

US EPA ARCHIVE DOCUMENT

FULL COST ACCOUNTING

**PRACTICAL GUIDANCE ON
CONVERTING TO FCA**

**Government Finance Officers Association
under
Cooperative Agreement with US EPA**

February 2000

INTRODUCTION

Governmental entities all across the country offer a variety of solid waste collection and disposal services. As populations and expectations increase, governments face special challenges as they seek to maintain, and even expand, their solid-waste-related activities. In this context, it is essential that governments determine the full cost of providing solid-waste-related services. For, it is only when they are armed with this knowledge that governments are truly in a position to make informed decisions regarding the financing of their solid-waste activities (e.g., rate setting). Likewise, the full cost of providing solid-waste-related services is a necessary component in any proper evaluation of alternative service-delivery options (e.g., contracting for services with outside parties).

It is not a simple matter to identify all of the costs associated with providing a given service. In addition to costs that are clearly and exclusively associated with providing a given service (i.e., direct costs), there are also likely to be numerous less visible costs (i.e., indirect costs) that must also be identified. Furthermore, it is essential to distinguish costs from disbursements or expenditures. A cost is incurred in the period in which a benefit is received. The disbursement or expenditure related to a given cost, on the other hand, might occur before, during or even after this period. Thus, for example, rent is considered to be a cost of the rental period, even if it was actually paid in advance or in arrears. The goal of full-cost accounting (FCA) then is to identify *all* of the costs associated with providing goods and services, both direct and indirect, *regardless of the period in which the related disbursements or expenditures occur*. A fuller discussion of the notion of full cost and how it applies to solid-waste management activities can be found in the next section.

Many governments currently do not use FCA for their solid-waste management activities, or if they do, employ a modified form of FCA. Such governments face the very real risk that their fees and charges may prove insufficient to cover their costs. For example, if such a government operates a landfill, it may find that the fees it charged landfill users were not, in fact, sufficient to provide the resources needed to properly close the site and ensure its proper monitoring and maintenance after closure.

The role of EPA and GFOA

The United States Environmental Protection Agency (EPA) has taken the initiative in promoting the increased use of FCA for solid-waste management activities. In recent years, EPA has worked closely with the Government Finance Officers Association (GFOA) toward achieving that goal. It was with that goal in mind that the GFOA approved a recommended practice on *The Application of Full-Cost Accounting to Municipal Solid Waste Management Activities* in 1998. The specific provisions of that recommended practice are as follows:

- Governments should gather the *accrual* information needed for FCA, even if all or a portion of their solid waste management activities are accounted for and reported on a modified accrual basis (e.g., solid waste activities accounted for and reported in the

general fund, for which generally accepted accounting principles [GAAP] dictate the use of the modified accrual basis of accounting for governmental funds).

- Governments may find it particularly valuable to use one or more *proprietary funds* to account for all or a portion of its solid waste management activities.
- Proprietary funds are particularly recommended for governments that are directly involved in the disposal of solid waste themselves (e.g., landfills accounted for in enterprise funds).
- Governments should compile the information needed to report on FCA both by “activity” (e.g., collection, transfer station, transport, solid waste facility, sales) and by “path” (e.g., recycling, composting, waste-to-energy, land disposal).
- In comparing the costs of various solid-waste management options, governments must distinguish between “fixed” (or “sunken”) costs and “variable” costs. At the same time, it is important to realize that fixed costs may ultimately behave more like variable costs with the passage of time.
- There should be “systematic and rational” allocation of appropriate costs along “activities” or “paths”.
- The recovery of cost is obviously a crucial part of establishing solid waste fees and charges. However, cash flow needs should also be considered an important factor in the establishment of the appropriate user fees and charges.

The purpose of this handbook is to provide practical guidance to governments wishing to implement these recommendations.

How to use this handbook

This handbook is structured around a set of worksheets designed to help governments identify and collect the data they need to determine the full cost of their solid-waste management activities. Of course, these forms are only intended to serve as models, and should be modified, as needed, to meet a government's specific circumstances. Governments naturally will desire FCA data on each individual activity and program path; consequently, a separate set of forms will need to be completed for each activity or program path. (A discussion of activities and program paths can be found in the next section)

Detailed instructions are provided for completing each of the forms contained in this handbook. These instructions should be studied carefully before attempting to complete the forms. The following paragraphs provide a brief summary of each of the forms contained in the handbook.

Summary Form. Full cost information is needed for both individual activities and program paths. As a practical matter, governments will gather cost data on one basis (e.g., by activity) and then allocate those costs on the other basis (e.g., by program path). Accordingly, Summary Form 1 is designed for governments that gather cost data on the basis of activity, while Summary Form 2 is intended for governments that use program paths as the basis for gathering cost data. In an ideal situation, a government's accounting system would provide all of the information needed to complete one of the two summary forms for each activity or program path. In practice, however, such information often is not available. Governments in this latter situation should use Forms A through I, which support the Summary Form, to gather the missing data.

Form-A, Employee Payroll and Time Accumulation. Form-A is used to capture the costs of payroll in the solid waste processing cycle. As described in the instructions for Form-A, there are two versions of this form. Form-A(1) takes costs accumulated by activity and allocates them to program paths. Form-A(2) takes costs accumulated by program path and allocates them by activity.

Form-B, Debt Interest Accumulation and Allocation. Form-B is used to identify solid-waste-related costs resulting from debt and capital leases. As described in the instructions for Form-B, there are two versions of this form. Form-B(1) takes costs accumulated by activity and allocates them to program paths. Form-B(2) takes costs accumulated by program path and allocates them by activity.

Form-C, Depreciation of Capital Assets. Form-C is used to calculate depreciation for all assets used by the solid waste operation. The form can accumulate depreciation based upon useful life in years, hours of usage, or machine miles. A single form is provided that can be used regardless of whether costs are accumulated by activity or program path.

Form-D, Direct Operating Costs. Form-D is used to identify all direct costs associated with the solid waste operation. There are two sections of the form. The first section identifies direct costs associated with a single activity or program path. The second section identifies direct costs that need to be assigned because they are associated with more than one activity or program path. As is described in the instructions for Form-D, there are two versions of the form. Form-D(1) takes costs accumulated by activity and allocates them to program paths. Form-D(2) takes costs accumulated by program path and allocates them by activity.

Form-E, Indirect Operating Costs and Allocation Methods. Form-E provides a variety of mechanisms to identify indirect operating costs that should be included as part of the full cost of a solid waste operation. While any systematic and reasonable method of allocation is acceptable, this form focuses on two specific ways that such costs could be allocated. A single form is provided that can be used regardless of whether costs are being accumulated by activity or program path.

Form-F, Predevelopment and Construction Costs. Form-F provides a mechanism to capture up-front costs, not only for landfill operations, but for predevelopment and construction costs incurred in connection with other solid-waste activities and programs. A separate form should be used for each facility.

Form-G, Closure and Postclosure Care and Decommissioning Costs. Form-G facilitates the collection of data for the closure or decommissioning of solid waste sites and facilities. While this activity is most commonly associated with landfill sites, closure or decommissioning costs are also incurred with other types of solid waste management sites. Form-G may be used for either situation. A separate form should be used for each individual landfill site or other facility location.

Form-H, Solid Waste Processed by a Site or Facility. Form-H facilitates the tracking of the quantity and type of solid waste being processed at a particular facility for a particular activity or program. Individual copies of this form will be needed for each site or facility.

Form-I, Volunteer and Prison Labor. Some governmental entities have the benefit of free volunteer and prison labor in their solid waste operations. Similar to other donated assets that do not involve a cash disbursement, free labor should be reported as a cost during the periods that benefit from the labor. Form-I assists in the tracking and reporting of non-employee labor contributed to the solid waste effort.

The following diagram illustrates which forms would be used depending upon whether a government wished to initially collect cost data by activity or by program path.

Costs by Activity

Costs by Program Path

Summary Form 1
Form-A(1)
Form-B(1)
Form C
Form-D(1)
Form-E
Form-F
Form-G
Form-H
Form-I

Summary Form 2
Form-A(2)
Form-B(2)
Form C
Form-D(2)
Form-E
Form-F
Form G
Form-H
Form-I

In either case, a separate form would need to be completed for each individual activity/program path.

APPLYING THE CONCEPT OF FULL COST ACCOUNTING TO SOLID-WASTE MANAGEMENT ACTIVITIES

Any practical discussion of full-cost accounting (FCA) must begin with an examination of what exactly is meant by the term “cost.” The Government Finance Officers Association’s (GFOA) 1994 *Governmental Accounting, Auditing and Financial Reporting (GAAFR)* defines “cost” as “the amount of money or other consideration exchanged for goods or services.”

Expense versus expenditures

FCA necessarily presumes that “costs” will be recognized on an *accrual* basis. That is to say, 1) costs are to be recognized *as they are incurred* and 2) costs are to be considered to be incurred *in the period(s) in which benefit is received*. Under accrual accounting, the technical term that accountants use to describe cost is “expense.”

The actual exchange “of money or other consideration” associated with a given cost may occur at a different time than the period benefited. For example, some expenses are routinely paid in advance of the benefiting period (e.g., prepaid rent and insurance). Likewise the purchase of capital assets (e.g., buildings, equipment) will benefit future periods as well as the current period. Conversely, other expenses may be paid “after the fact” (e.g., reimbursed services). Accountants use the technical terms “disbursement” and “expenditure” (in contrast to “expense”) to describe the exchange transaction itself, without regard to the period benefited.

As noted earlier, full cost is properly measured on the basis of “expense,” regardless of when the related “disbursement” or “expenditure” occurs. Thus, for example, the *cost* of a capital asset should be recognized over its useful life (i.e., depreciation *expense*) rather than when it is purchased (i.e., capital outlay *disbursement/expenditure*).

State and local governments use a specialized form of financial reporting known as “fund accounting.” Under this system, tax-supported activities normally are reported in “governmental funds,” while business-type activities typically are reported in “proprietary funds.” Governmental funds report expenditures rather than expense. Because FCA specifically requires the calculation of *expense*, the expenditure-based data of governmental funds must first be converted to expense-based data before they can be used for FCA purposes. The directions for Form-D, Direct Operating Costs, include information on how to make this conversion.

Direct costs versus indirect costs

All costs can be categorized as being either *direct* or *indirect*. Direct costs are those that are clearly and exclusively associated with solid waste operations. For instance, salaries associated with a specific solid waste activity would be a good example of a direct cost.

Other common examples of direct costs associated with solid-waste management activities include the following:

- Fringe benefits,
- Supplies,
- Utilities,
- Maintenance costs,
- Contractual and other professional service arrangements,
- Advertisements,
- Software,
- Depreciation, and
- Interest expense.

Of course, it is only the portion of these costs that is *exclusively* associated with solid-waste management activities that would be considered *direct* costs.

Occasionally, solid-waste activities will receive the benefit of a privilege, service or asset for which payment is not required. This benefit should be recognized as part of the measure of full cost. The instructions for Form-D, Direct Operating Costs, include a discussion of such potentially “hidden” costs. Also, Form-I, Volunteer and Prison Labor, provides a mechanism to capture information on one particular kind of such cost.

Depreciation refers to the process by which the price of acquiring an asset is systematically allocated as cost (i.e., depreciation expense) over the asset’s useful life. Depreciation also is reported in connection with donated assets. In this latter case, the estimated fair value of the assets as of the date of donation is used as the basis for calculating depreciation expense. The instructions for Form-C, Depreciation of Capital Assets, include a further discussion of depreciation.

Another component of direct cost is interest expense on debt related to solid-waste management. Interest is the cost of “renting” money, and therefore should be recognized as an expense over the benefiting period (i.e., the period during which the debt is outstanding). Conversely, the repayment of the principal of debt is a *disbursement* or *expenditure* rather than an expense, and thus plays no part in the calculation of full cost.

