

Ada County

Solid Waste Management Department



Year End Report Fiscal Year 2002

DECEMBER 2002

Board of Ada County Commissioners

Grant P. Kingsford, Chairman
Sharon M. Ullman, First District
Roger D. Simmons, Second District

Solid Waste Management Department

Dave Neal, Director
Rene Phillips, Health Protection Officer
Ted Hutchinson, Solid Waste Planner
Ken Wall, Hazardous Material Coordinator
Billie Starks, Account Clerk
Jim Krossschell, Account Clerk
Joey Smith, Maintenance Mechanic
Brad Noble, Maintenance Mechanic
Judy Roell, Cashier
Kathy Claman, Cashier
R.B. Nooner, Cashier
Barbara Burkhardt, Cashier
Jolie Rosenfield, Cashier

City Mayors

| | |
|---------------------|----------------|
| City of Boise | Brent Coles |
| City of Garden City | Ted Ellis |
| City of Meridian | Robert Corrie |
| City of Eagle | Rick Yzaguirre |
| City of Kuna | W.G. Nelson |
| City of Star | Gail Glasgow |

Table of Contents

EXECUTIVE SUMMARY..... 1

SOLID WASTE MANAGEMENT DEPARTMENT 3

 Department Mission.....3

 Divisions and Staffing.....3

 Solid Waste Division.....3

 The Staff.....4

 Operation and Maintenance.....6

 Burn Permits.....7

 Accounting.....7

 Contract Oversight.....9

 Landfill Operation Contract.....10

 Waste Screening Contract.....10

 Wood Waste Recycling Contract.....11

 Hazardous Waste Contract.....11

 Waste Collection Contract.....12

 Hazardous Waste Division.....12

 Hazardous Material Management.....12

 Computer Monitors and Televisions.....13

 Mobile Collection Events.....13

 City of Boise.....13

 City of Meridian.....13

 City of Kuna.....14

 Garden City.....14

 Collected Material.....14

 Environmental Division.....14

 Groundwater Monitoring.....15

 Surface Water Monitoring.....15

 Air Quality.....15

DIVERSION PROGRAMS..... 15

 Landfill Recycling Programs.....15

 Wood Waste Recycling.....15

 Used Tires.....16

 Refrigeration Units.....18

 Household Hazardous Material.....19

 ReUse Program.....19

 Oil Based Paint.....19

 Automotive Batteries.....19

 Motor Oil.....19

 Latex Paint.....19

 Other Items.....19

 Curbside Recycling.....21

OUT OF THE ORDINARY..... 22

New Contracts and Projects.....22
 Road Reconstruction.....22
 Hidden Hollow Landfill Closure22
 New Solid Waste Landfill Disposal Facility23
 Community Action.....23
 Waste Diversion - Pilot Project.....23
THE FUTURE 24
IN MEMORIAM..... 24
APPENDICES.....25

Executive Summary

Fiscal Year 2002 (October 1, 2001 through September 30, 2002) was an active year for the Solid Waste Management Department. This report describes the department's activities and accomplishments and details the progress of the Solid Waste Management Department.

Many of the department's activities are day-to-day: landfill operation, household hazardous material management and recycling endeavors. Also, within this mix, is the commotion of planning for future needs, such as landfill closure, landfill gas control system installation, and solid waste disposal options. Besides the on-going bustle, the department saw completion of a major project - the reconstruction of the main landfill access road.

With closure of the Hidden Hollow Sanitary Landfill within sight, the County issued requests for statements of qualifications for engineering services for two major projects. The first project is the design of the final closure plan for Hidden Hollow. The second is the engineering services for a new municipal solid waste disposal facility. Both contracts awarded in response to the request for statements of qualifications were issued to CH2M Hill.

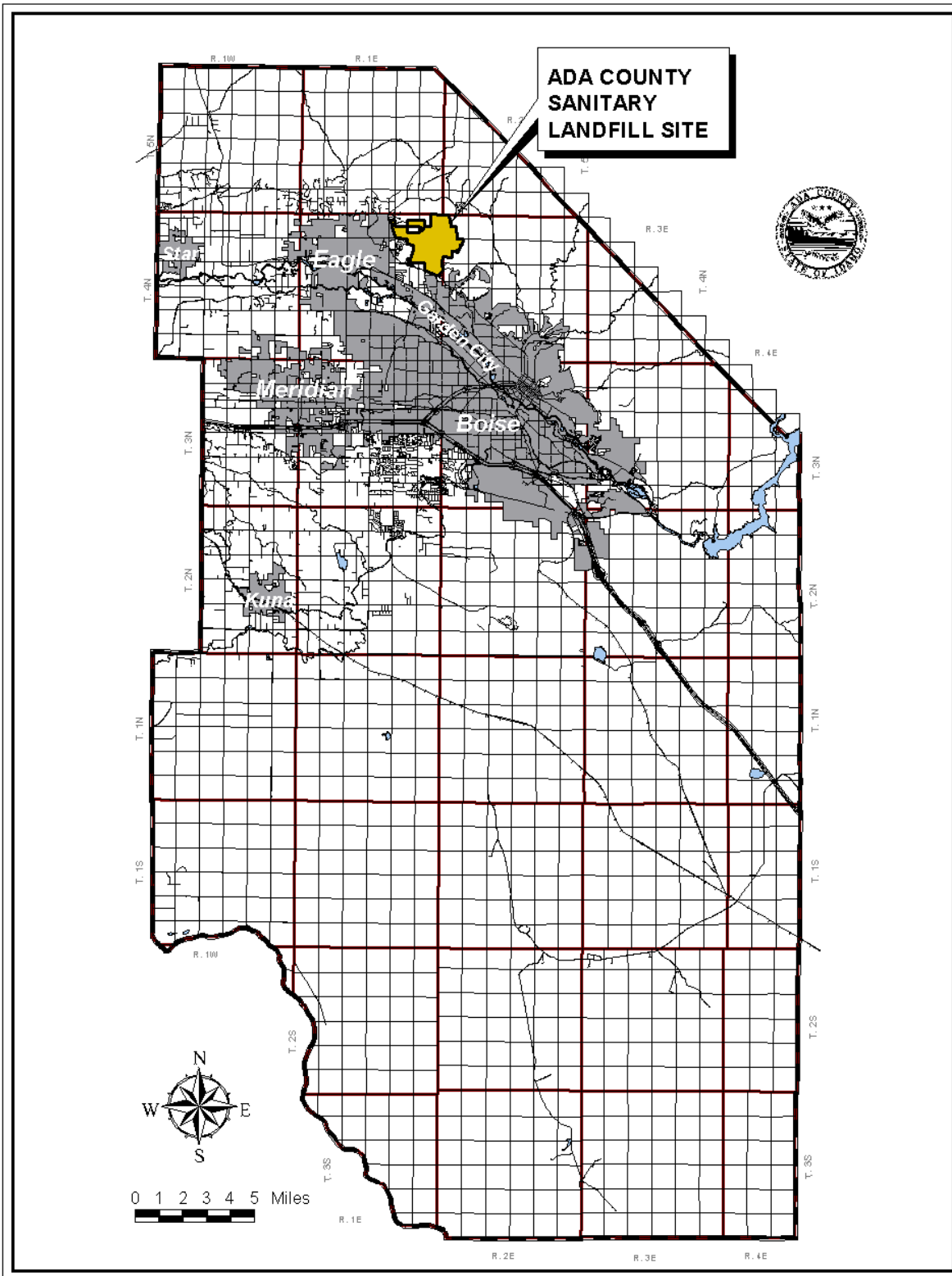
As an Ada County Enterprise Fund, no tax dollars support the Solid Waste Management Department in its operation or expenses. The department relies solely on revenue from gate receipts. Besides meeting daily operation requirements, the department revenue must also be sufficient to meet long-term obligations and future needs. Current operating expenses, long-term obligations and

future needs are weighed against the fees charged at the gate. Through careful fiscal management, Ada County enjoys some of the lowest tipping fees in the State.

This year, Ada County and the City of Boise teamed with the County's hazardous material contractor, MSE Environmental, to get a handle on electronics waste. Because computer monitors and televisions contain a considerable amount of lead, it is inappropriate to dispose these items in the landfill. Management of this segment of the waste stream began with a collection event in May. This event allowed residents in Ada County to dispose of their old monitors and television sets at no charge. Following the event, the County established a disposal fee collected at the Landfill. Ada County ships electronics collected in this program to a de-manufacturing/recycling facility in Utah.

Maximizing remaining landfill space remains a priority for the Solid Waste Management Department. To aid the efforts, the department promotes several recycling and waste diversion programs at the landfill. Wood waste recycling continues to reign as the most popular and productive recycling program. The County's wood waste contractor chipped and shipped more than 26,700 tons (53,520,000 pounds) of wood waste from the landfill for other uses.

Day-to-day operation with an eye to the future best describes the department's approach to Fiscal Year 2001 - 2002. The Solid Waste Management Department strives to meet the dynamic changes and challenges of solid waste management for the people of Ada County.



ADA COUNTY'S SOLID WASTE MANAGEMENT DEPARTMENT

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.

DIVISIONS AND STAFFING

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 Board. Besides daily operation, the Director oversees the waste collection contract, and he meets with the Ada County Treasurer to recommend contractual adjustments to the Board.

To accomplish the responsibilities, goals, and mission of the Solid Waste Management Department, 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 objective of environmentally sound management of the municipal solid waste generated in Ada County. Following is a description of the divisions and including staffing for each.

