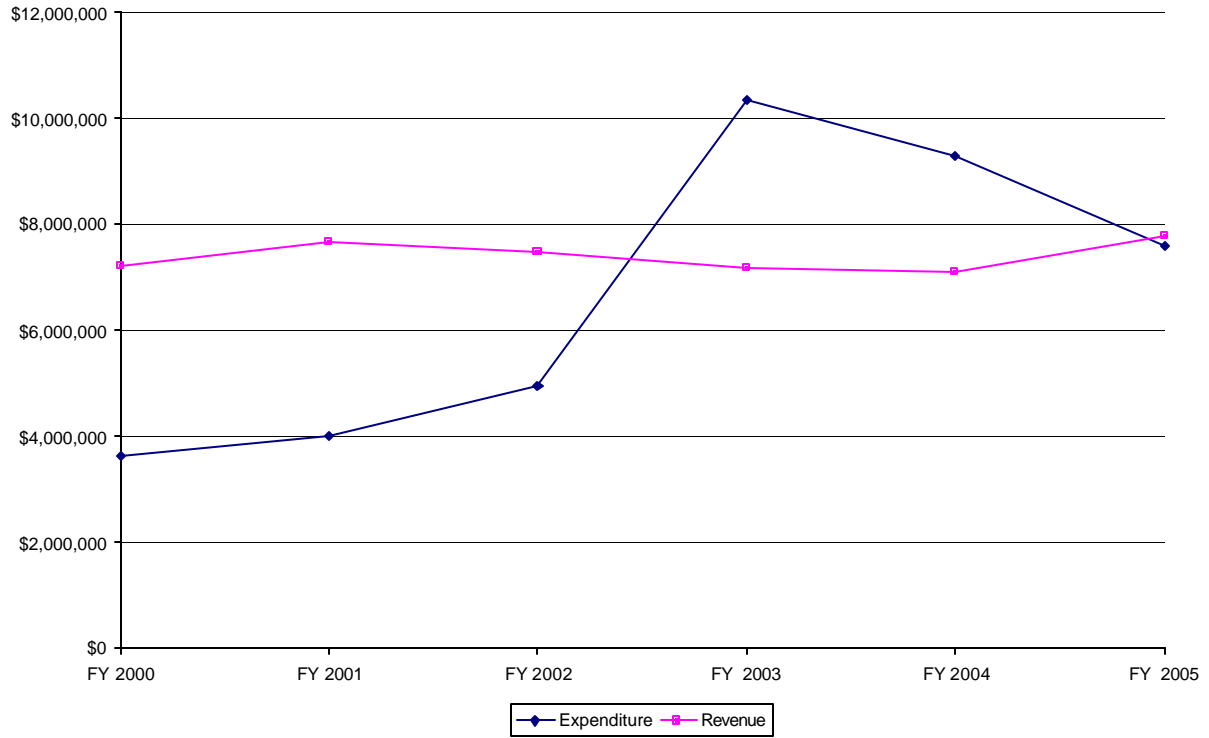
Plastic = #1, #2, #3

Tin = Steel "Tin" Cans

OMG = Magazines and Catalogs

Appendix - F

Revenue vs. Expenditure 5-year Trend



Appendix – G

Recycling at the Landfill

	Tires	Wood	Refrig	Batteries	Oil	Antifreeze	CRT
	Each	Tons	Units	Pounds	Pounds	Pounds	Each
October '04	808	1347.53	123	16,750	15400	1200	0
November '04	686	2591.33	355	13,650	8000	1000	484
December '04	524	2810.93	135	12,735	4800	700	1158
January '05	561	2528.1	152	3,000	10800	1600	964
February '05	758	2102.18	202	9,350	9200	900	2169
March '05	1121	3216.83	225	10,020	18000	3000	3269
April '05	926	2876.18	0	10,000	22800	4000	0
May '05-	1499	3346.65	409	17,598	12000	2000	1126
June '05	1096	3119.63	0	12,476	18262	3450	1066
July '05	1067	2974.05	301	8,837	15200	2000	0
August '05	1125	4146.08	396	15,817	12600	2800	4501
September '05	968	4128.75	498	19,031	7200	2400	1428
TOTALS	11,139	35,188	1601	149,264	154,262	25,050	16165

	a		b				c
TONS	167.09	35,188	120.08	74.63	77.13	12.53	323.3

TOTAL TONS RECYCLED	35,963
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- a. Tires @ ... 30# ea
- b. Refrigeration Units @ ... 150# ea
- c. CRT @ ... 40#ea

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.

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Judy Peavey-Derr, Commissioner
Fred Tilman, Commissioner

THE SOLID WASTE MANAGEMENT DEPARTMENT STAFF

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