From a solid-waste management perspective, indirect costs are those costs that benefit solid-waste management activities, but that would still exist even if solid-waste management activities were discontinued. Common examples of indirect costs include the following:

- General legislative services (including the governing board’s costs),
- Legal services,
- Personnel administration services,
- Finance, accounting, purchasing and payroll services,
- Budgeting and budget management services,

- Billing and collecting services,
- Data processing services,
- Planning and community development services,
- Public information services,
- Risk management and general insurance services, and
- Other types of departmental overhead (e.g., a solid waste management program administered by a Public Works Director, Civil Engineer or the like, that is also responsible for other services).

Unlike direct costs, only a *portion* of indirect costs are attributable to solid-waste management activities. Accordingly, systematic and rational methods need to be applied to determine the portion of indirect costs properly allocable to solid-waste management. Governments enjoy considerable discretion in the methods they may use for this purpose. This handbook includes sample data collection forms for indirect costs that discuss variables commonly used for the allocation of indirect costs.

Predevelopment costs

Governments often make disbursements or expenditures in the predevelopment phase of a capital project. Common examples of such predevelopment costs include all of the following:

- Engineering,
- Planning,
- Legal,
- Permitting, and
- Design costs.

Although the disbursements or expenditures related to these items may occur in the predevelopment phase, the resulting benefit is obtained over the life of the related capital asset. Accordingly, such amounts should 1) be included as part of the cost of the capital asset thus acquired and 2) be recognized subsequently as cost throughout the useful life of the related capital asset in the form of depreciation expense.

Closure and postclosure care costs

As a result of state and federal regulation, governments that operate solid-waste landfills are legally responsible for properly closing the landfill at the end of its useful life and then monitoring and maintaining the site for a period of up to 30 years following closure. The benefit of a landfill naturally occurs while the landfill is open, therefore the cost of closure and postclosure care needs to be anticipated and recognized as expense during the life of the landfill. Specific accounting guidance for this purpose is provided by the Governmental Accounting Standards Board in Statement No. 18, *Accounting for Municipal Solid Waste Landfill Closure and Postclosure Care Costs*.

Offsetting Revenue

Fees and charges for solid-waste management activities are commonly set to recover all or part of the cost of providing services. Some ancillary revenues, however, lack any direct connection to the cost of services. Common examples include the following:

- Interest income,
- Income generated from the sale of recyclable materials, and
- Income generated from the sale of retired equipment.

For FCA purposes, such ancillary revenues are offset against the costs of providing services.

Allocating costs by activity and program path.

Governments often utilize more than one approach to solid-waste management. For example, a single government may be involved in recycling, composting, the conversion of waste to energy, and land disposal. Each of these different approaches is commonly referred to as a “program path.”

Solid-waste management also requires a government to perform a variety of different functions (e.g., collection, operation of a transfer station, transport, operation of a solid-waste facility, sale of waste-related products). These functions are commonly known as “activities.” A single activity (e.g., collection) may benefit more than one program path (e.g., recycling, composting and land disposal).

Different types of decisions require different types of information. Thus, a decision on the relative merits of recycling versus land disposal would require the comparison of cost data collected on the basis of program paths. On the other hand, a decision on whether to outsource the transport function to a private firm would require cost information by activity. **A comprehensive system of FCA must provide cost data by both activity and program path.**

Cost data by activity

“Activities” can be defined simply as the basic steps required to operate a given solid waste program. The examples of activities used in this handbook are as follows:

- Collections – defined as the activity of collecting refuse from the citizenry (e.g., residential, commercial and industrial) for delivery to the waste transfer station.
- Transfers – transfer stations are where collected refuse is first dumped and sorted for further processing.

- Transporting – following the initial sort, this activity involves the retrieval and transporting of sorted refuse from the transfer station to another facility for either further processing or disposal.
- Facility management – the physical location to where sorted refuse is transported and either further processed and/or placed in a landfill. The most common examples include waste-to-energy plants, landfill sites, recycling facilities and composting facilities.
- Sales – usable products from the solid waste management operation are often sold. Examples would include energy generated from a waste-to-energy program or processed recycled materials.

An initial step in implementing FCA is the identification of a government's solid-waste management activities. This identification is not as easy as it might at first appear. Activities, for instance, may cross departmental or divisional lines. Likewise, the accounting for a single activity may stretch across more than one fund. It certainly cannot be assumed that the sanitation department will be the only department affected by solid-waste management activities. Employees and facilities of other departments or divisions may also play a role. For example, sales of composted or mulched byproducts are often coordinated by employees in another department.

Cost data by program path

“Program paths” can be defined as solid-waste management options that a government can make available to its citizens. The examples of program paths used in this handbook are as follows:

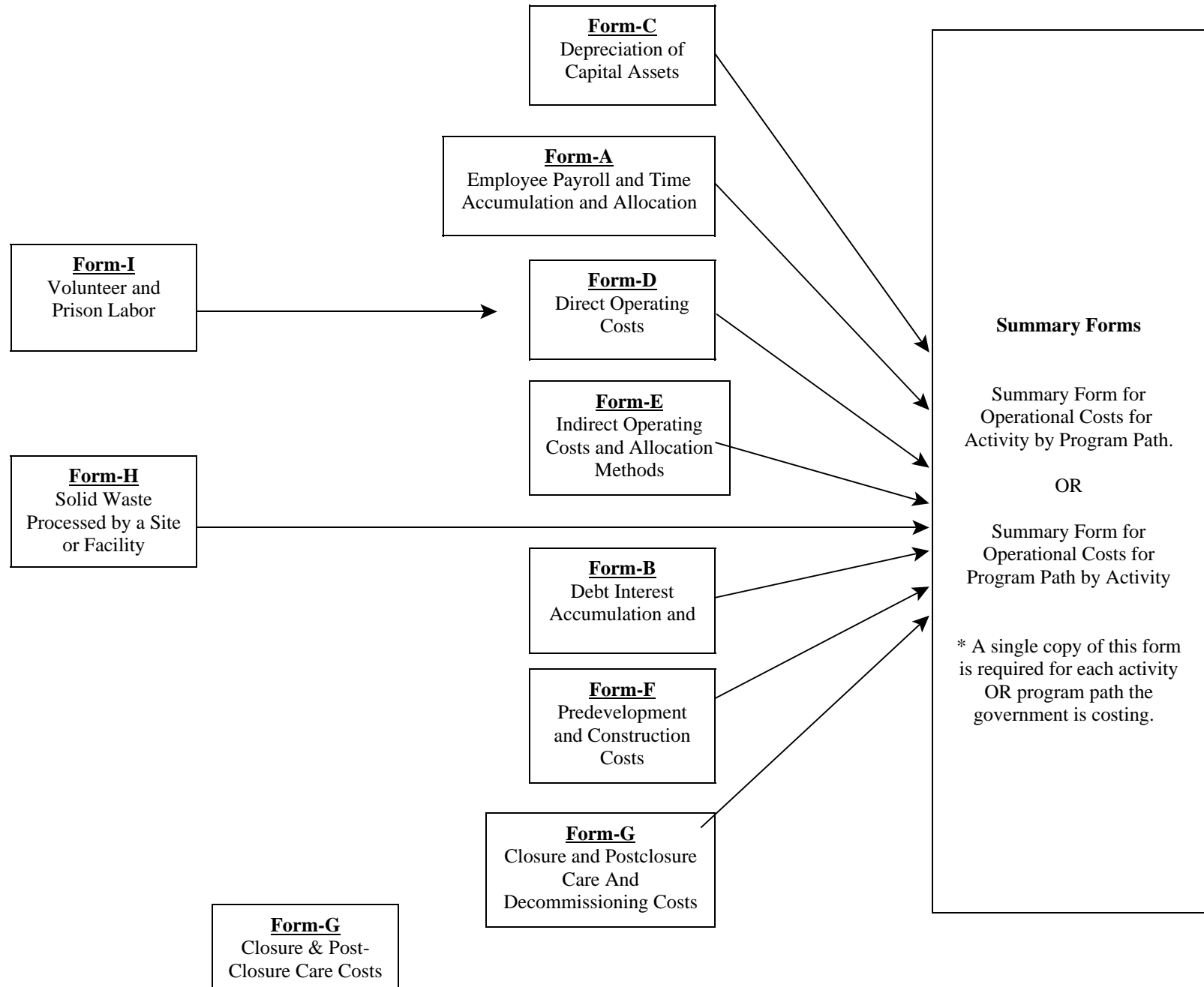
- Mixed waste – program that consists of all activities required to collect and process unsorted, non-hazardous waste to be placed in a landfill.
- Recycling – increasingly popular program consisting of all the activities required to collect, process and sell recyclable material.
- Composting – common program of wood and “green waste” removal (e.g., leaves, shrubbery, undergrowth). This path often results in the sale of composting and mulching materials.
- Waste-to-energy – program of converting waste materials into products used for the production of energy, or into energy itself (e.g., sales to local power companies).
- Hazardous waste – program that consists of the safe collection, transportation and disposal of toxic and other harmful materials (e.g., paint, motor oil, batteries, medical waste).

The same observations made earlier regarding the identification of activities apply equally well to the identification of program paths.

Full Cost Accounting Forms Flowchart

Cost Information Collection Forms

Summary Cost Information by
Activity and Program Path



Summary Collection Forms – 1 & 2

The Summary Collection Forms have been developed to assist in the collection of data for solid waste operations. This form has been designed to either capture costs by activity broken down by program path, or vice versa. *There are two versions of the form (i.e., Summary Form 1 and Summary Form 2). One version allows identification of costs for activities allocated by program path. The other allows the opposite – identification of costs of program paths by activities. Choose the applicable form format based on the manner in which the accounting records (i.e., chart of accounts) is established. For example, are the solid waste departments maintained as activities or program paths (e.g., collections department or landfill department)? The instructions are identical for either version. The results of each will link to the appropriate Summary Form.* The examples used throughout the instructions illustrate either an activity or program path. Their use as an example do not indicate that they are exclusive examples – they are just the one chosen for illustrative purposes. Examples that are activities are not indicative that program paths are not applicable, and vice versa.

Summary Form 1 concentrates on the costs for each program path that makes up a specific activity.

Summary Form 2 concentrates on the costs for each activity that makes up a specific program path.

This form can be used as a high level summary form to assist the government with an automated system in gathering full cost information. The form may also be used in conjunction with the supporting forms A through I. The supporting forms are designed for governments that have not fully automated their accounting systems to accumulate full cost information.

It should be noted that there will need to be separate supporting and summary forms for EACH activity or program path that is being costed.

Great care should be taken to identify the information the government requires and how often the information will be needed. If detailed information is required on a regular (e.g., monthly) basis, the possibilities of gathering full cost information on an automated basis should be explored.

<u>Field</u>	<u>Instruction</u>
Name Of Government	Enter the name of the government for which this form is being completed.
For The Period Ended	Enter the period being reported. Because information for full costing for solid waste operations may have many uses, annual, semi-annual, or monthly reporting may be requested.