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, two Maintenance Mechanics, and five part-time Cashiers. These employees:

- Operate and maintain the Landfill;
- Enforce Ada County codes relating to human health, waste accumulation, unlawful waste disposal, uncovered or unsecured loads, and littering;
- Issue burn permits for locales outside fire districts;
- Collect landfill tipping fees;
- Account for department receipts and expenditures;

- Oversee contracts for waste collection, landfill operation, wood waste recycling, and solid waste screening;
- Provide public education and outreach programs about solid and hazardous waste disposal, recycling, and waste reduction.

THE STAFF

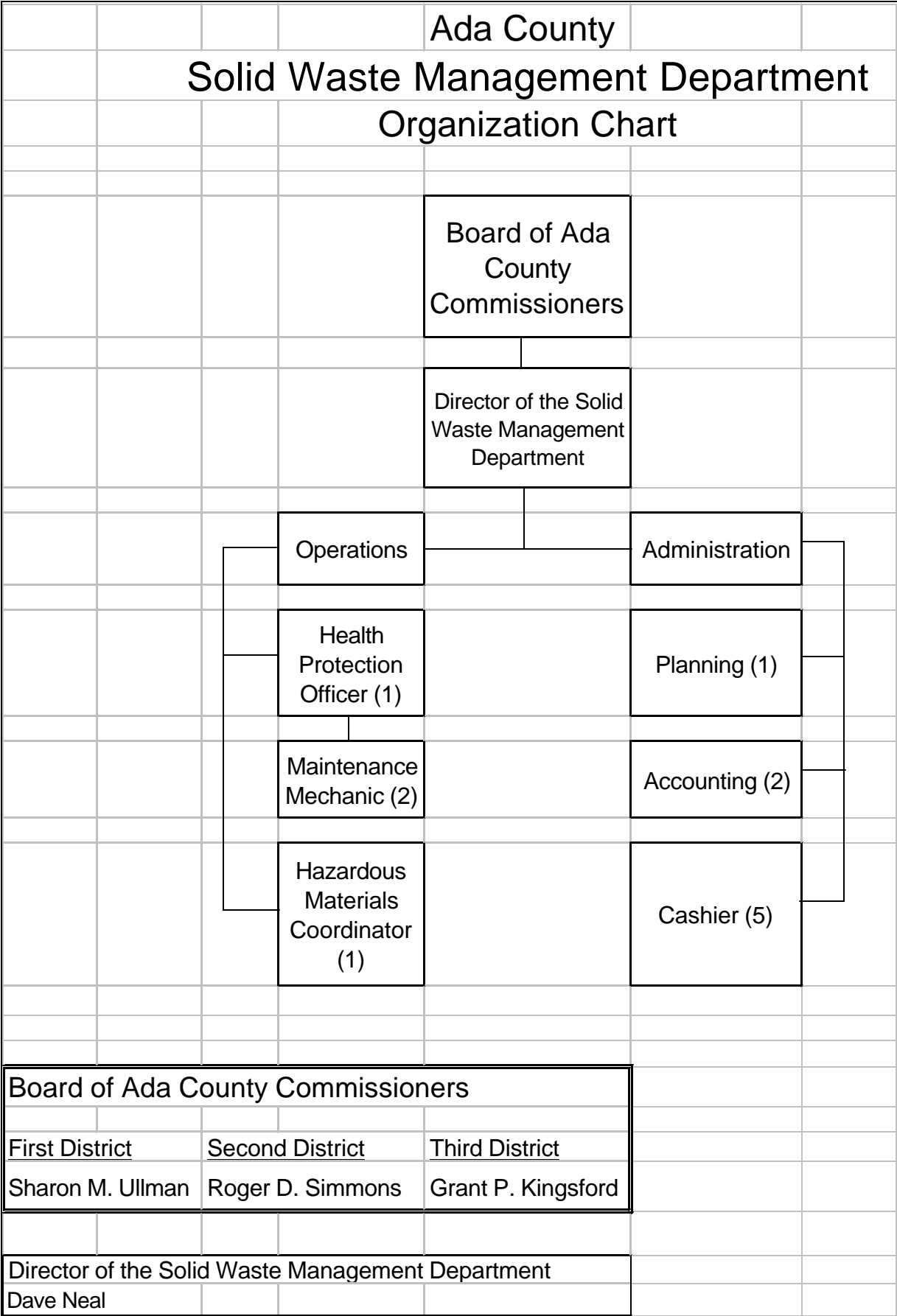
The Health Protection Officer (HPO) is a sworn deputy for the Ada County Sheriff who works for the Solid Waste Management Department. The HPO enforces, by vehicular patrol and visual inspection, County ordinances and federal laws relating to solid waste, hazardous waste, and air pollution. With jurisdiction 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.

Maintenance Mechanics perform a variety of tasks in the maintenance of buildings and grounds and maintenance of automobiles and small engines.

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



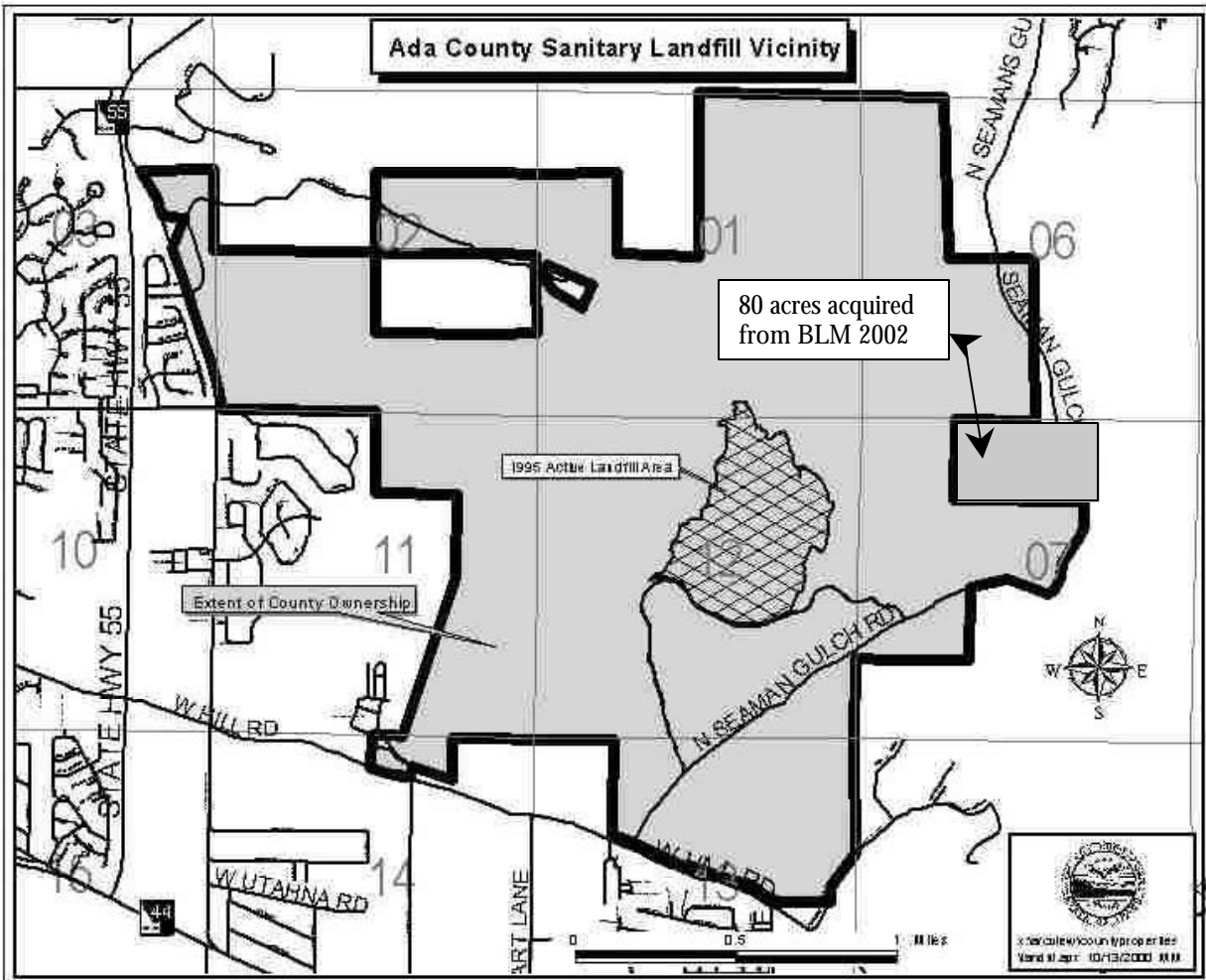


Figure 1 - Ada County Landfill Property

OPERATION AND MAINTENANCE

Ada County owns about 2,500 acres of land in the foothills northwest of the City of Boise. The main entrance to the Landfill is on Seaman's Gulch Road about 1½ mile north of Hill Road Parkway. Ada County acquired the land over a number of years. The Landfill sits on roughly 150 acres near the center of the property.

Several buildings are located on the landfill property, including the department's office, maintenance shop, hazardous material collection facility, cashiers' booths, and three large storage buildings. The property is fenced with nearly 12 miles of barbwire fence.

Wind-blown litter is a constant problem for landfills. The Hidden Hollow Sanitary Landfill is no exception. Under the direction of department maintenance mechanics and temporary employees, inmates from the Ada County Sheriff's Inmate Labor Detail (S.I.L.D.) Program (an alternative sentencing program) perform litter gathering and other maintenance projects on the landfill property. Use of inmates from the S.I.L.D. program saves the department thousands of dollars each year in labor costs (FY 2002 - approximate savings of \$120,000.00).

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. Burn permits are issued for weed control, field burning, maintenance of irrigation ditches, or removal of tree limbs and brush. A burn permit is issued only if another practical method of disposal is 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 2002 saw more than 184,300 customers pass through the landfill gate. This represents an increase of 2.6% over last fiscal year.

The department's Account Clerks manage and track the monthly balances of more than 450 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 expended for operation of the department, careful revenue and expenditure estimates have been calculated by the department to ensure that not only the operating

budget is met, but that sufficient money is being saved by the department to meet long-term financial obligations required by Federal regulation.

Department expenditures cover the wide variety of activities associated with operating a large landfill. Contractors are doing much of the work at the landfill. Ada County has contracts for landfill operation (burying the waste, daily cover), wood recycling, hazardous waste management, and waste screening. These contracts amount to 51%, or \$2,430,350, of the department's total expenditures. The balance covers payroll, capital expenditures, operations and miscellaneous expenses. Figure 3 shows a breakdown of the department expenditures.

If department revenue exceeds department expenditures, as it did this year, the difference goes into an interest-bearing account for long-term financial obligations Ada County has from operating a solid waste disposal facility. These obligations include closure, post-closure, and long-term care of the Landfill.

The Operating Plan for the Hidden Hollow Sanitary Landfill, a plan required by Federal regulation, contains the Landfill closure plan. Because a portion of the Landfill has reached its designed capacity, Ada County starts the first stages of Landfill closure in January 2003. Closure, post-closure, and long-term care are discussed in a later section of this report.



Figure 2 - Hidden Hollow Landfill Gate

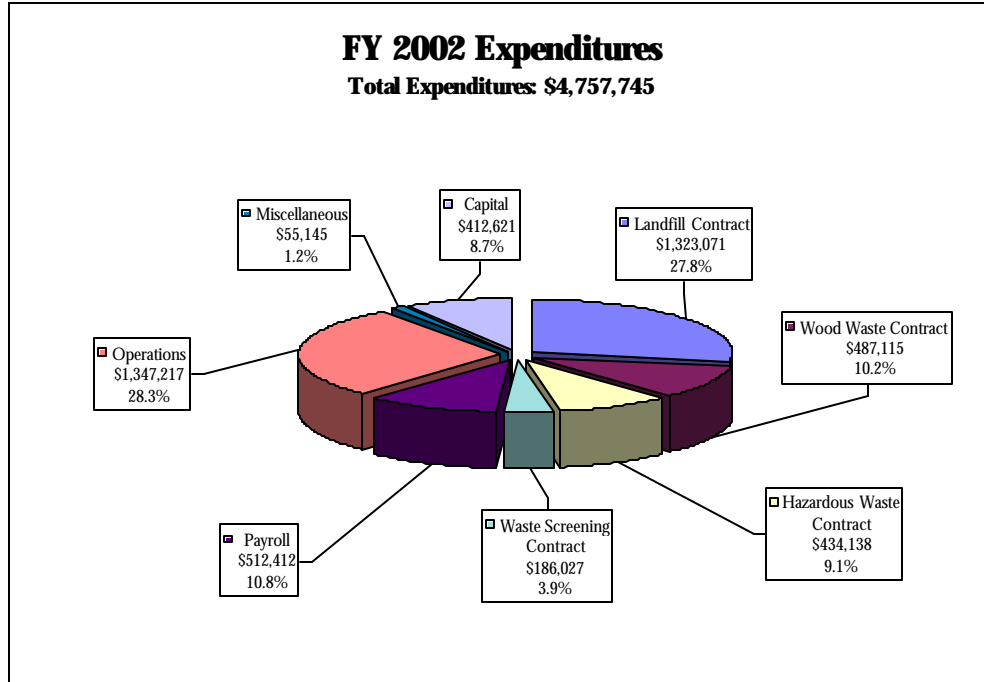


Figure 3 - FY 2002 Expenditures

Department revenue comes from a variety of sources. Tipping fees paid at the Landfill gate account for most of the department's revenue. About 85 %, or \$6,415,436, comes from the customers (cash and charge). The

remaining 15%, or \$1,053,351, comes from investment interest on funds held in reserve to meet long-term financial obligations. Figure 4 details the department revenue by source.

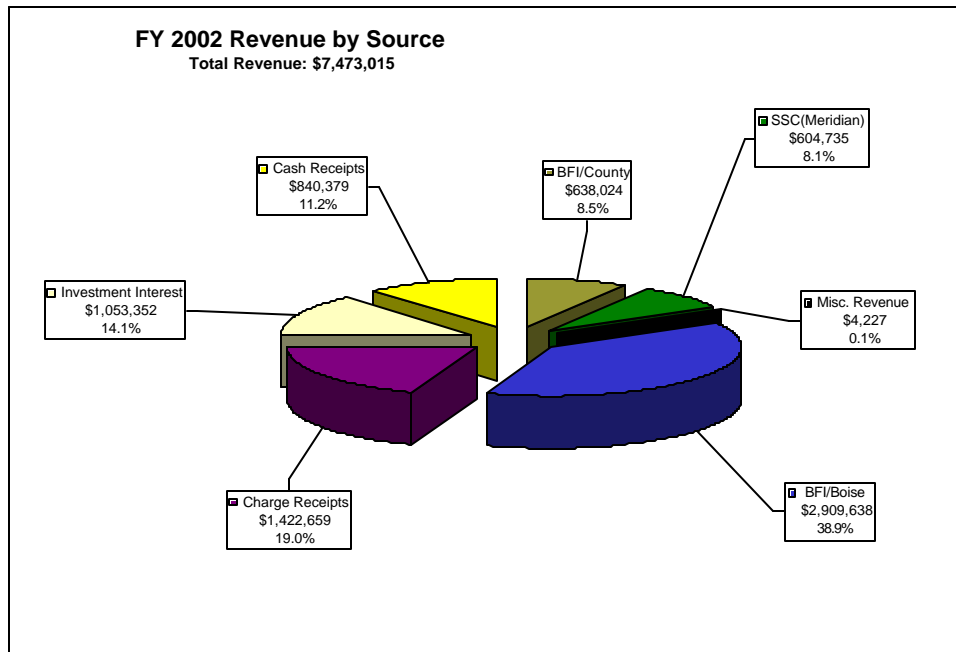


Figure 4 - FY 2002 Revenue

As mentioned earlier, over 184,300 customers passed through the landfill gate. Charge customers amounted to 40% (74,461) of this total (see Figure 5). This 40% of the total customers accounted for 75% of the total revenue. Cash-paying customers (60% or

109,871) paid only 11% of the department's total revenue (see Figure 4). The impact of these numbers becomes clear when examining long-range plans for solid waste management in Ada County.

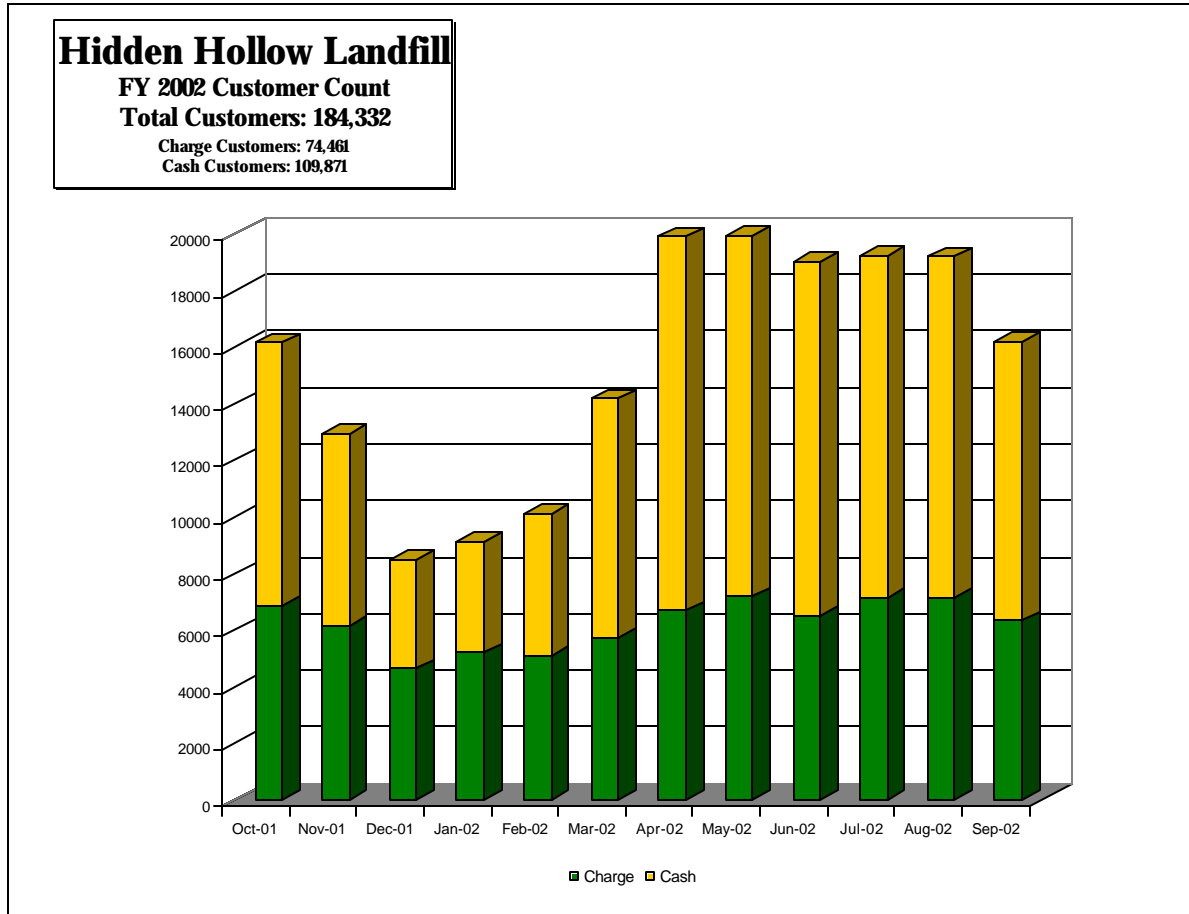


Figure 5 - FY 2002 Customer Count

The customer count becomes important as the Landfill approaches its designed capacity. The working area of the Landfill, that area where daily trash volumes are deposited, gets smaller and smaller with each passing day. At some point, the working area will become too small to safely accommodate the landfill customers. To address this situation, Ada County will have a new disposal option in place before the working area reaches a critical situation.