Name Of Activity or Program Path	Enter the name of the activity or program path; one form per activity or program path is required. <i>For example: Enter the costs of the entire recycling program on one form.</i>
Section One – Collections Activity or Landfill Facility Program Path	This section is for the accumulation of costs for the collections activity performed on behalf of the specific program path or for the landfill facility program path of the specific activity. <i>For example: Collections of recyclable materials.</i>
Section One Cost Descriptions	Cost categories have been provided to assist in the identification of all the costs associated with the collections activity performed for the program path in question or the landfill facility program path for the activity in question. Enter the total costs for each category directly from your municipality's system printouts (or manually generated information), or use one of the provided supporting forms.
Sub-total Collections Activity or Landfill Facility Program Path	Enter on line 1 the total of all costs incurred by the collection activity or landfill facility program path.
Section Two – Transfer Activity or Recycling Facility Program Path	This section is for the accumulation of costs for the transfer activity performed on behalf of the specific program path or the recycling facility program path of the specific activity. <i>For example: Separation of recyclable materials for transportation to a recycling facility.</i>
Section Two Cost Descriptions	Cost categories have been provided to assist in the identification of all the costs associated with the transfer activity performed for the program path in question or the recycling facility program path for the activity in question. Enter the total costs for each category directly from system printouts (or manually generated information) or from the supporting forms.
Sub-total Transfer Activity or Recycling Facility Program Path	Enter on line 2 the total of all costs incurred by the transfer activity or the recycling facility program path.
Section Three – Transport Activity or Composting Facility Program Path	This section is for the accumulation of costs for the transport activity performed on behalf of the specific program path or the composting facility program path for the specific activity. <i>For example: Transportation of recyclable materials to a recycling facility.</i>

Section Three Cost Descriptions	Cost categories have been provided to assist in the identification of all the costs associated with the transport activity performed for the program path in question or composting facility program path for the activity in question. Enter the total costs for each category directly from system printouts (or manually generated information) or from the supporting forms.
Sub-total Transport Activity or Composting Facility Program Path	Enter on line 3 the total of all costs incurred by the transport activity or the composting facility program path.
Section Four – Facility Activity or Waste-to-Energy Program Path	This section is for the accumulation of costs for the facility activity performed on behalf of the specific program path or waste-to-energy program path for the specific activity. <i>For example: The costs of operating a recycling facility.</i>
Section Four Cost Descriptions	Cost categories have been provided to assist in the identification of all the costs associated with the facility activity performed for the program path in question or waste-to-energy program path performed for the activity in question. Enter the total costs for each category directly from system printouts (or manually generated information) or from the supporting forms.
Site Pre-Development & Construction	This cost will apply if the program path being costed contains a solid waste landfill. Enter the result of the annual cost per ton calculated on Form-F multiplied by the total tonnage processed by the landfill site that period. <i>Note: It is important that the correct measure of total tonnage is used to calculate the total site pre-development and construction costs. The value of total tonnage must be the same as the total used in section seven of this form.</i>
Closure & Post-Closure Care	This cost will apply if the program path being costed contains a solid waste landfill. Enter the amount from Form-G, Closure and Postclosure Care and Decommissioning Costs, for the current amount of closure and post-closure cost. <i>Remember: The calculation for closure & post-closure care is generally made once per year. If this form is prepared for some other time period, the total from Form-G, Closure and Postclosure Care and Decommissioning Costs, must be adjusted accordingly.</i>
Sub-total Facility Activity	Enter on line 4 the total of all costs incurred by the facility activity.

Section Five – Sales Activity or Other Solid Waste Facility Program Path	This section is for the accumulation of costs for the sales activity performed on behalf of the specific program path or any other solid waste facility program path of the specific activity. <i>For example: sales efforts to market and sell recyclable materials to end-users.</i>
Section Five Cost Descriptions	Cost categories have been provided to assist in the identification of all the costs associated with the sales activity performed for the program path in question or any other solid waste facility program path performed for the activity in question. Enter the total costs for each category directly from system printouts (or manually generated information) or from the supporting forms.
Sub-total Sales Activity or Other Solid Waste Facility Program Path	Enter the total of all costs incurred by the sales activity or any other solid waste facility program path on line 5.
Total Costs for the Activity or Program Path	Enter the total costs from lines 1 through 5. This will become line 6.
Section Six – Cost Per Ton	This section is used to calculate the cost per ton of refuse processed by the program path in question.
Total Costs	Carry the total from line 6.
Total Tonnage Processed	Enter on line 8 the total tonnage of refuse processed by this activity or program path alone . This information can be obtained from an automated system or from Form-H, Solid Waste Processed by a Site or Facility.
	It should be noted that Form-H, Solid Waste Processed by a Site or Facility, is only one example of how processing may be measured. The preparer/management certainly has the flex to determine other units of measure.
Cost Per Ton	Divide the total costs on line 7 by the total tonnage processed on line 8 and enter the result on line 9.
Prep By:	The initials of the person preparing this report.
Rev By:	The initials of the person reviewing this prepared report.
App By:	The initials of the person responsible for releasing the final cost information to interested parties.

Summary Form for Operational Costs for Activity by Program Path

Name of Government: _____

For the Period Ended: _____

Name of Activity: _____

Section One - Landfill Facility

Salaries/Wages		XXXXXXXXXX
Regular Wages	Form-A	
Benefits	Form-A	
Overtime	Form-A	
Debt Interest	Form-B	
Capital		XXXXXXXXXX
Depreciation -Assets in Years	Form-C	
Depreciation - Assets in Machine Hours	Form-C	
Depreciation - Assets in Machine Miles	Form-C	
<u>Non-Capital Direct Costs</u>		XXXXXXXXXX
Advertising	Form-D	
Assessments	Form-D	
Contract Services	Form-D	
Insurance	Form-D	
Licenses	Form-D	
Maintenance	Form-D	
Purchased Services	Form-D	
Rental and Operating Lease Costs	Form-D	
Software	Form-D	
Supplies	Form-D	
Telephone	Form-D	
Utilities	Form-D	
Worker's Compensation	Form-D	
Other - _____	Form-D	
Prepaid Items	Form-D	
Debt Issuance Costs	Form-D	
Purchases of Inventory	Form-D	
Increases in GLTDAG	Form-D	
Prison Labor	Form-D	
Volunteer Labor	Form-D	
Other Hidden Costs	Form-D	
Non-Capital Assignable Direct Costs	Form-D	
Indirect Costs	Form-E	
Predevelopment and Site Construction		XXXXXXXXXX
Landfills	Form-F	
Other Facilities	Form-F	
Decommissioning Costs	Form-G	
Closure and Postclosure Care Costs		XXXXXXXXXX
Landfills	Form-G	
Other Facilities	Form-G	
Sub-Total Landfill Facility	4	

Section Two - Recycling Facility

Salaries/Wages		XXXXXXXXXX
Regular	Form-A	
Benefits	Form-A	
Overtime	Form-A	
Debt Interest	Form-B	
Capital		XXXXXXXXXX
Depreciation -Assets in Years	Form-C	
Depreciation - Assets in Machine Hours	Form-C	
Depreciation - Assets in Machine Miles	Form-C	
<u>Non-Capital Direct Costs</u>		XXXXXXXXXX
Advertising	Form-D	
Assessments	Form-D	
Contract Services	Form-D	
Insurance	Form-D	
Licenses	Form-D	
Maintenance	Form-D	
Purchased Services	Form-D	
Rental and Operating Lease Costs	Form-D	
Software	Form-D	
Supplies	Form-D	
Telephone	Form-D	
Utilities	Form-D	
Worker's Compensation	Form-D	
Other - _____	Form-D	
Prepaid Items	Form-D	
Debt Issuance Costs	Form-D	
Purchases of Inventory	Form-D	
Increases in GLTDAG	Form-D	
Prison Labor	Form-D	
Volunteer Labor	Form-D	
Other Hidden Costs	Form-D	
Non-Capital Assignable Direct Costs	Form-D	
Indirect Costs	Form-E	
Sub-Total Recycling Facility	2	

Section Three -Composting Facility

<i>Salaries/Wages</i>		XXXXXXXXXX
Regular	Form-A	
Benefits	Form-A	
Overtime	Form-A	
<i>Debt Interest</i>	Form-B	
<i>Capital</i>		XXXXXXXXXX
Depreciation -Assets in Years	Form-C	
Depreciation - Assets in Machine Hours	Form-C	
Depreciation - Assets in Machine Miles	Form-C	
<i>Non-Capital Direct Costs</i>		XXXXXXXXXX
Advertising	Form-D	
Assessments	Form-D	
Contract Services	Form-D	
Insurance	Form-D	
Licenses	Form-D	
Maintenance	Form-D	
Purchased Services	Form-D	
Rental and Operating Lease Costs	Form-D	
Software	Form-D	
Supplies	Form-D	
Telephone	Form-D	
Utilities	Form-D	
Worker's Compensation	Form-D	
Other - _____	Form-D	
Prepaid Items	Form-D	
Debt Issuance Costs	Form-D	
Purchases of Inventory	Form-D	
Increases in GLTDAG	Form-D	
Prison Labor	Form-D	
Volunteer Labor	Form-D	
Other Hidden Costs	Form-D	
<i>Non-Capital Assignable Direct Costs</i>	Form-D	
<i>Indirect Costs</i>	Form-E	
<i>Sub-Total Composting Facility</i>	3	

Section Four - Waste-To-Energy Facility

<i>Salaries/Wages</i>		XXXXXXXXXX
Regular	Form-A	
Benefits	Form-A	
Overtime	Form-A	
<i>Debt Interest</i>	Form-B	
<i>Capital</i>		XXXXXXXXXX
Depreciation -Assets in Years	Form-C	
Depreciation - Assets in Machine Hours	Form-C	
Depreciation - Assets in Machine Miles	Form-C	
<i>Non-Capital Direct Costs</i>		XXXXXXXXXX
Advertising	Form-D	
Assessments	Form-D	
Contract Services	Form-D	
Insurance	Form-D	
Licenses	Form-D	
Maintenance	Form-D	
Purchased Services	Form-D	
Rental and Operating Lease Costs	Form-D	
Software	Form-D	
Supplies	Form-D	
Telephone	Form-D	
Utilities	Form-D	
Worker's Compensation	Form-D	
Other - _____	Form-D	
Prepaid Items	Form-D	
Debt Issuance Costs	Form-D	
Purchases of Inventory	Form-D	
Increases in GLTDAG	Form-D	
Prison Labor	Form-D	
Volunteer Labor	Form-D	
Other Hidden Costs	Form-D	
<i>Non-Capital Assignable Direct Costs</i>	Form-D	
<i>Indirect Costs</i>	Form-E	
<i>Sub-Total Waste-To-Energy Facility</i>	1	

Section Five -Other Solid Waste Facility

<i>Salaries/Wages</i>	XXXXXXXXXX
Regular	Form-A
Benefits	Form-A
Overtime	Form-A
<i>Debt Interest</i>	Form-B
<i>Capital</i>	XXXXXXXXXX
Depreciation -Assets in Years	Form-C
Depreciation - Assets in Machine Hours	Form-C
Depreciation - Assets in Machine Miles	Form-C
<i>Non-Capital Direct Costs</i>	XXXXXXXXXX
Advertising	Form-D
Assessments	Form-D
Contract Services	Form-D
Insurance	Form-D
Licenses	Form-D
Maintenance	Form-D
Purchased Services	Form-D
Rental and Operating Lease Costs	Form-D
Software	Form-D
Supplies	Form-D
Telephone	Form-D
Utilities	Form-D
Worker's Compensation	Form-D
Other - _____	Form-D
Prepaid Items	Form-D
Debt Issuance Costs	Form-D
Purchases of Inventory	Form-D
Increases in GLTDAG	Form-D
Prison Labor	Form-D
Volunteer Labor	Form-D
Other Hidden Costs	Form-D
<i>Non-Capital Assignable Direct Costs</i>	Form-D
<i>Indirect Costs</i>	Form-E
 <i>Sub-Total Other Solid Waste Facility</i>	5 <input type="text"/>
 <u>Total Costs For Activity</u>	6 = 1+2+3+4+5 <input type="text"/>

Section Six -Cost Per Ton

Total Costs	7 <input type="text"/>
Total Tonnage Processed (Form-H)	8 <input type="text"/>
Cost Per Ton	9 = 7/8 <input type="text"/>

Often, there will be revenue streams that offset the costs of certain activities program paths. When final costs have been determined, these revenues should be netted to arrive at the net costs of the activities or program paths. Separate documentation should be developed and maintained to support the calculation(s).