Contract Oversight

When one examines Figure 3, Expenditures, it becomes apparent that the Solid Waste Management Department's largest expense category is contracts. Most of the work being done at the Landfill is through contracts between Ada County and privately owned companies specializing in the areas of landfill operation, wood recycling, hazardous material management and waste screening. Besides these four, on-site, contracts, the department shares oversight of the waste

collection contract with the Ada County Treasurer.

By contracting for services, Ada County does not bear the costs for purchase of highly specialized, expensive equipment nor does it bear personnel costs.

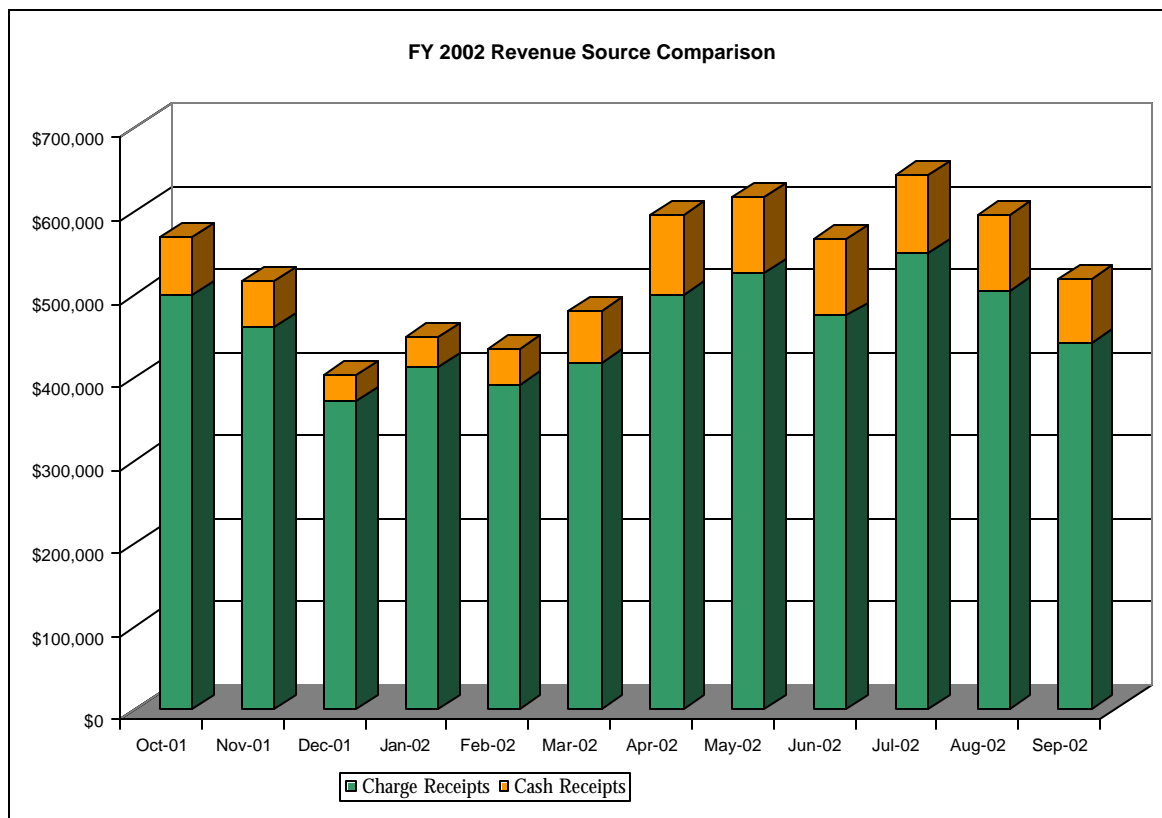


Figure 6 - FY 2002 Revenue Cash v. Charge Customers

LANDFILL OPERATION CONTRACT

Under the direct and general oversight of the Solid Waste Management Department, Environmental Earthworks, Inc., operates the landfill according to “best practices” in the solid waste management field. This includes waste compaction, daily cover application, access road construction and maintenance, and control of storm water run-on/run-off. Environmental Earthworks, Inc., is responsible for its personnel, supplies, and equipment needed to meet the requirements of the contract. The landfill contractor also assists with fire suppression activities.

WASTE SCREENING CONTRACT

Federal law requires landfills to randomly examine, or screen, waste loads entering the landfill. The procedure is to ensure that prohibited or inappropriate waste is kept from disposal in the landfill. To comply with this requirement, Ada County contracts with Environmental Earthworks, Inc., for waste screening services.

Under the terms of the contract, Environmental Earthworks, Inc., provides trained personnel who interview Landfill users, examine waste loads, and remove inappropriate waste. Inappropriate wastes are directed to the Ada County Household Hazardous Material Collection Facility. Waste

screeners also provide traffic control and direction at the Landfill disposal area.

WOOD WASTE RECYCLING CONTRACT

Enviro-Progress, Inc., provides wood waste recycling at the Landfill. This company chips wood material and ships from the Landfill for use as fuel in an electricity co-generation facility, in composting, and in

landscaping. Enviro-Progress, Inc., also grinds leaves and Christmas trees that are delivered to the Landfill. The ground leaves are composted on-site for use in soil amendment projects at the Landfill. Christmas trees that are ground up are incorporated into the chip stocks that Enviro-Progress, Inc., ships off for various uses.



Figure 7 - Christmas Trees

HAZARDOUS WASTE CONTRACT

Since 1998, Ada County has operated a Household Hazardous Material Collection Facility at the Landfill. Through a contract with MSE Environmental, household quantities of hazardous wastes have been kept from disposal in the Landfill. MSE Environmental has managed the hazardous waste stream at the facility and from the mobile collection programs in the cities of Boise, Meridian, and Kuna.

Later in this report are details of the program and operation of the collection facility.

WASTE COLLECTION CONTRACT

Waste collection in the unincorporated area of Ada County is governed by a contract with BFI Waste Services. Presently, the contract provides service to about 11,000 households and 1,000 businesses. The Solid Waste Management Department, with the Ada County Treasurer, oversee the waste collection efforts of the contractor, including curbside recycling, customer billing, and contractor performance. Periodically, the Ada County Treasurer and/or the Solid Waste Management Department recommend to the Board of Ada County Commissioners contractual adjustments in areas such as rates or levels of service.

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 to for use as a mobile collection site. Boise's very successful program has been copied, to a lesser extent, by the City of Meridian and by the City of Kuna.



Figure 8 - Ada County's Household Hazardous Material 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 to the Facility at no charge. Conditionally exempt small quantity generators (C.E.S.Q.G.) 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 2002, more than 12,600 households were served by the collection program.

COMPUTER MONITORS AND TELEVISIONS

GETTING AHEAD OF THE CURVE

Technology changes quickly. Today's modern computer is tomorrow's paperweight. With rapid changes and obsolescence of electronics, Ada County, with the support and cooperation of the City of Boise, disposes computer monitors and television sets through the Household Hazardous Material Management Program

Monitors and television sets, and other electronic devices containing a cathode ray tube, have up to eight pounds (8#) of lead in them. When the glass of the cathode ray tube is broken, the lead becomes leachable and is 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 cathode ray tubes in the Landfill. The disposal option is management through the Program.

In May 2002, Ada County and Boise City held a Household Electronics Waste Collection Event. During this event, residents of Ada County brought their old televisions, printers, scanners, computers, monitors and cell phones to the Western Idaho Fairgrounds. For three days, disposal of these items was at no charge.

The event collected 2,141 cathode ray tube devices and more than 50,000 pounds of other electronics waste. In all, 103,540 pounds of material headed to a recycling/reuse facility in Utah.



Figure 9 - CRTs awaiting shipment to nxtcycle™ recycle/reuse center in Utah.

In addition to the 2,141 cathode ray tube devices collected during the event, the Household Hazardous Material Collection Program received 1,084 additional units at the Landfill and at the mobile collection sites. For the fiscal year, the Program sent 3,225 cathode ray tubes for reuse or recycling.

MOBILE COLLECTION AND EVENTS

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 residence. Boise City purchased a van and equipped it for use as a mobile collection vehicle. Each week, the City visits one of six (6) sites around the City. More than 2,886 city households took advantage of the collection sites in this last fiscal year. This number is a significant drop from last year, due, in part, to last year's Mercury Fever Thermometer Exchange Program.

CITY OF MERIDIAN

Revenue from commodities collected in the curbside recycling program pays for the City of Meridian's household hazardous material collection. One day 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 440 households took advantage of the Meridian collection site.

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 design 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. Last fiscal year, nearly 300 households participated in the household hazardous material collection day.

J&M Sanitation added a collection day in the fall for collection of household hazardous material. Later, this report states the collection numbers for the City of Kuna.

GARDEN CITY

In June 2002, the city of Garden City joined the Household Hazardous Material Collection Program. On the second Tuesday of each month, residents of Garden City may take their household hazardous material to the North Ada County Fire and Rescue station on Glenwood from noon until 7 P.M. As with the other mobile programs, Ada County accepts the material collected at the Garden City site.

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 804,937 pounds of material.

MSE Environmental segregates into the material into following categories:

- ReUse Program
- 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 701,734 pounds (87.2%) recycled/reused, with 103,203 pounds (12.8%) destroyed by incineration.

ENVIRONMENTAL DIVISION

Responsibility for monitoring conditions in, on, under, and around 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 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.

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. Following are descriptions of these diversion efforts.

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. Any wood, whether in a processed form or in its natural state is taken in the Wood Waste Recycling Program. 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, or landscaping. Through this diversion program, wood, which would take up considerable space in the Landfill, is recovered for use rather than lost to disposal.

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. By the end of Fiscal Year 2002, more than 53 million pounds (over 26,700 tons) of wood was hauled from the Landfill.

USED TIRES

Idaho state law prohibits disposal of tires (or parts of tires) in landfills. For the convenience of Ada County residents, the Landfill accepts limited quantities of tires at an additional fee. The tires are shipped from the area for recycling into other uses. Figure 11 shows a comparison in the number of tires recycled from the Landfill for the past 2 years.

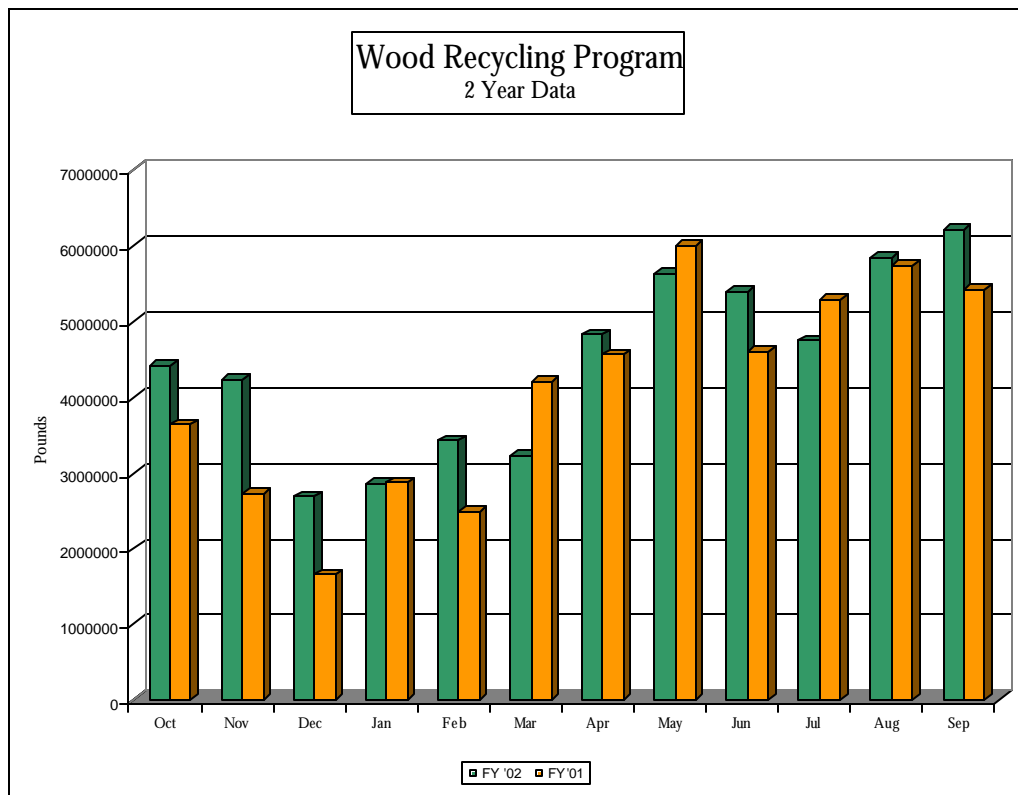


Figure 10 - Wood Recycling: FY 2002 - 53,519,400 pounds

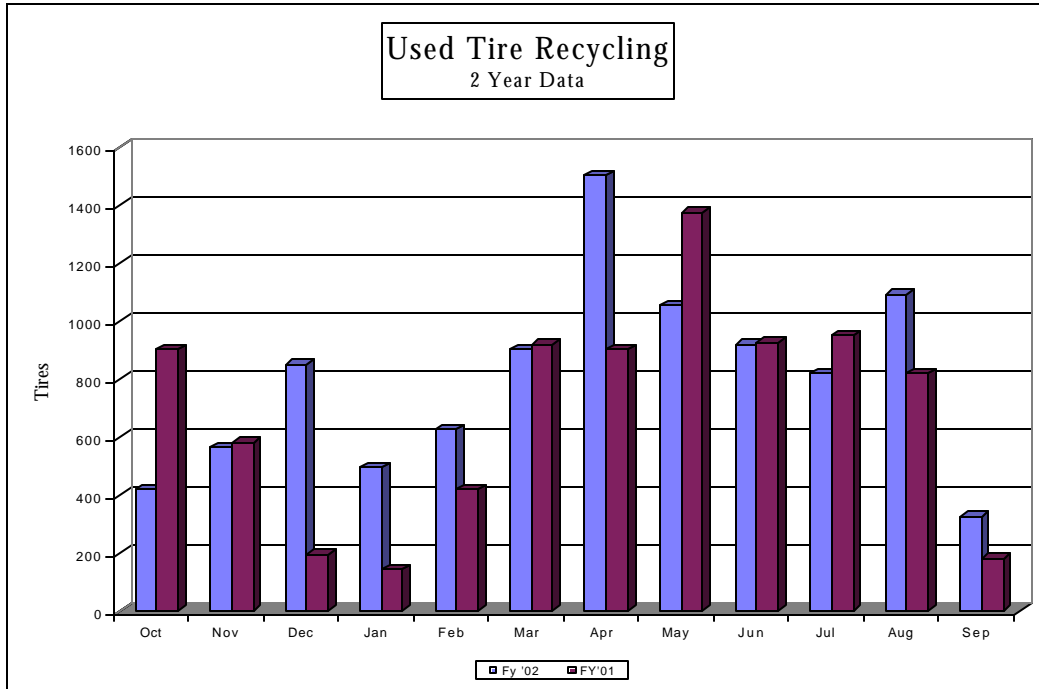


Figure 11 - Recycled Tires FY '02 - 288,109 pounds

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 a refrigeration unit is placed in the landfill, the Freon can be released when the unit is 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 Bipheny (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 the Freon and compressor oil have been removed, nearly 100% of the appliance is recyclable.

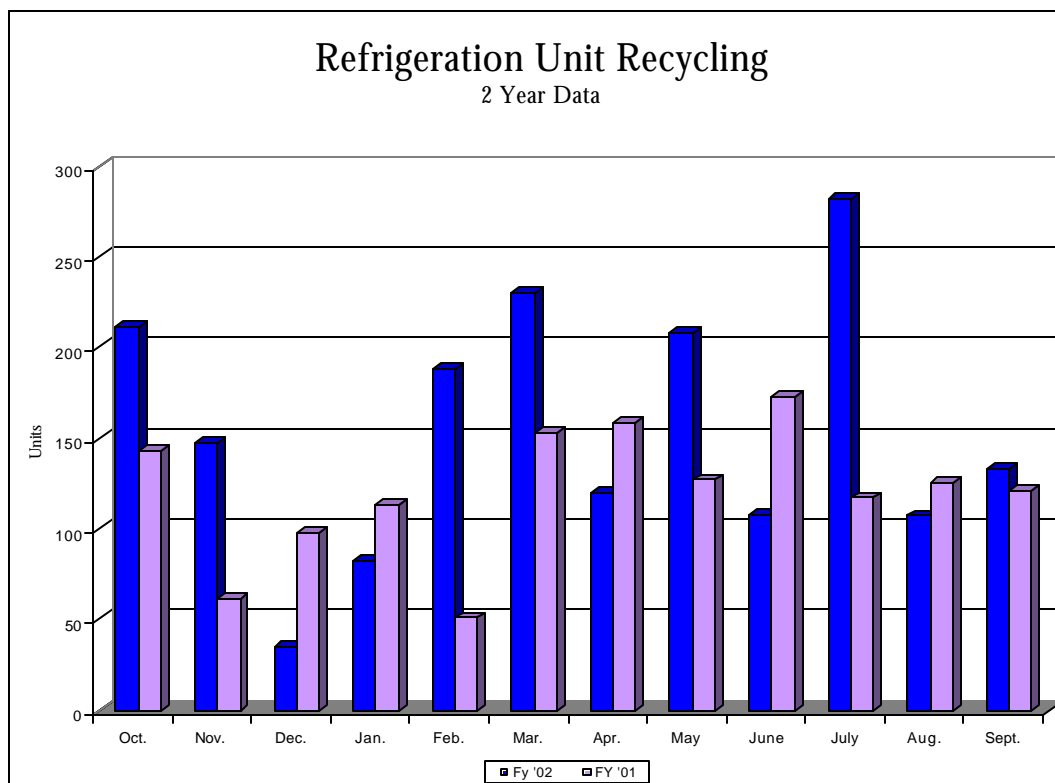


Figure 12 - Recycled Refrigeration Units (FY 02 - 1,851 units)

HOUSEHOLD HAZARDOUS MATERIAL

Part of the on-site Landfill recycling efforts occurs at the Household Hazardous Material Collection Facility. Ada County's Hazardous Material Contractor segregates the material received in the program into categories. A large portion of the material is recyclable or reusable in one fashion or another. With the exception of the ReUse Program that is available at the Facility, the following materials are packaged and shipped to disposal facilities where the material is recycled or reused.

REUSE PROGRAM

At the Facility, material that arrives in its original container, is at least half full, and is in good condition is placed on shelves in the Facility and offered to the public free of charge. Ada County would rather see this material used up than disposed. People taking advantage of the program used more than 22,000 pounds of material.

OIL-BASED PAINT

The largest single category of material received at the Facility is oil-based paint and stain. Because this material is flammable, the County's Hazardous Materials Contractor combines it with other flammable liquids for use as a fuel supplement. The Facility shipped more than 130,000 pounds of oil-based paint collected at the Facility.