Prep by:	<input type="text"/>
Rev by:	<input type="text"/>
App by:	<input type="text"/>

Summary Form for Operational Costs for Activity by Program Path

Name of Government: _____

For the Period Ended: _____

Name of Program Path: _____

Section One - Collections Activity

<i>Salaries/Wages</i>		XXXXXXXXXX
Regular	Form-A	
Benefits	Form-A	
Overtime	Form-A	
<i>Debt Interest</i>	Form-B	
<i>Capital</i>		XXXXXXXXXX
Depreciation -Assets in Years	Form-C	
Depreciation - Assets in Machine Hours	Form-C	
Depreciation - Assets in Machine Miles	Form-C	
<i>Non-Capital Direct Costs</i>		XXXXXXXXXX
Advertising	Form-D	
Assessments	Form-D	
Contract Services	Form-D	
Insurance	Form-D	
Licenses	Form-D	
Maintenance	Form-D	
Purchased Services	Form-D	
Rental and Operating Lease Costs	Form-D	
Software	Form-D	
Supplies	Form-D	
Telephone	Form-D	
Utilities	Form-D	
Worker's Compensation	Form-D	
Other - _____	Form-D	
Prepaid Items	Form-D	
Debt Issuance Costs	Form-D	
Purchases of Inventory	Form-D	
Increases in GLTDAG	Form-D	
Prison Labor	Form-D	
Volunteer Labor	Form-D	
Other Hidden Costs	Form-D	
<i>Non-Capital Assignable Direct Costs</i>	Form-D	
<i>Indirect Costs</i>	Form-E	

Sub-Total Collections Activity 1

Section Two - Transfer Activity

<i>Salaries/Wages</i>		XXXXXXXXXX
Regular	Form-A	
Benefits	Form-A	
Overtime	Form-A	
<i>Debt Interest</i>	Form-B	
<i>Capital</i>		XXXXXXXXXX
Depreciation -Assets in Years	Form-C	
Depreciation - Assets in Machine Hours	Form-C	
Depreciation - Assets in Machine Miles	Form-C	
<i>Non-Capital Direct Costs</i>		XXXXXXXXXX
Advertising	Form-D	
Assessments	Form-D	
Contract Services	Form-D	
Insurance	Form-D	
Licenses	Form-D	
Maintenance	Form-D	
Purchased Services	Form-D	
Rental and Operating Lease Costs	Form-D	
Software	Form-D	
Supplies	Form-D	
Telephone	Form-D	
Utilities	Form-D	
Worker's Compensation	Form-D	
Other - _____	Form-D	
Prepaid Items	Form-D	
Debt Issuance Costs	Form-D	
Purchases of Inventory	Form-D	
Increases in GLTDAG	Form-D	
Prison Labor	Form-D	
Volunteer Labor	Form-D	
Other Hidden Costs	Form-D	
<i>Non-Capital Assignable Direct Costs</i>	Form-D	
<i>Indirect Costs</i>	Form-E	

Sub-Total Transfer Activity 2

Section Three -Transport Activity

<i>Salaries/Wages</i>		XXXXXXXXXX
Regular	Form-A	
Benefits	Form-A	
Overtime	Form-A	
<i>Debt Interest</i>	Form-B	
<i>Capital</i>		XXXXXXXXXX
Depreciation -Assets in Years	Form-C	
Depreciation - Assets in Machine Hours	Form-C	
Depreciation - Assets in Machine Miles	Form-C	
<i>Non-Capital Direct Costs</i>		XXXXXXXXXX
Advertising	Form-D	
Assessments	Form-D	
Contract Services	Form-D	
Insurance	Form-D	
Licenses	Form-D	
Maintenance	Form-D	
Purchased Services	Form-D	
Rental and Operating Lease Costs	Form-D	
Software	Form-D	
Supplies	Form-D	
Telephone	Form-D	
Utilities	Form-D	
Worker's Compensation	Form-D	
Other - _____	Form-D	
Prepaid Items	Form-D	
Debt Issuance Costs	Form-D	
Purchases of Inventory	Form-D	
Increases in GLTDAG	Form-D	
Prison Labor	Form-D	
Volunteer Labor	Form-D	
Other Hidden Costs	Form-D	
<i>Non-Capital Assignable Direct Costs</i>	Form-D	
<i>Indirect Costs</i>	Form-E	
<i>Sub-Total Transport Activity</i>	3	

Section Four -Facility Activity

<i>Salaries/Wages</i>		XXXXXXXXXX
Regular Wages	Form-A	
Benefits	Form-A	
Overtime	Form-A	
<i>Debt Interest</i>	Form-B	
<i>Capital</i>		XXXXXXXXXX
Depreciation -Assets in Years	Form-C	
Depreciation - Assets in Machine Hours	Form-C	
Depreciation - Assets in Machine Miles	Form-C	
<i>Non-Capital Direct Costs</i>		XXXXXXXXXX
Advertising	Form-D	
Assessments	Form-D	
Contract Services	Form-D	
Insurance	Form-D	
Licenses	Form-D	
Maintenance	Form-D	
Purchased Services	Form-D	
Rental and Operating Lease Costs	Form-D	
Software	Form-D	
Supplies	Form-D	
Telephone	Form-D	
Utilities	Form-D	
Worker's Compensation	Form-D	
Other - _____	Form-D	
Prepaid Items	Form-D	
Debt Issuance Costs	Form-D	
Purchases of Inventory	Form-D	
Increases in GLTDAG	Form-D	
Prison Labor	Form-D	
Volunteer Labor	Form-D	
Other Hidden Costs	Form-D	
<i>Non-Capital Assignable Direct Costs</i>	Form-D	
<i>Indirect Costs</i>	Form-E	
<i>Predevelopment and Site Construction</i>		XXXXXXXXXX
Landfills	Form-F	
Other Facilities	Form-F	
<i>Decommissioning Costs</i>	Form-G	
<i>Closure and Postclosure Care Costs</i>		XXXXXXXXXX
Landfills	Form-G	
Other Facilities	Form-G	
<i>Sub-Total Facility Activity</i>	4	

Section Five -Sales Activity

<i>Salaries/Wages</i>	XXXXXXXXXX
Regular	Form-A
Benefits	Form-A
Overtime	Form-A
<i>Debt Interest</i>	Form-B
<i>Capital</i>	XXXXXXXXXX
Depreciation -Assets in Years	Form-C
Depreciation - Assets in Machine Hours	Form-C
Depreciation - Assets in Machine Miles	Form-C
<i>Non-Capital Direct Costs</i>	XXXXXXXXXX
Advertising	Form-D
Assessments	Form-D
Contract Services	Form-D
Insurance	Form-D
Licenses	Form-D
Maintenance	Form-D
Purchased Services	Form-D
Rental and Operating Lease Costs	Form-D
Software	Form-D
Supplies	Form-D
Telephone	Form-D
Utilities	Form-D
Worker's Compensation	Form-D
Other - _____	Form-D
Prepaid Items	Form-D
Debt Issuance Costs	Form-D
Purchases of Inventory	Form-D
Increases in GLTDAG	Form-D
Prison Labor	Form-D
Volunteer Labor	Form-D
Other Hidden Costs	Form-D
<i>Non-Capital Assignable Direct Costs</i>	Form-D
<i>Indirect Costs</i>	Form-E
 <i>Sub-Total Sales Activity</i>	5 <input type="text"/>
 <u>Total Costs For Program Path</u>	6 = 1+2+3+4+5 <input type="text"/>

Section Six -Cost Per Ton

Total Costs	7 <input type="text"/>
Total Tonnage Processed (Form-H)	8 <input type="text"/>
Cost Per Ton	9 = 7/8 <input type="text"/>

Often, there will be revenue streams that offset the costs of certain activities program paths. When final costs have been determined, these revenues should be netted to arrive at the net costs of the activities or program paths. Separate documentation should be developed and maintained to support the calculation(s).

Prep by:
Rev by:
App by:

Form-A, Employee Payroll and Time Accumulation and Allocation

This form may be used to capture the costs of payroll for activities or program paths in the solid waste processing cycle. There are two versions of the form. One version allows identification of costs for activities allocated by program path. The other allows the opposite – identification of costs of program paths by activities. Choose the applicable form format based on the manner in which the accounting records (i.e., chart of accounts) is established. For example, are the solid waste departments maintained as activities or program paths (e.g., landfill department or collections department?). The instructions are identical for either version. The results of each will link to the appropriate Summary Form. The following are instructions, field by field, on how to prepare the two-page form.

Field

Instructions

Form-A, Page 1

	<p>This form is used to identify employees who devote all or a percentage of their time to municipal solid waste activities. This form should be used to allocate both salaried and non-salaried employee costs. It is important to note that one form per activity or program path is generally prepared. This form will assist in the allocation of salaries, wages and benefits to individual activities or program paths based on actual hours worked.</p>
Name of Government	Enter the name of the government for which this form is being completed.
Name of Solid Waste Activity or Program Path	This form will accommodate cost information for either solid waste activities or program paths. One form per activity or program path will be required.
For the Period Ended	Enter the period for which you are reporting. Because information for full costing for solid waste operations may have many uses, annual, semi-annual, and even monthly reporting may be requested.
Employee Name	Enter the employee name as it appears in the payroll records. All employees who devote <i>any</i> time to solid waste operations, excluding those considered <i>indirect</i> providers of service (refer to Form-E, Indirect Operating Costs and Allocation Methods), should be included. The time percentage fields will allocate to either solid waste or non-solid waste activities or program paths.
Employee Identification Number	Enter the employee identification number as it appears in the payroll records.

Account Code	Enter the general ledger account code used to record the actual salaries and wages for the employee (i.e., what expenditure account number was charged?).
Salary / Regular Wage	Enter the total salary / regular wage earned by the employee for the period.
Overtime Wage	Enter the total overtime wage earned by the employee for the period (typically, FLSA-exempt employees will not earn overtime wages). The basis (i.e., monthly, annual) should be consistent with the period being costed. For example, if the period is for a year, then annual overtime wage information should be used; if the period is for one month, then monthly overtime wage information should be used. In most cases, the costing will be for an annual period. Therefore, employees should have their annual overtime earnings entered into this field.
Time Percentage	Enter the percentage of time that the employee spent working in each activity or program path. A column has been provided to allocate time that an employee spends on non-solid waste duties. This information should be available in the payroll records. Some governments may use a separate time allocation system to capture hours. It may be necessary to estimate these percentages based on management judgment.
Total Time Allocation	The total from all individual activities or program paths must equal 100%. Again, employees devoting only a part of their time to solid waste operations should be allocated. This insures each employee's total time has been accounted for and that the full cost of the employee's salary has been allocated to an appropriate activity or program path.

Form-A, Page 2

Section 1 – Salaries / Regular Wage & Benefits Allocation

This section is used to calculate the salaries / regular wage allocations and benefits based on the percentages entered on page 1 of this form.

Employee Name	Enter the employee name from page 1.
Employee Identification Number	Enter the employee identification number from page 1.

Allocated Regular Wage	Multiply the regular wage on page 1 by the time percentage from page 1 to arrive at the total for allocated salary / regular wage to each activity or program path for each employee. The total non-solid waste activity must also be allocated in order for there to be a zero variance.
Total Salary / Regular Wage Allocation	The total for each employee must equal the applicable regular wage recorded on page 1 of this form. <i>The allocation for non-solid waste activity will not be forwarded to any full cost form; it is used to verify that all time for each employee has been identified. Enter the total allocation for each activity or program path (i.e., exclusive of the non-solid waste activity) on the appropriate Summary Form.</i>
Variance	Calculate the variance by subtracting the employee's salary / regular wage from page 1 from the total allocated salary / regular wage on page 2 for the applicable employee. The result should be zero; if it is not, recalculate the allocation.
Current Benefit Rate	A current benefits percentage should be used for this multiplier. The simplest benefit rate may be calculated by establishing a ratio between employee benefits and the related salary and wages amounts. This may be calculated using budgeted amounts or actual amounts. Any reasonable benefit rate based on the government's individual practices and assumptions may be used. <i>Note that this percentage is directly entered by the form preparer; it is not automatically calculated.</i>
Benefit Allocation	The allocated salary / regular wage must be used to calculate the amount of employee benefits to include in the cost of services. The benefits percentage should be multiplied by the total salary/regular wage allocation and the result entered in these columns. Enter the total benefit allocation on the appropriate Summary Form.

Form – A, Page 3

Section 2 – Overtime Wage Allocation

This section is used to calculate the overtime wage allocations based on the percentages entered on page 1 of this form.

Employee Name	Enter the employee name from page 1.
Employee Identification Number	Enter the employee identification number from page 1.