AUTOMOTIVE BATTERIES

Automotive batteries are nearly 100% recyclable. The acid is drained from the batteries and the lead core removed. After cleaning, the acid is mixed with new acid for use in a new battery. The lead core is melted down and used to form new lead cores. The plastic case is crushed and melted down. It is then used to make new battery cases. Last fiscal year, 148,000 pounds of automotive batteries were collected at the Facility.

MOTOR OIL

Motor oil collected at the Facility is picked up by Environmental Oil, Inc. in Nampa, Idaho. This company re-refines the motor oil into oil, diesel or bunker fuel. More than 137,000 pounds of motor oil was sent to the refinery.

LATEX PAINT

Although not technically a hazardous material, latex paint is collected at the Facility. As a liquid, Federal law prohibits its disposal in landfills. The pigment is not hazardous or dangerous. There is, however, a demand for the pigment found in the latex paint. Ada County's Hazardous Material Contractor ships the paint to a facility in California. The paint is dried to recover the pigment that is then used to color cement. 154,000 pounds of latex paint was shipped out of Ada County in the last fiscal year.

OTHER ITEMS

Several other categories of material are collected at the Facility, albeit in lesser quantities. As with the categories listed above, these too are recycled or reused. Included are flammable liquids, antifreeze, and other materials. These amounted to 108,408 pounds of material recycled through the Facility.

The following charts summarize the fiscal year at the Facility.

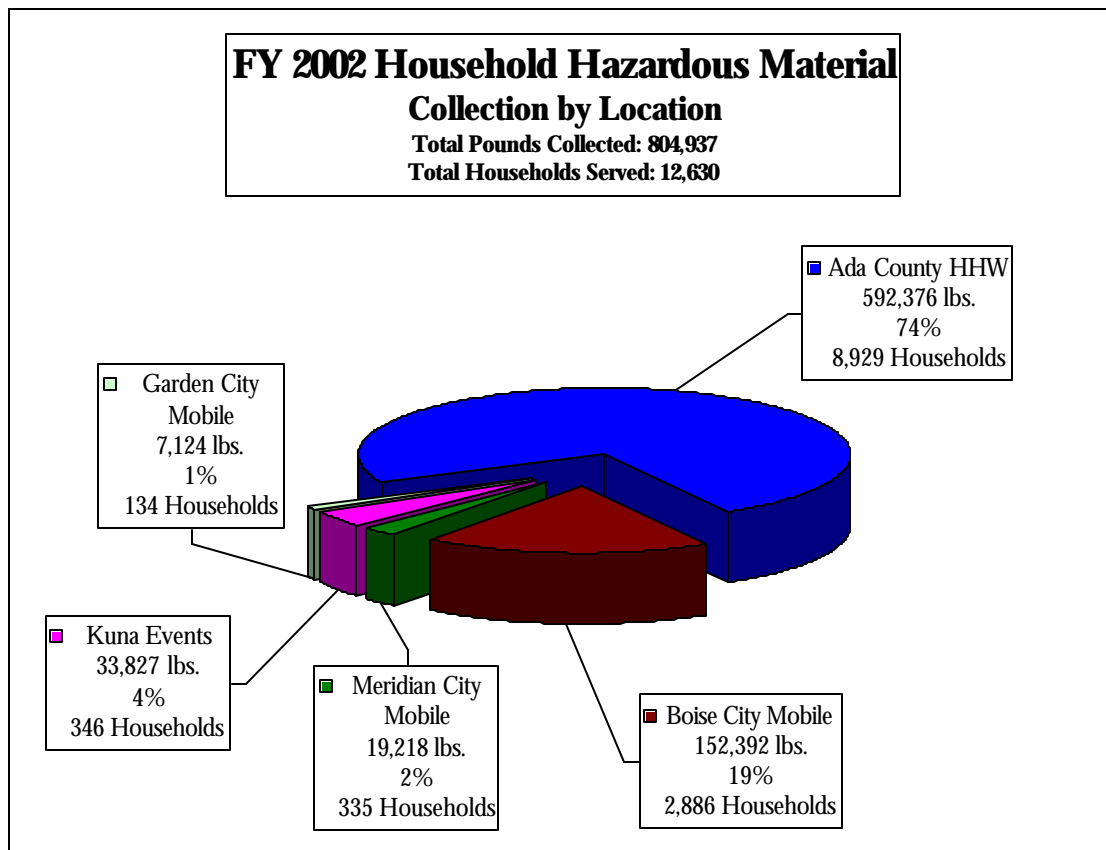


Figure 13 – FY 2002 HHW Program by Location

Based on a waste management hierarchy set by Ada County, the County's Hazardous Material Contractor distributes material collected in the Household Hazardous Material Program into the following categories:

- Reuse,
- Recycle,
- Incinerate,
- Landfill

Fortunately, Ada County's Hazardous Material Contractor, MSE Environmental, reuses or recycles over 87% of the material collected (based on weight). Only 12.8% (by weight) is incinerated.

The following chart shows the make-up of reused and recycled materials.

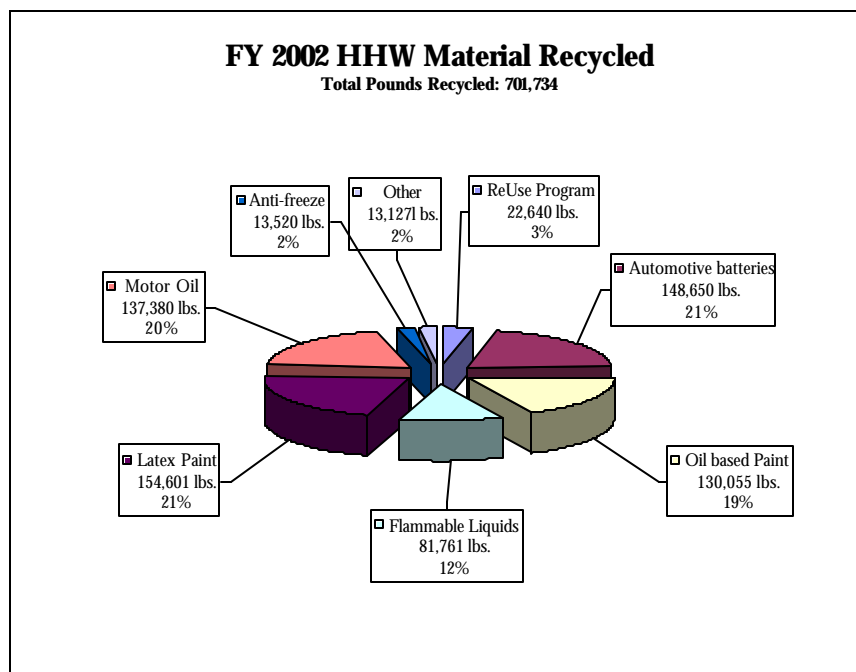


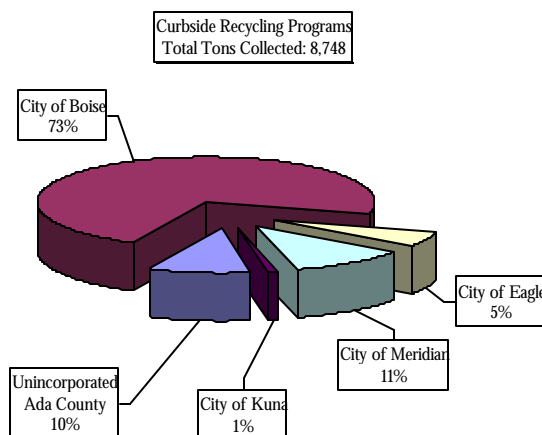
Figure 14 – FY 2002 HHW Material Recycled (in pounds)

CURBSIDE RECYCLING

Although curbside recycling is not a landfill project, the Solid Waste Management Department encourages curbside recycling as a method of waste diversion and reduction. Presently, Ada County is the only county within the State of Idaho where every single-family residence may access curbside recycling.

During this past fiscal year, curbside recycling service became available to the residents of the City of Kuna. This was the last incorporated area to provide the service. Figure 15 details the curbside recycling efforts of the cities of Boise, Meridian, Eagle, Kuna and the unincorporated area of Ada County. Garden City and Star have curbside recycling through their trash hauler, BFI.

Figure 7 – Curbside Recycling Program



OUT OF THE ORDINARY

NEW CONTRACTS AND PROJECTS

During Fiscal Year 2002, the Solid Waste Management Department issued three requests for statements of qualifications for engineering services - one for reconstruction of the landfill access road; one for final cover design for the Hidden Hollow Sanitary Landfill; and, one for design of a new solid waste disposal facility.

ROAD RECONSTRUCTION

Hidden Hollow's main access receives over 550 vehicles per day. Vehicles ranging from small cars to large, heavy-laden semi-tractors and trailers. Originally constructed in 1986, the road's base deteriorated to the point of needing considerable attention.

Before the department could have the road reconstructed, we needed an engineer to determine the extent of deterioration. With help from the Ada County Operations and Purchasing departments, we issued a Request for Statement of Qualifications for Engineering Services. After considerable deliberation, we selected Arrow Engineering of Eagle, Idaho, from among several respondents.

Based on the department's criteria, Arrow Engineering designed the project to meet our long-term goals. Arrow Engineering assisted us with bid documents and a Request for Proposal for the actual road reconstruction. We chose Roberson Construction as the contractor for the project.

The project called for recycling the existing road surface. One downside of this approach was that it raised the finished surface elevation between 12 and 18 inches. This required that all supporting structures, such as the cashiers' booths, parking lot lights,

drains, and similar structures, be raised as well.



Figure 16 - Cashier's Booth on stilts awaiting new support.

From start to finish, the project took about three weeks. Project scheduling required minimal interference with landfill operations, so construction crews worked nights and Sundays.



Figure 17 - (left) Access road ready for paving. (right) Paved.

Besides repairing the deteriorated road surface, the project widened the travel surface and corrected some minor safety issues, including installation of new guardrail.

HIDDEN HOLLOW LANDFILL CLOSURE

The Hidden Hollow Sanitary Landfill is filling up. Ada County's engineering consultant estimates the Landfill will reach its capacity around the year 2010. Not a bad run when one considers that Hidden Hollow opened in 1972.

About one-quarter (¼) of the Landfill (roughly 40 acres) has reached capacity. It is

time to install the final cover on this part of the Landfill. Due to the size of the project and to the length of time to complete final closure, Ada County issued a request for statement of qualifications for engineering services to design the final landfill cover. Several firms responded to the request for statements of qualifications.

After considerable examination of the applications and interviews by the selection committee, the committee unanimously recommended CH2M Hill to the Board of Ada County Commissioners. The Board awarded a contract to CH2M Hill for the design of the Landfill's final cover, landfill gas extraction system, and construction oversight.

CH2M Hill's proposed final cover design involves placement of 5-feet of soil over the top of the landfill. This will enable plants and native vegetation to use rainfall and snowmelt while keeping water from percolating into the buried trash. The design includes a landfill gas extraction system to aid in odor control at the landfill. CH2M Hill's estimates total construction time of approximately 14 months. Construction should begin in the Spring of 2003.

NEW SOLID WASTE LANDFILL DISPOSAL FACILITY

With the Hidden Hollow Sanitary Landfill nearing capacity, the County must have its next disposal option in place before Hidden Hollow closes. Knowing that obtaining site-certification and approval takes considerable time, the Solid Waste Management Department issued a request for statement of qualifications for engineering services for the design of a new solid waste disposal facility.

From the 3 firms that responded, the selection committee unanimously recommended CH2M Hill to the Board of Ada County Commissioners. CH2M Hill superbly demonstrated its background and experience in designing new landfill facilities. One of CH2M Hill's first tasks will be a site

feasibility study to determine Ada County's best options for extending the solid waste management system in Ada County.

COMMUNITY ACTION

The Board of Ada County Commissioners waived disposal fees for special events held in Ada County. As in the past, the Board waived fees for the Boise River Festival, Paint the Town and the Western Idaho Fair. Each year, the Board also authorizes the Landfill to accept leaves and Christmas trees for disposal at no charge to individuals and companies who haul their own leaves or trees. This amounts to a total fee waiver of roughly \$50,000 for special events and activities.

Part of the department's educational program includes tours of the landfill and visits to local schools. During Fiscal Year 2002, staff conducted over a dozen tours and visited one school.

WASTE DIVERSION – PILOT PROJECT

In an effort to decrease traffic and to increase safety at the Landfill, Ada County and BFI Waste Systems divert a portion of Ada County's solid waste to a different landfill. During the pilot project, the Board of Ada County Commissioners authorized a diversion of up to 10%. The initial year saw a diversion rate of 3%. During Fiscal Year 2003, we hope to see this rate nearer to the approved rate.

THE FUTURE

Ada County is continually assesses its solid waste management system and hazardous material management program. Each year, residents and business in Ada County generate more than 300,000 tons of trash. Managing this volume requires that Ada County stay abreast of current regulations with an eye on future changes in regulations and in technologies.

The Solid Waste Management Department encourages its staff to study trends and options in waste management. As the County plans its future solid waste management facilities, one can assume that a waste transfer station will factor into the plans. A transfer station provides convenience and safety for system users while increasing the County's flexibility in managing the waste stream.



An integral part of any solid waste management system is participation of residents and businesses in waste reduction and waste diversion strategies. Reduce, reuse, and recycle is the battle cry of any modern waste management system. Reducing the amount of waste generated, reusing material, and recycling resources reduces the demand for landfill space.

IN MEMORIAM

On October 31, 2001, the Solid Waste Management Department lost a good friend and employee. Allan C. Claman died of a heart attack while working.



Al, we miss your sense of humor and warm demeanor.

The Idaho solid waste industry also lost a long-time friend. On May 20, 2002, Dr. Ron Baird, PhD., passed away after a long battle with cancer. Ron was the Solid Waste expert for the Central District Health Department before going to work in private industry. His depth of knowledge will greatly be missed.

APPENDICES

Appendix A

WASTE MATERIAL

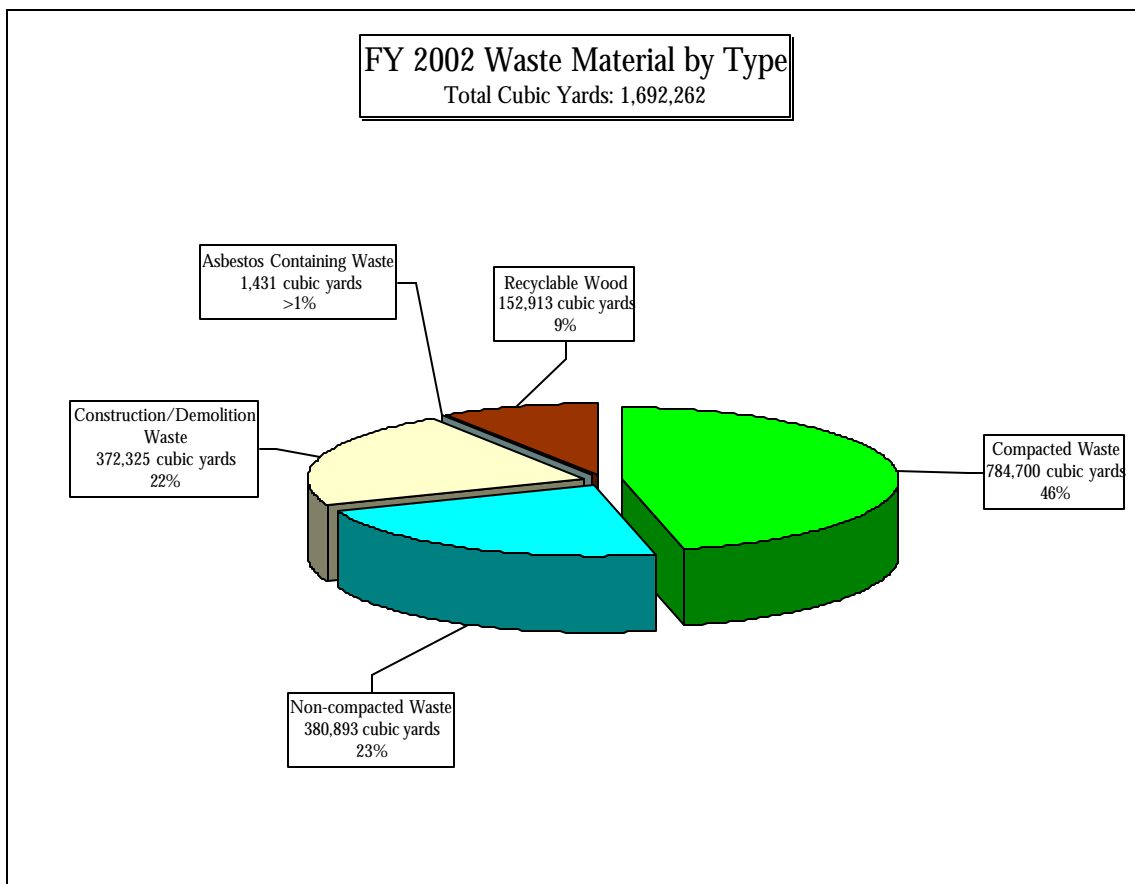
Waste entering the Hidden Hollow Sanitary Landfill comes in all forms. However, for convenience and simplicity, the waste is classified into five (5) basic categories:

- Compacted Waste – waste in “packer” trucks or commercial compactors.
- Non-compacted Waste – typically “self-haul” regular household waste.
- Construction/Demolition Waste – waste from any construction or demolition project, including wood,

metal, wallboard, rocks, concrete, dirt, appliances.

- Asbestos Containing Waste – any material containing asbestos fibers.
- Recyclable Wood – wood placed in the wood recycling area. This material is not buried in the landfill.

The following graph shows the breakdown of material as measured in cubic yards.