Allocated Overtime Wage	Multiply the overtime wage from the appropriate field on page 1 by the time percentage for each activity or program path from page 1 to arrive at the total allocated overtime wage to each activity or program path for each employee.
Total Overtime Wage Allocation	The total for each employee should equal the overtime wage recorded on page 1 of this form.
Variance	Calculate the variance by subtracting the employee's overtime wage from page 1 from the total overtime wage allocated on page 2 for that employee. The result should be zero; if it is not, recalculate the allocated overtime wage.
Total Overtime Wage Allocation	This is the total of the allocated overtime wage for each activity or program path. Forward the total to the applicable Summary Form of the particular activity or program path you are costing. <i>The overtime allocation for non-solid waste activity will not be forwarded to any full cost form; it is used to verify that all overtime for each employee has been identified. Enter the total overtime allocation for each activity or program path (i.e., exclusive of the non-solid waste activity) on the appropriate Summary Form.</i>
Prep By:	The initials of the person preparing this report.
Rev By:	The initials of the person reviewing this prepared report.
App By:	The initials of the person responsible for releasing the final cost information to interested parties.

Salaries, Wages and Benefits Allocation

Name of Government: _____
 Name of Activity: _____
 For the Period Ended: _____

Section 1 - Salary / Regular Wage and Benefits Allocation

Employee Name	Employee Identification Number	Program Path					Non-Solid Waste Activity	Total Allocation	Variance
		Landfill Facility	Recycling Facility	Composting Facility	Waste - to-Energy Facility	Other Solid Waste Facility			
		\$	\$	\$	\$	\$	\$	\$	\$
Total Salary / Regular Wage Allocation	To Summary Form								
Current Benefit Rate									
Benefit Allocation	To Summary Form								

Section 2 - Overtime Wage Allocation

Employee Name	Employee Identification Number	Program Path					Non-Solid Waste Activity	Total Allocation	Variance
		Landfill Facility	Recycling Facility	Composting Facility	Waste - to-Energy Facility	Other Solid Waste Facility			
		\$	\$	\$	\$	\$	\$	\$	\$

Overtime Wage Allocation

=====	=====	=====	=====	=====	=====	=====	=====	=====
To Summary Form	To Summary Form	To Summary Form	To Summary Form	To Summary Form	To Summary Form			
=====	=====	=====	=====	=====	=====	=====	=====	=====

Prep by:
Rev by:
App by:

Employee Payroll and Time Accumulation

Name of Government: _____
 Name of Program Path: _____
 For the Period Ended: _____

Employee Name	Employee Identification Number	Account Code	Salary / Regular Wage	Overtime Wage	Activity					Non Solid Waste Activity	Total Time Allocation
					Collections	Transfer	Transport	Facility	Sales		
			\$	\$	%	%	%	%	%	%	%

Grand Total Wages

Salaries, Wages and Benefits Allocation

Name of Government: _____
 Name of Program Path: _____
 For the Period Ended: _____

Section 1 - Salary / Regular Wage and Benefits Allocation

Employee Name	Employee Identification Number	Activity					Non-Solid Waste Activity	Total Allocation	Variance
		Collections	Transfer	Transport	Facility	Sales			
		\$	\$	\$	\$	\$	\$	\$	
Total Salary / Regular Wage Allocation	To Summary Form								
Current Benefit Rate									
Benefit Allocation	To Summary Form								

The instructions are an integral portion of this form.

Employee Name	Employee Identification Number	Activity					Non-Solid Waste Activity	Total Allocation	Variance
		Collections	Transfer	Transport	Facility	Sales			
		\$	\$	\$	\$	\$	\$	\$	

Overtime Wage Allocation

To Summary Form	To Summary Form	To Summary Form	To Summary Form	To Summary Form	_____	_____	_____
					=====	=====	=====

Prep by: _____
Rev by: _____
App by: _____

Form – B, Debt Interest Accumulation and Allocation

Governments often borrow funds or enter into capital lease agreements to facilitate solid waste operations. This form will assist the government in collecting debt issue and capital lease information and allocating the cost of the debt issue or capital lease to the appropriate activities or program paths.

For purposes of full cost accounting, care must be taken in calculating the effects of long-term debt. Principal repayments should *not* be considered a component of cost. The cost of the assets purchased or constructed with debt proceeds is accounted for through depreciation (refer to Form-C, Depreciation of Capital Assets). If the principal repayments were costed, then costs associated with the asset would, in effect, be double-counted. The principal repayments are simply a cash flow issue, not a cost component. However, the *interest* associated with debt issuances *should be* identified as a cost of the solid waste activity or program path. This form is designed to capture and allocate interest costs associated with outstanding solid waste debt.

There are two versions of the form. One version allows identification of costs for activities allocated by program path. The other allows the opposite – identification of costs of program paths by activities. Choose the applicable form format based on the manner in which the accounting records (i.e., chart of accounts) is established. For example, are the solid waste departments maintained as activities or program paths (e.g., collections department or landfill department?). The instructions are identical for either version. The results of each will link to the appropriate Summary Form.

Field

Instructions

Form-B, Page 1 – Debt Interest Accumulation

	This form will assist the government in identifying the total interest payments related to solid waste operations. Percentages of allocation for the activities or program paths will also be identified.
Name of Government	Enter the name of the government for which this form is being completed.
Name of Solid Waste Activity or Program Path	This form will accommodate cost information for either activities or program paths. One form per activity or program path will be required.
For the Period Ended	Enter the period for which you are reporting. Because information for full costing for solid waste operations may have many uses, annual, semi-annual, and even monthly reporting may be requested.

Debt Issue or Capital Lease Description	Enter the description of the debt issue or capital lease, including the date of the issue. <i>Reminder: This information may be found on a debt schedule (e.g., note disclosures of recent audited financial statements), in-house amortization schedules, or official statements associated with the bond or debt offering.</i>
Account Code	Enter the general ledger account code used to record the actual debt service interest payments.
Total Interest Expense	<p>Enter the total interest expense for the current period being costed (e.g., semi-annually). This should be interest due, regardless if payment has actually been made. <i>Reminder: Amortization schedules must be interpreted carefully.</i></p> <p><i>Also, the interest expense should be adjusted to reflect the proper amortization of any applicable bond premiums or discounts associated with the debt issuance. Full accrual accounting concepts require that premiums and discounts are amortized over the life of the related debt. For full cost accounting purposes, this would include all debt, even that accounted as a liability of the general long-term debt account group. Therefore, the interest valuation for this field should be net of the appropriate amortization. Separate worksheets should be maintained to support the calculation and to provide an adequate trail.</i></p> <p>Refer to Form-D, Direct Operating Costs, for a full discussion on the proper treatment of debt issuance costs.</p>
Percentage Allocation To Activity or Program Path	<p>In some cases a government will issue debt to benefit more than one activity or program path. Often, debt issuances may be combined to include both solid waste and non-solid waste operations. Enter the percentage of the payments that relate to the repayment of proceeds that benefited a particular solid waste activity or program path. Management should be able to readily identify at least the approximate allocation between solid waste and non-solid waste and, further by activity or program path. <i>Note that this percentage is directly entered by the form preparer; it is not automatically calculated.</i></p> <p><i>For example, if only 75% of a \$ 2,000,000 bond issue was used to finance solid waste operations such as recycling, then 75% of the cost of the debt issue should be allocated to the recycling facility program path. The remaining 25% should be included in the other non-solid waste debt column to allow for total reconciliation of the interest costs.</i></p>

Total Interest % Allocation Adding across, each debt issue must total to 100% to reconcile that all interest costs associated with *any* debt issue that may have at least partial association with solid waste management operations have been allocated.

Form-B, Page 2 – Debt Interest Allocation

Issue Description	Enter the issue description from page 1 of this form.
Maturity Date	Enter the maturity date from page 1 of this form.
Interest Expense	Enter the total interest expense for the period from page 1 of this form.
Interest Allocation Portion	Multiply the period interest payments on page 1 by the percentage allocation to activity or program path calculated on page 1 and enter the result.
Total Interest Allocation	Enter the sum total of all interest allocations to assure that all of the interest cost has been allocated to an activity or program path. (This column total, as well as by debt issue, should match page 1.) <i>The interest on non-solid waste debt must be calculated even though it will not be forwarded to another schedule.</i>
Total Interest Per Activity or Program Path	The total of each activity or program path column should be entered on the appropriate Summary Form.
Variance	Subtract the total interest allocation on page 2 from the total interest expense on page 1 for each individual debt issue and enter the result in the variance column. The result should equal zero; if not, recalculate the allocation.
Prep By:	The initials of the person preparing this report.
Rev By:	The initials of the person reviewing this prepared report.
App By:	The initials of the person responsible for releasing the final cost information to interested parties.

Debt Interest Accumulation

Name of Government: _____

Name of Activity: _____

For the Period Ended: _____

Debt Issue or Capital Lease Description	Account Code	Total Interest Expense	Program Paths					Non Solid Waste Debt	Total Interest Allocation
			Landfill Facility	Recycling Facility	Composting Facility	Waste to Energy Facility	Other Solid Waste Facility		
		\$	%	%	%	%	%	%	
	<i>Grand Total</i>								

The instructions are an integral portion of this form.

Debt Interest Allocation

Name of Government:

Name of Activity:

For the Period Ended:

US EPA ARCHIVE DOCUMENT

Program Paths

Issue Description	Maturity Date	Interest Expense	Landfill Facility	Recycling Facility	Composting Facility	Waste to Energy Facility	Other Solid Waste Facility	Non Solid Waste Debt	Total Interest Allocation	Variance
		\$	\$	\$	\$	\$	\$	\$	\$	\$

Total Interest Per Program Path

Prep by: _____

Rev by: _____

App by: _____

Form – C, Depreciation of Capital Assets

Governments that use proprietary fund accounting (i.e., full accrual accounting) are required to calculate and report depreciation expense on all applicable fixed assets. Therefore, applicable depreciation expense could be entered into the appropriate Summary Form directly from a government’s system printouts (or manually generated information) for assets accounted for within proprietary funds that are associated with solid waste activities.

At the same time, many government operations are accounted for under the cash or modified accrual basis of accounting bases of accounting. As such, depreciation calculations are not internally generated. Usually, the costs of these asset acquisitions are charged to an expenditure account in full as they are purchased. However, for full cost accounting purposes, full accrual accounting for these assets should be implemented. In other words, the cost of the assets should be allocated over their useful life instead of being identified as full costs at the time of purchase. This form will provide a mechanism to capture depreciation expense for *all* capital assets used for any type of solid waste activity. Capital asset costs should *not* be included in cost accumulation of any of the other worksheet forms.

One form per activity or program path is needed to account for all of these capital assets. Once depreciation for each activity is calculated, then the amount can be allocated across the program paths. Or, once depreciation for each program path is calculated, then the amounts can then be allocated across activities. The depreciation must then be forwarded to the appropriate Summary Form.

<u>Field</u>	<u>Instructions</u>
Name of Government	Enter the name of the government for which this form is being completed.
Name of Solid Waste Activity or Program Path	This form will accommodate cost information for either solid waste activities or program paths.
For the Period Ended	Enter the period for which you are reporting. Because information for full costing for solid waste operations can have many uses, annual, semi-annual, and even monthly reporting may be requested.

Step 1: Calculation of Depreciation

Asset I.D. Number	Enter the identification number on the asset that the government has assigned to that asset. <i>For example: Bulldozer #102</i>
Description	Enter a brief description of the asset. <i>Special Note: Often, many new or expanding solid waste programs incur “up-front” development costs. These costs should be treated as a form of capital outlay and depreciated over the estimated life of the program being initiated. For purposes of this form, it is</i>

recommended that these costs be included in the “Depreciation by Years” section and clearly identified as up-front costs for the applicable programs.

Acquisition Date	Enter the acquisition date of the asset.
Asset VIN Number	If applicable, enter the asset’s vehicle identification number in this field.
Account Code	Enter the general ledger account code where the cash outlay was coded (i.e., what expenditure account number was the asset charged to when purchased?). If the asset was donated, or there was no capital outlay, so note within this field.
Total Valuation	<p>Enter the total cost to acquire the asset. If there was an outlay for this asset (which will most often be the case), the purchase price, as well as all costs incurred in getting the asset readied for use, should be the valuation basis. (It should be noted that any expected trade-in or salvage values should be netted against the purchase price and other associated outlays so as to subject only the net cost to depreciation.) If the asset was donated or acquired without any outlay on the part of the government, then the fair market value on the date of donation should be the valuation basis. <i>Remember to include all costs to get the asset ready for use such as transportation, installation, and set-up.</i></p> <p><i>Also, it should be noted that if any of the assets are only used for any solid waste activity part of the time (e.g., vehicles that are used 50% for solid waste and 50% for other governmental activities), then the valuation amount used for this worksheet should reflect only the appropriate percentage of the total asset’s value. Accordingly, if an asset is used part of the time for one activity or program path and part for another, the valuation amount should reflect only the appropriate percentage on each applicable activity or program path worksheet.</i></p>
Depreciable Life in Units	The capital assets used in solid waste operations can have their useful lives defined in a variety of ways. Many assets are depreciated based on years (or months) of service; others based on hours of usage (e.g., certain types of machines or equipment); still others based on mileage accumulations. This form is divided into three sections to allow separation of assets with differing depreciation bases. Multiple copies of this form will probably be necessary if a large number of assets are being depreciated.
Current Period Units	Enter the total units consumed by the asset in question for the current reporting period (e.g., number of months or one year)

Remember: If an asset was placed in service during only part of the period being costed, or if it became fully depreciated during part of the period, then this field should only identify the units being costed.

Current Period
Depreciation

Enter the result of the following calculation:

$(\text{Total Valuation}/\text{Depreciable Life in Units}) * \text{Current Period Units} = \text{Current Period Depreciation}$

Enter the sum of all individual fields of this column and forward the total(s) to Step 2 to further allocate the depreciation either across activities or program paths.

Accumulated
Depreciation To
Date

Accumulated depreciation for each asset is the current period's depreciation plus depreciation that has been taken on the asset in previous years. *Current period depreciation should cease to be calculated when this field equals the asset valuation field.*

Accumulated
Depreciation
Units To Date

Add the current period's units to the accumulated depreciation units column. This will be the total period of depreciation to date and will indicate when assets are approaching the end of their expected useful life. ***Current period depreciation should cease to be calculated when this field equals the depreciable life in units column.***

Step 2: Allocation of Depreciation By Activity/Program Path

Once depreciation has been calculated for each activity or program path, then those amounts can be further allocated. For example, if data was initially collected by activity, then the depreciation may be allocated across program paths; if the data was initially collected by program path, then the depreciation may be allocated across activities. Choose the appropriate portion of Step 2 to complete the allocation.

Allocation
Percentages per
Program Paths or
Activity

Enter the appropriate percentage allocation estimated for each program path or activity. *This amount is a direct entry – it is not a function of some other calculation.* The preparer should determine the appropriate percentages based upon a systematic and rational method. Separate documentation of the assumptions may be used. *As the assets that were identified and depreciated in Step 1 of this form were valued based on their relationship to solid waste activities, the allocation percentages should equal 100%.*

Total Current
Depreciation

Enter the appropriate sum totals of the depreciation calculated in Step 1 of this form, broken down into the three categories (i.e., in years, in hours, in miles).

Program Path/Activity Allocation Calculations	For each field, multiply the Total Current Depreciation by the appropriate allocation percentage. Enter the result in the field.
Total Allocations to Each Program Path/Activity	Sum each column and enter the results on the total line. <i>Each of these totals should then be carried forward to the appropriate Summary Form for the activities or program paths being costed.</i>
Prep By:	The initials of the person preparing this report.
Rev By:	The initials of the person reviewing this prepared report.
App By:	The initials of the person responsible for releasing the final cost information to interested parties.

Depreciation of Capital Assets

Name of Government: _____
Activity or Program Path: _____
For the Period Ended: _____

Step 1: Calculation of Depreciation

Capital Assets (including those considered "upfront costs") Depreciated in Years (e.g. Buildings, Equipment)

<u>Asset I.D. Number</u>	<u>Description</u>	<u>Acquisition Date</u>	<u>Asset/ VIN Number</u>	<u>Account Code</u>	<u>Total Valuation</u>	<u>Depreciable Life in Units</u>	<u>Current Period Units</u>	<u>Current Period Depreciation</u>	<u>Accumulated Depreciation To Date</u>	<u>Accumulated Depreciable Units To Date</u>
					\$			\$	\$	

Total Current Depreciation _____
To Step 2

he instructions are an integral portion of this form.

Capital Assets Depreciated in Machine Miles

Asset I.D. Number	Description	Acquisition Date	Asset/ VIN Number	Account Code	Total Valuation	Depreciable Life in Units	Current Period Units	Current Period Depreciation	Accumulated Depreciation To Date	Accumulated Depreciable Units To Date
					\$			\$	\$	

Total Current Depreciation
To Step 2

Step 2: Allocation of Depreciation by Activity/Program Path

Use This Section if Allocating Activities Across Program Paths

Types of Depreciation	Program Paths					Total Allocation
	Landfill Facility	Recycling Facility	Composting Facility	Waste to Energy Facility	Other Solid Waste Facility	
	<i>Allocation Percentages Per Program Path</i>					
	%	%	%	%	%	%
	Total Current Depreciation					
Capital Assets in Years	\$	\$	\$	\$	\$	\$
Capital Assets in Hours						
Capital Assets in Miles						
<i>Total Allocations to Each Program Path</i>						
	To Summary Form		To Summary Form		To Summary Form	

Use This Section if Allocating Program Paths Across Activities

Types of Depreciation	Activity					Total Allocation
	Collections	Transfer	Transport	Facility	Sales	
	<i>Allocation Percentages Per Activity</i>					
	%	%	%	%	%	%
	Total Current Depreciation					
Capital Assets in Years	\$	\$	\$	\$	\$	\$
Capital Assets in Hours						
Capital Assets in Miles						
<i>Total Allocations to Each Activity</i>						
	To Summary Form		To Summary Form		To Summary Form	

Prep by:
 Rev by:
 App by:

Form – D, Direct Operating Costs

Direct costs for solid waste operations are among the simplest type of costs to identify. Direct costs are those that are clearly and exclusively associated with solid waste operations. However, some direct costs, while associated with a solid waste operation, may be shared by different activities or program paths (e.g., advertising campaign costs that benefit the landfill, recycling and composting facilities). These are known as *assignable* direct costs. The first half of this form is used to capture simple direct expenditures by specific activity or program path. The second half of the form provides a mechanism to allocate the assignable direct costs.

There are two versions of the form. One version allows identification of costs for activities allocated by program path. The other allows the opposite – identification of costs of program paths by activities. Choose the applicable form format based on the manner in which the accounting records (i.e., chart of accounts) is established. For example, are the solid waste departments maintained as activities or program paths (e.g., collections department or landfill department?). The instructions are identical for either version. The results of each will link to the appropriate Summary Form.

<u>Field</u>	<u>Instructions</u>
Name of Government	Enter the name of the government for which this form is being completed.
Name of Solid Waste Activity or Program Path	This form will accommodate cost information for either solid waste activities or program paths. One form for activity or program path will be required.
For the Period Ended	Enter the period for which you are reporting. Because information for full costing for solid waste operations can have many uses, annual, semi-annual, and even monthly reporting may be requested.

Section 1 – Direct Costs

This section is for accumulation of direct costs that are *clearly* identifiable from the general ledger. For example, an entity’s accounting records may allow them to clearly distinguish advertising costs for the recycling path of the collections activity. Thus, the amount(s) may be entered directly on this form. Otherwise, Section – Assignable Direct Costs should be used when direct costs must be systematically allocated.

Account Description	Common descriptions have been provided to assist in identifying direct costs. Additional descriptive categories may be added as needed.
Account Code	Enter the general ledger account code(s) where the original cash outlay was coded (i.e., what expenditure account number(s) was charged?). <i>As there are numerous activities or program paths that are being costed, there will probably be numerous account numbers for each account (e.g., direct advertising costs for each activity or program path department).</i>

Actual Costs (*note that this is the last column*)

Enter the total expenditure(s) for each type of account for the period being costed from the general ledger. Note that capital outlay expenditures are *not* included herein. Refer to the instructions for Form-C, Depreciation of Capital Assets, for the proper treatment of capital outlays.

There are some actual direct costs *associated with solid waste functions* that cannot be identified directly in the general ledger that may need to be included, as follows indicated below. However, it should be noted that these types of costs should not be included if they are *clearly* immaterial. The entity's auditors may be able to assist in the calculation of these items if they are deemed to be material for inclusion.

Prepaid Items: The line item for prepaid costs must be separately calculated. Prepaid items most often include costs such as insurance premiums, rent and the like. Usually, these items are paid in advance to cover several accounting periods (e.g., months or years). However, for full cost accounting purposes, only the costs associated with the reporting period should be included. Therefore, it may be necessary to separately calculate the amount of prepaid costs applicable to the solid waste functions that *are associated with the period being costed*. Then, the appropriate amount should be entered into the applicable field on the form. Separate worksheets should be maintained to provide a trail of the calculation.

Debt Issuance Costs: Full accrual accounting requires debt issuance costs to be amortized over the life of the related debt. In funds where the cash or modified accrual bases of accounting are used, such costs are recorded as expenditures, in full, as they occur. For full cost accounting purposes, however, applicable issuance costs (i.e., those associated with solid waste activity debt) should be separately calculated to determine the amount associated with the period being costed. The appropriate amount should be entered into the applicable field on the form. Again, separate worksheets should be maintained to provide a trail of the calculation.

Purchases of Inventory: Inventory is accounted for on the consumption basis in the proprietary funds. Accordingly, expense costs are usually readily identifiable in the general ledger. However, inventory purchases in the governmental funds are usually recorded as expenditures when purchased. In other words, the general ledger expenditure account does *not* differentiate between purchase and consumption. For full cost accounting purposes, inventory expensed as purchased should be converted to the consumption method. Separate calculations should be maintained to identify the *consumption* of inventory in those funds that report on the cash or

modified accrual basis of accounting. Only the cost of the items *consumed* during the reporting period, and associated with the solid waste functions, should be included in the applicable field on this form. This information should be maintained on separate worksheets to provide a trail of the calculation.

Increases in the General Long-Term Debt Account Group (GLTDAG): The GLTDAG is used to identify long-term liabilities associated with the governmental funds. These liabilities most commonly include bond and capital lease payables, compensated absences, unfunded pension contributions, claims and judgments, special termination benefits, and landfill closure and postclosure care costs. Cost data for the bond and capital lease payables, as well as landfill closure and postclosure care costs are identified within other forms (i.e., Form B-Debt Interest Accumulation and Allocation, and Form-G, Closure and Postclosure Care and Commissioning Costs, respectively). However, the other GLTDAG liabilities should be costed as they increase within the appropriate periods. These increases are not evident in the general ledger expenditure accounts of the governmental funds as they are recorded there only as they are actually expended, not as they are incurred. Accordingly, increases in GLTDAG liabilities (exclusive of the bond and capital lease payables and the closure and postclosure care costs) *that are specifically associated with solid waste activities* should be separately calculated and entered into the appropriate fields of this form. This will allocate the cost of the increases to the appropriate period for full cost accounting purposes. Separate worksheets should be maintained to provide a trail of the calculation.

Special Note on Hidden Costs: Occasionally, governmental entities will actually have hidden costs associated with solid waste operations. Hidden costs are the receipt of a privilege, service or asset that appears to be free (e.g., there was no cash outlay in their procurement), but actually does result in the loss of opportunity. For example, Government A may have negotiated free tipping fees for two years with Government B. However, Government A agreed to provide an interest-free loan to Government B for the same time period. While no cash exchanged hands, Government A actually incurred the lost opportunity costs of earning interest and Government B relinquished cash flow from the tipping fees they would have charged. These opportunity (or hidden) costs should be evaluated for possible inclusion in direct cost identification.

Another example of this would involve the receipt of free assets or free labor. Again, while there was no cash outlay, there is a hidden cost in that assets or services are being consumed. These latter examples are dealt with in Form-C, Depreciation of Capital Assets, and Form-I, Volunteer and Prison Labor.