Appendix B

| | Tires | Wood | Refrig | Batteries | Oil | Antifreeze |
|----------------------|--------------|---------------|---------------|------------------|----------------|-------------------|
| | Each | Tons | Units | Units | Gallons | Gallons |
| October '01 | 419 | 2209.7 | 211 | 330 | 2000 | 200 |
| November '01 | 563 | 2118.38 | 147 | 240 | 1000 | 225 |
| December '01 | 850 | 1345.05 | 35 | 60 | 562.5 | 75 |
| January '02 | 497 | 1424.25 | 82 | 270 | 675 | 75 |
| February '02 | 627 | 1714.73 | 188 | 86 | 630 | 75 |
| March '02 | 900 | 1613.25 | 230 | 100 | 1450 | 100 |
| April '02 | 1504 | 2414.25 | 120 | 190 | 2900 | 200 |
| May '02 | 1053 | 2814.98 | 208 | 436 | 2055 | 100 |
| June '02 | 920 | 2702.48 | 108 | 574 | 1500 | 210 |
| July '02 | 819 | 2375.33 | 282 | 257 | 1725 | 125 |
| August '02 | 1093 | 2922.75 | 107 | 280 | 1225 | 130 |
| September '02 | 326 | 3104.55 | 133 | 150 | 1450 | 175 |
| TOTALS | 9,571 | 26,760 | 1851 | 2,973 | 17,173 | 1,690 |

| | a | b | c | d | e |
|-------------|---------------|---------------|---------------|-----------|--------------|
| TONS | 143.56 | 26,760 | 138.82 | 74 | 68.69 |

TOTALS TONS 27,192

- a. Tires @ ... 30# ea
- b. Refrigeration Units @ ... 150# ea
- c. Batteries @ ... 50# ea
- d. Oil @ ... 8# per gallon
- e. Antifreeze @ ... 8# per gallon

Appendix - C

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 | 47.01 | 52.47 | 47.67 | 51.17 | 37.67 | 41.70 | 39.49 | 43.22 | 42.96 | 41.29 | 40.92 | 36.42 | 521.99 |
| MWP/OC | 12.37 | 13.81 | 12.55 | 13.49 | 9.92 | 10.98 | 15.77 | 17.25 | 17.80 | 17.12 | 16.96 | 15.09 | 173.11 |
| C | | | | | | | | | | | | | |
| Plastic | 1.92 | 2.14 | 1.95 | 2.08 | 1.54 | 1.70 | 3.80 | 4.16 | 3.87 | 3.72 | 3.68 | 3.28 | 33.84 |
| Tin | 4.41 | 4.93 | 4.47 | 4.78 | 3.53 | 3.91 | 4.37 | 4.77 | 2.42 | 2.10 | 2.09 | 1.48 | 43.26 |
| Aluminum | 1.21 | 1.35 | 1.23 | 1.31 | .97 | 1.07 | 1.20 | 1.31 | 1.14 | 1.31 | 1.3 | 1.48 | 14.88 |
| OMG | 3.91 | 4.36 | 3.97 | 4.24 | 3.13 | 3.47 | 5.49 | 6.01 | 7.20 | 6.92 | 6.85 | 6.10 | 61.65 |
| Totals | 70.83 | 79.06 | 71.84 | 77.06 | 56.76 | 62.83 | 70.12 | 76.72 | 75.39 | 72.46 | 71.80 | 63.85 | 848.73 |

ONP = Newspaper

MWP/OCC = Recovered Paper/Cardboard Boxes

Plastic = #1, #2, #3

Tin = Steel "Tin" Cans

OMG = Magazines and Catalogs

Appendix - D

Boise City
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 | 376.05 | 390.08 | 382.72 | 354.42 | 298.72 | 298.43 | 303.87 | 316.35 | 280.72 | 294.11 | 300.86 | 301.73 | 3,898.06 |
| MWP/OC | 98.98 | 102.68 | 100.74 | 93.40 | 78.63 | 78.55 | 121.31 | 126.31 | 116.34 | 121.92 | 124.69 | 125.05 | 1,288.60 |
| C | | | | | | | | | | | | | |
| Plastic | 15.35 | 15.93 | 15.63 | 14.41 | 12.20 | 12.19 | 29.23 | 30.44 | 25.26 | 26.48 | 27.03 | 27.14 | 251.29 |
| Tin | 35.24 | 36.62 | 35.87 | 33.09 | 28.00 | 27.97 | 33.60 | 34.93 | 15.86 | 15.02 | 15.36 | 12.24 | 323.80 |
| Aluminum | 9.69 | 10.05 | 9.86 | 9.07 | 7.70 | 7.69 | 9.21 | 9.61 | 7.43 | 9.34 | 9.56 | 12.24 | 111.45 |
| OMG | 31.28 | 32.44 | 31.83 | 29.36 | 24.84 | 24.82 | 42.24 | 43.97 | 47.04 | 49.29 | 50.42 | 50.55 | 458.08 |
| Totals | 566.59 | 587.80 | 576.65 | 533.77 | 450.09 | 449.65 | 539.46 | 561.61 | 492.65 | 516.16 | 527.92 | 528.95 | 6,331.30 |

ONP = Newspaper

MWP/OCC = Recovered Paper/Cardboard Boxes

Plastic = #1, #2, #3

Tin = Steel "Tin" Cans

OMG = Magazines and Catalogs

Appendix - E

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 | 25.83 | 29.73 | 29.08 | 27.21 | 22.92 | 26.79 | 20.73 | 21.01 | 21.28 | 20.15 | 22.46 | 22.42 | 289.61 |
| MWP/OC | 6.81 | 7.83 | 7.67 | 7.17 | 6.04 | 7.06 | 8.28 | 8.40 | 8.81 | 88.34 | 9.30 | 9.28 | 94.99 |
| C | | | | | | | | | | | | | |
| Plastic | 1.05 | 1.21 | 1.18 | 1.11 | .93 | 1.09 | 1.94 | 2.02 | 1.90 | 1.80 | 2.01 | 2.00 | 18.29 |
| Tin | 2.41 | 2.78 | 2.72 | 2.54 | 2.14 | 2.50 | 2.32 | 2.35 | 1.23 | 1.17 | 1.31 | 1.30 | 24.77 |
| Aluminum | .66 | .76 | .74 | .70 | .59 | .69 | .63 | .63 | .57 | .53 | .59 | .59 | 7.68 |
| OMG | 2.14 | 2.46 | 2.41 | 2.25 | 1.90 | 2.22 | 2.87 | 2.91 | 3.55 | 3.36 | 3.74 | 3.74 | 33.55 |
| Totals | 38.90 | 44.77 | 43.80 | 40.98 | 34.52 | 40.35 | 36.82 | 37.32 | 37.34 | 35.35 | 39.41 | 39.33 | 468.89 |

ONP = Newspaper

MWP/OCC = Recovered Paper/Cardboard Boxes

Plastic = #1, #2, #3

Tin = Steel "Tin" Cans

OMG = Magazines and Catalogs

Appendix - F

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/OM | 54.87 | 57.42 | 54.90 | 52.10 | 42.17 | 47.94 | 50.53 | 52.15 | 48.73 | 49.27 | 50.21 | 49.57 | 609.86 |
| G | | | | | | | | | | | | | |
| MWP/OC | 24.83 | 25.99 | 24.85 | 23.58 | 19.09 | 21.70 | 22.87 | 23.60 | 22.05 | 22.30 | 22.73 | 22.44 | 276.03 |
| C | | | | | | | | | | | | | |
| Plastic | 5.47 | 5.72 | 5.47 | 5.19 | 4.20 | 4.78 | 5.04 | 5.20 | 4.86 | 4.91 | 5.01 | 4.94 | 60.79 |
| Tin | 2.60 | 2.72 | 2.60 | 2.47 | 2.00 | 2.27 | 2.39 | 2.47 | 2.31 | 2.33 | 2.38 | 2.35 | 28.89 |
| Aluminum | 1.43 | 1.50 | 1.44 | 1.36 | 1.10 | 1.25 | 1.32 | 1.36 | 1.27 | 1.29 | 1.31 | 1.30 | 15.93 |
| Totals | 89.2 | 93.35 | 89.26 | 84.7 | 68.56 | 77.94 | 82.15 | 84.78 | 79.22 | 80.1 | 81.64 | 80.6 | 991.5 |

ONP = Newspaper

MWP/OCC = Recovered Paper/Cardboard Boxes

Plastic = #1, #2, #3

Tin = Steel "Tin" Cans

OMG = Magazines and Catalogs

Appendix - G

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/OM | | | 8.47 | 7.99 | 5.66 | 7.54 | 7.56 | 6.42 | 6.63 | 7.72 | 7.05 | 6.26 | 71.3 |
| G | | | | | | | | | | | | | |
| MWP/OC | | Program started 12/01 | 2.52 | 1.96 | 1.69 | 1.82 | 3.35 | 2.90 | 2.22 | 3.05 | 2.78 | 2.47 | 24.76 |
| C | | | | | | | | | | | | | |
| Plastic | | | 0.33 | 0.26 | 0.22 | 0.24 | 0.60 | 0.64 | 0.50 | 0.61 | 1.00 | 0.62 | 5.02 |
| Tin | | | 0.77 | 0.65 | 0.51 | 0.55 | 0.69 | 0.30 | 0.25 | 0.30 | 0.34 | 0.30 | 4.66 |
| Aluminum | | | 0.22 | 0.19 | 0.14 | 0.16 | 0.23 | 0.17 | 0.20 | 0.23 | 0.18 | 0.16 | 1.88 |
| Totals | | | 12.31 | 11.05 | 8.22 | 10.31 | 12.43 | 10.43 | 9.8 | 11.91 | 11.35 | 9.81 | 107.62 |

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 extend a very special thank you to the following people and companies who helped in the preparation of this report.

The Board of Ada County Commissioners

Grant P. Kingsford, Chairman
Sharon M Ullman, Commissioner

ROGER D. SIMMONS, COMMISSIONER

The staff of the Ada County Solid Waste Management Department

DAVE NEAL, DIRECTOR

Rene Phillips, Health Protection Officer
Ted Hutchinson, Solid Waste Planner
Ken Wall, Hazardous Material Coordinator
Billie Starks, Account Clerk
Jim Krosschell, Account Clerk
Joey Smith, Maintenance Mechanic
Brad Noble, Maintenance Mechanic
Judy Roell, Cashier
Kathy Claman, Cashier
R.B. Nooner, Cashier
Barbara Burkhardt, Cashier

JOLIE ROSENFELD, CASHIER

The staff of the City of Boise – Public Works Department – Environmental Division

Catherine Chertudi
Angela Deckers
Symantha Zeimet

BFI Waste Systems

Dave Fisher, General Manager

TANYA MERICLE, COMMUNITY RELATIONS

SANITARY SERVICES COMPANY

Steve Sedlacek
Bill Gregory

Enviro-Progress, Inc.

Devon Downs

MSE Environmental

Janice Oldemeyer
Brent Westfall

Environmental Earthworks, Inc.

Joanne Haile
Terry Haile