Allocation of Direct Cost by Activity or Program Path	Using the appropriate column, enter the direct costs for each of the applicable activities or program paths. <i>Note: As these are direct costs they should be directly identifiable from the general ledger for each activity or path (i.e., the activities or paths are typically consistent with departmental sections of the general ledger).</i>
Total Actual Cost	Enter the sum total of all direct costs of the activity or program path (Line 1).
Total Direct Cost Allocation	Enter the sum total for each column. The grand total of all allocations must equal the total actual costs identified in the previous step. Forward the totals of each column, as well as the totals by type of direct cost to the appropriate Summary Forms for the activities or program paths being costed.

Section 2 - Assignable Direct Costs

It is more common for it to be necessary to estimate what percentage of a particular activity is associated with a program path, or vice versa. For example, assume the collections activity is being costed. The various direct costs for the entire collections activity is known, but the allocation by program path is desired. The amount of each direct cost for collections should be allocated to each appropriate program path based upon the preparer's (and management's) best judgment. Any systematic and rational allocation method is acceptable.

Account Description	Common descriptions have been provided to assist in identifying assignable direct costs. Additional descriptive categories may be added as needed.
Account Code	Enter the general ledger account code(s) where the original cash outlay was coded (i.e., what expenditure account number(s) was charged when it was incurred?). <i>As there are numerous activities or program paths that are being costed, there will probably be numerous account numbers for each account. Separate detail should be maintained to identify all of the account codes if the space provided within the worksheet is not sufficient.</i>
Allocation Percentage	The allocation of direct expenditures to activities or program paths must be based on a rational or systematic method. For example, the allocation could be based on the ratio of direct costs per activity or program path to total actual cost. However, management may develop any reasonable allocation percentage. <i>Note that this percentage is directly entered by the form preparer; it is not automatically calculated.</i>

Actual Cost	Enter the total expenditure for each type of account for the period being costed from the general ledger. (Refer to the full discussion of actual costs in Section 1 of this form's instructions.)
Allocation of Assignable Direct Costs By Activity or Program Path	Using the appropriate row, column, and allocation percentage, enter the direct costs for each of the applicable activities or program paths.
Total Actual Cost	Enter the sum total of all direct allocated costs for operations (Line 2).
Total Assignable Direct Costs	Enter the sum total for each column. The grand total of all allocations must equal the total actual expenditures identified in the previous step. Forward the totals of each column, as well as the totals by type of direct cost to the appropriate Summary Forms for the activities or program paths being costed.
Prep By:	The initials of the person preparing this report.
Rev By:	The initials of the person reviewing this prepared report.
App By:	The initials of the person responsible for releasing the final cost information to interested parties.

Direct Operating Costs

Name of Government: _____
 Name of Activity: _____
 For the Period Ended: _____

Section 1: Direct Costs

of Direct Costs by Program Path *

<u>Account Description</u>	<u>Account Code(s)</u>	<u>Landfill Facility</u>	<u>Recycling Facility</u>	<u>Composting Facility</u>	<u>Waste-to-Energy Facility</u>	<u>Other Facility</u>	<u>Actual Cost</u>
Advertising		\$	\$	\$	\$	\$	\$
Assessments							
Contract Services							
Insurance							
Licenses							
Maintenance							
Purchased Services							
Rental and Operating Lease Costs							
Software							
Supplies							
Telephone							
Utilities							
Worker's Compensation							
Other- _____							
Prepaid Items (See instructions)							
Debt Issuance Costs (See instructions)							
Purchases of Inventory (See instructions)							
Increases in GLTDAG (See instructions)							
Prison Labor (Per Form - I)							
Volunteer Labor (Per Form - I)							
Other Hidden Costs							

Total Actual Cost

Line 1 _____

Total Direct Cost Allocation

*Each individual field for the direct costs will be carried forward to the Summary Form.

Section 2: Assignable Direct Costs

<u>Account Description</u>	<u>Account Code(s)</u>	<u>Actual Cost</u>	<u>Landfill Facility</u>	<u>Recyclables Facility</u>	<u>Composting Facility</u>	<u>Waste-to-Energy Facility</u>	<u>Other Facility</u>
	Allocation Percentage		<input type="text"/> %	<input type="text"/> %	<input type="text"/> %	<input type="text"/> %	<input type="text"/> %
Advertising		\$	\$	\$	\$	\$	\$
Assessments							
Contract Services							
Insurance							
Licenses							
Maintenance							
Purchased Services							
Rental and Operating Lease Costs							
Software							
Supplies							
Telephone							
Utilities							
Worker's Compensation							
Other- _____							
Prepaid Items (See instructions)							
Debt Issuance Costs (See instructions)							
Purchases of Inventory (See instructions)							
Increases in GLTDAG (See instructions)							
Prison Labor (Per Form - I)							
Volunteer Labor (Per Form - I)							
Other Hidden Costs							

Total Actual Cost _____ Line 2

Total Assignable Direct Costs _____

 To Summary Form To Summary Form To Summary Form To Summary Form To Summary Form

Prep by:
 Rev by:
 App by:

Direct Operating Costs

Name of Government: _____
Name of Program Path: _____
For the Period Ended: _____

Section 1: Direct Costs

Allocation of Direct Costs by Activity *

<u>Account Description</u>	<u>Account Code(s)</u>	<u>Collections</u>	<u>Transfer</u>	<u>Transport</u>	<u>Facility</u>	<u>Sales</u>	<u>Actual Cost</u>
Advertising		\$	\$	\$	\$	\$	\$
Assessments							
Contract Services							
Insurance							
Licenses							
Maintenance							
Purchased Services							
Rental and Operating Lease Costs							
Software							
Supplies							
Telephone							
Utilities							
Worker's Compensation							
Other- _____							
Prepaid Items (See instructions)							
Debt Issuance Costs (See instructions)							
Purchases of Inventory (See instructions)							
Increases in GLTDAG (See instructions)							
Prison Labor (Per Form - I)							
Volunteer Labor (Per Form - I)							
Other Hidden Costs							
<i>Total Actual Cost</i>							Line 1
<i>Total Direct Cost Allocation</i>							

*Each individual field for the direct costs will be carried forward to the Summary Form.

Section 2: Assignable Direct Costs

<u>Account Description</u>	<u>Account Code(s)</u>	<u>Actual Cost</u>	<u>Collections</u>	<u>Transfer</u>	<u>Transport</u>	<u>Facility</u>	<u>Sales</u>
	Allocation Percentage		<input type="text"/> %	<input type="text"/> %	<input type="text"/> %	<input type="text"/> %	<input type="text"/> %
Advertising		\$	\$	\$	\$	\$	\$
Assessments							
Contract Services							
Insurance							
Licenses							
Maintenance							
Purchased Services							
Rental and Operating Lease Costs							
Software							
Supplies							
Telephone							
Utilities							
Worker's Compensation							
Other- _____							
Prepaid Items (See instructions)							
Debt Issuance Costs (See instructions)							
Purchases of Inventory (See instructions)							
Increases in GLTDAG (See instructions)							
Prison Labor (Per Form - I)							
Volunteer Labor (Per Form - I)							
Other Hidden Costs							

Total Actual Cost

Line 2

Total Assignable Direct Costs

To Summary Form

To Summary Form

To Summary Form

To Summary Form

To Summary Form

Prep by:
Rev by:
App by:

Form – E, Indirect Operating Costs and Allocation Methods

Solid waste operations are supported in part by the same departments that provide services to the government in general. The costs incurred by departments such as accounting, billing, budgeting, data processing, payroll, purchasing and risk management, to name a few, certainly include amounts that should be borne by the solid waste division. Such costs are commonly referred to as indirect (or shared) costs. Obviously, indirect cost is an important piece of the full cost accounting puzzle.

While there are a variety of acceptable allocation options for indirect (or shared costs), this form provides governments with two common allocation methods – the *budget method* and the *personnel method*. The budget method is based on the share of the solid waste budget as it relates to the total budget; the personnel method is based on the number of solid waste function employees as they relate to the government’s total employee pool. Step 2 of this form addresses the budget method; Step 3 addresses the personnel method. Each method provides a mechanism to capture costs by activity or program path. There is also the flexibility to sub-divide. For example, this form allows for indirect costs to be allocated by activity. Those allocated costs can then be further allocated by program path. Obviously, the sub-division could also initially be done by program path and then allocated to activity. **Only one method (i.e., budget or personnel) should be used and the one chosen by the governmental entity should be used consistently.**

Another option that governments may employ, at least partially, is the development of specific allocation percentages for individual types of indirect costs. For example, the allocation of building maintenance costs based on square footage ratios (e.g., square footage related to solid waste activities as a ratio to total square footage less that devoted to building maintenance); vehicle maintenance based on vehicle ratios; and purchasing based on ratios of purchase orders issued. This form may be adapted to develop as many different allocation ratios as is deemed necessary.

<u>Field</u>	<u>Instructions</u>
Name of Government	Enter the name of the government for which this form is being completed.
For the Period Ended	Enter the period for which you are reporting. Because information for full costing for solid waste operations can have many uses, annual, semi-annual, and even monthly reporting may be requested.

Step 1 – Identify Specific Actual Indirect Costs

This step will identify *all* costs of government support services – those that provide support and services that serve all departments and operations of the local government, including the solid waste operations. Once that total amount is established, the following steps will provide mechanisms to identify how much of those costs should be allocated to solid waste operations.

It should be noted that some of the items identified on this form as potential indirect costs may, in some governmental entities, represent direct costs. If this is the case, care should be taken that costs are not double-counted between direct and indirect classifications.

Description	Common descriptions have been provided to assist in identifying allocable indirect costs. Additional descriptive categories may be added as needed.
Account Code(s)	Enter the general ledger account code(s) where the original cash outlay was coded (i.e., what expenditure account number(s) was charged?). <i>Note: Costs in some of these categories may actually be recorded in numerous accounts, possibly in different funds. All applicable accounts should be included and clearly identified. Manually generated support sheets may be needed to maintain a trail of the multiple account codes that were added together.</i>
Actual Cost	Enter the total expenditure from the general ledger for each of the applicable indirect costs (often referred to as “central services departments”). <i>Note: Central services departments are those that benefit all governmental operations and are treated as indirect (or shared) costs. Also remember that these amounts may be in more than one fund type.</i>
Total Indirect (or Shared) Costs Subject to Solid Waste Allocation	Enter on line 1 the sum of all identified actual costs.

Step 2 –Identify the Allocation Percentage for Indirect Expenditures – Budget Method

Step 1 identified the total indirect costs for all government support services. If the budget method is being used, a proper allocation percentage must be used to extrapolate the portion of these total indirect costs that should be attributable to solid waste operations. Depending on the detail available in the entity’s accounting records, information may be identified by either activity or program path.

Total Budget - All Funds (Line A)	Enter the total budget for the general government. In most cases, this will be budget for the entire government.
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Total Budgeted Indirect Costs - All Funds (Line B)

Enter the total amount of *budgeted* indirect costs (i.e., those that provide “central services” for all, or most all, governmental activities) for the government on line B. This should be the total budget for all accounts used or identified in Step 1 of this form. ***Remember: If the solid waste budgets are reported in multiple funds, the multiple budget items in those funds should also be added together to arrive at the correct total. Manually generated support sheets may be needed to maintain a trail of the multiple budget items that were added together.***

Total Budget Net of Central Service Providers (Line C)

This field is the difference between the total *budget* for the entity **less** the total *budget* for the same accounts identified as indirect (or shared) costs in step 1 of this form. Enter the result of this simple subtraction calculation in this field.

Total Budget For Solid Waste Operations (Line 2)

Enter the total *budget* amount for all solid waste operations on this line. This field will be the numerator used in the calculation for the allocation percentage. ***Remember: If the budgeted amounts are reported in multiple funds, the multiple budget items in those funds must also be added together to arrive at the correct total. Manually generated support sheets may be needed to maintain a trail of the multiple budget items that were added together.***

Total Budget Net of Central Service Providers (Line 3, which equals Line C)

This field will be the denominator used in the calculation for the allocation percentage. ***This amount was identified in Line C above.***

Allocation Percentage (Line 4)

Calculate the percentage by dividing Line 2 by Line 3.

Allocable Indirect Costs (Line 5)

Calculate the amount of indirect costs attributable to total solid waste operations by multiplying the allocation percentage (Line 4) by total indirect costs (Line 1, which was identified in Step 1).

Step 3 – Identify the Allocation Percentage for Indirect Expenditures – Personnel Method

Step 1 identified the total indirect costs for all government support services. If the personnel method is being used, a proper allocation percentage must be used to extrapolate the portion of these total indirect costs that should be attributable to solid waste operations. Depending on the detail available in the entity’s accounting records, information may be identified by activity or program path.

Total Number of Governmental Entity Employees (i.e., full-time equivalents) of all Government Programs (Line D)	Enter the total number of governmental entity employees (i.e., full-time equivalents). This number should be supported by payroll system/human resource records of the governmental entity.
Total Number of Employees (i.e., full-time equivalents) Associated with the Indirect Cost Functions (Line E)	Enter the number of employees associated with the indirect cost functions (i.e., number of employees associated with the costs identified in Step 1 of this form). This number should be supported by payroll system/human resource records of the governmental entity.
Total Net Number of Governmental Employees (Line F)	This field is the difference between the total number of employees for all government programs (Line D) less the total number of employees associated with the indirect cost functions (Line E). Enter the result of this simple subtraction calculation in this field.
Total Number of Employees for Solid Waste Operations (Line 6)	Enter the total number of employees for all solid waste operations on this line. This field will be the numerator used in the calculation for the allocation percentage.
Total Net Number of Governmental Employees (Line 7, which equals Line F)	This field will be the denominator used in the calculation for the allocation percentage. <i>This amount was identified in Line F above.</i>
Allocation Percentage (Line 8)	Calculate the percentage by dividing Line 6 by Line 7.
Allocable Indirect Expenditures (Line 9)	Calculate the amount of indirect expenditures attributable to total solid waste operations by multiplying the allocation percentage (Line 8) by total indirect costs (Line 1, which was identified in Step 1).

Step 4 - Allocation Of Indirect Costs

Once the amount of indirect costs associated with solid waste operations have been identified, they should then be allocated to activities or program paths. In most cases, this will become a function of how the solid waste operations are accounted for by the governmental entity.

This section of the form provides a mechanism to allocate indirect costs either by activity or program path. **Also, if there are any predevelopment, site construction, decommissioning and closure/postclosure care costs, they may also be subject to indirect cost allocations.**

Accordingly, they have been specifically identified within the activity/program path fields to ensure inclusion, if applicable, but in most cases an indirect cost allocation in these areas will not be necessary.

Identify Activity or Program Path

Enter the names of the activities or program paths in the section provided.

Budget per Activity or Program Path *or* Number of Employees per Activity or Program Path

The information included in these fields will depend on the method of allocation being used. If the government is using the budget method, then *budget* amounts for each activity or program path should be entered. If the personnel method is being used, enter the *number of employees* (i.e., full-time equivalents) for each activity or program path. In either case, the total of these budget amounts (Line 10, which should equal Line 2) *or* the total number of solid waste employees (Line 11, which should equal Line 6) number of employees will be used to calculate the percentage of the next field .

% of Single Activity *or* Program Path to Total Activities *or* Program Paths

This field calculates the percentage of allocable indirect costs for each activity or program path (i.e., budget per individual activity divided by Line 10, or program path divided by Line 11).

Allocated Indirect Costs

This field multiplies the total allocable indirect costs identified in Step 2 (Line 5 *or* Line 9, depending on the allocation method being used) using the percentage of single activity *or* program path to total activities *or* program paths (i.e., from the immediately preceding step). The activity or program path totals will be carried forward to Step 5 of this form. The indirect cost burdens for predevelopment and closure activities will be carried either to Form – F, Predevelopment and Construction Costs, for predevelopment and site construction costs, or Form – G, Closure and Postclosure Care and Decommissioning Costs, for decommissioning and closure/postclosure care costs, if it is deemed appropriate to allocate indirect costs in these areas.

Step 5: Further Allocation of Indirect Costs

After the indirect costs have been allocated to *either* activities or program paths in Step 4, it is now possible to further allocate each initial allocation by the appropriate

program path or activity. For example, if the preparer has initially allocated indirect costs by activity, then each of those activity allocations maybe allocated across the appropriate program paths. Choose the applicable section of Step 5 to complete, depending on whether indirect costs were initially allocated by activity or program path in Step 4.

Allocation Percentages per Program Path/Activity	To further allocate the indirect costs, the preparer/management should determine appropriate allocation percentages. This can be determined in any systematic or rational manner. <i>Note that these percentages are direct entries – they are not functions of other calculations.</i>
Indirect Costs	The indirect costs allocated and identified in Step 4 (either by activity or program path) should be carried forward here to the appropriate allocation grid.
Allocation of Indirect Costs to Program Paths or Activities	Calculate this further indirect cost allocation by multiplying the indirect cost figure by the appropriate allocation percentage. Complete each applicable field. <i>Each of the individual allocations (NOT the totals) will be carried forward to the appropriate Summary Form.</i>
Prep By:	The initials of the person preparing this report.
Rev By:	The initials of the person reviewing this prepared report.
App By:	The initials of the person responsible for releasing the final cost information to interested parties.

Indirect Operating Costs and Allocation Methods

Name of Government: _____

For the Period Ended: _____

Step 1: Identify Specific Actual Indirect (or Shared) Costs.

<u>Description</u>	<u>Account Codes</u>	<u>Actual Cost</u>
Accounting		\$
Administrative		
Billing		
Budgeting		
Building Operations		
City Council		
City Engineer		
Clerical		
Data Processing		
Executive Oversight		
Finance Department		
Human Resources		
Information Systems		
Insurance & Risk Management		
Legal Department/Outside Counsel		
Management		
Outreach		
Payroll		
Personnel		
Planning Commission		
Publicity / Public Outreach		
Purchasing		
Records Management		
Solid Waste Advisory Council		
Workers Compensation (if not considered direct)		
Other - _____		
Other - _____		
Other - _____		

Total Indirect (Shared) Costs Subject to Solid Waste Allocations _____ Line 1

Step 2: Identify the Allocation Percentage - Budget Method

The Budget Method

Total Budget - All Funds	Line A	\$ _____	
Total Budgeted Indirect Costs - All Funds	Line B	\$ _____	
Total Budget Net of Central Service Providers	Line C	\$ _____	(Line A - Line B)
Total Budget For Solid Waste Operations	Line 2	\$ _____	
Total Budget Net of Central Service Providers	Line 3	\$ _____	
Allocation Percentage	Line 4	_____ %	(Line 2/Line 3)
Allocable Indirect Costs	Line 5	\$ _____	(Line 1 * Line 4)

Step 3: Identify the Allocation Percentage - Personnel Method

The Personnel Method

Total Number of Governmental Entity Employees	Line D	_____	
Total Number of Indirect Function Employees	Line E	_____	
Total Net Number of Governmental Employees	Line F	=====	(Line D - Line E)
Total Number of Employees - Solid Waste Oper.	Line 6	_____	
Total Net Number of Governmental Employees	Line 7	_____	
Allocation Percentage	Line 8	_____ %	(Line 6/Line 7)
Allocable Indirect Costs	Line 9	\$ _____	(Line 1*Line 8)

Step 4: Allocation of Indirect Costs

The Budget Method

<u>Identify Activity or Program Path</u>	<u>Budget per Activity or Program Path</u>	<u>% of Individual Activity or Program Path to Totals</u>	<u>Allocated Indirect Costs by Activity or Program Path</u>
	\$	%	\$ *
			*
			*
			*
			*
Predevelopment Costs			(To Form-F)
Site Construction Costs			(To Form-F)
Decommissioning Costs			(To Form-G)
Closure and Postclosure Care Costs			(To Form-G)

Total Budget for Activities or Program Paths
(equivalent to Line 2)

(Line 10)

Total Allocated Indirect Costs (Equivalent to Line 5)

*Each of these will be further allocated in Step 5.

The Personnel Method

<u>Identify Activity or Program Path</u>	<u>Employees per Activity or Program Path</u>	<u>% of Individual Activity or Program Path to Totals</u>	<u>Allocated Indirect Costs by Activity or Program Path*</u>
		%	\$ *
			*
			*
			*
			*
Predevelopment Costs			(To Form-F)
Site Construction Costs			(To Form-F)
Decommissioning Costs			(To Form-G)
Closure and Postclosure Care Costs			(To Form-G)

Total Number of Employees for Activities or Program Paths
(equivalent to Line 6)

(Line 11)

Total Allocated Indirect Costs (Equivalent to Line 9)

*Each of these will be further allocated in Step 5.

Step 5: Further Allocation of Indirect Costs

Use This Section if Allocating Activities Across Program Paths

		Program Paths*					
		Landfill Facility	Recycling Facility	Composting Facility	Waste to Energy Facility	Other Solid Waste Facility	Total Allocation
<i>Allocation Percentages Per Program Path</i>		%	%	%	%	%	%
	<u>Activities</u>	Indirect Cost					
	Collections	\$	\$	\$	\$	\$	\$
	Transfer						
	Transport						
	Facility						
	Sales						
<i>Total Allocations to Each Program Path</i>							

Use This Section if Allocating Program Paths Across Activities

		Activity*					
		Collections	Transfer	Transport	Facility	Sales	Total Allocation
<i>Allocation Percentages Per Activity</i>		%	%	%	%	%	%
	<u>Program Paths</u>	Indirect Cost					
	Landfill Facility	\$	\$	\$	\$	\$	\$
	Recycling Facility						
	Composting Facility						
	Waste to Energy Facility						
	Other Solid Waste Facility						
<i>Total Allocations to Each Activity</i>							

*Each individual field for the indirect cost will be carried forward to the Summary Form.

Prep by:	
Rev by:	
App by:	

Form – F, Predevelopment and Construction Costs

Landfills have extensive predevelopment and construction costs associated with them – environmental tests, legal considerations, physical construction. However, there are also “up-front” costs for materials recovery facilities, waste-to-energy facilities, transfer/collection centers and composting centers. Such costs are integral to the full cost accounting concept and they must be allocated over the operating life of the facility or program.

This form provides a mechanism to capture up-front costs, not only for landfill operations, but for any other predevelopment and construction costs incurred for other solid waste activities and programs. It is recommended that a separate form be used for each facility or program of the solid waste operation. For landfills, use the “landfill column”; for all other types of facilities, use the other column and identify the facility being costed on the dotted line. Clearly identify the name and location of the landfill or particular facility in Section 1 of this form. The costs that are identified within this form will then be forward to the appropriate Summary Forms for activities or program paths (the nature of this type of costs will more than likely limit this form to the Facility Activity or Landfill Program Path. It should be noted that this form will only need to be completed once for each activity or program path, unless capacity estimates or other assumptions change.

<u>Field</u>	<u>Instructions</u>
Name of Government	Enter the name of the government for which this form is being completed.
For the Period Ended	Enter the period-end for the year the site/facility predevelopment and construction costs were incurred.

Section 1 – Facility/Landfill Site Information

This section identifies the location and size of the facility or landfill operation being costed. *A separate form for each location should be completed. This applies to all solid waste management facilities (e.g., waste-to-energy site, recycling facility, composting facility), as well as each individual landfill site.*

Location Name	Enter the description the government uses for this location. .
Location Address	Enter the address of the facility or site.
Legal Description	Enter the legal description of the property.
Number of Acres	Enter the total number of acres. This information is simply provided on these forms to further describe the site in question. These fields <i>do not</i> figure into any calculations and are not required. <i>Remember: In the case of a landfill the total usable acres for landfilling will be less than the total amount of land.</i>

Number of Cells	Enter the total number of sections or cells into which the landfill will be divided. This information is simply provided on these forms to further describe the site in question.
Estimated Capacity of Site	For landfills, enter the total amount of waste, in tons, that the site will physically hold. For other types of facilities, the estimated operating life (in years) should be included.
Other Descriptive Information	Identify any other pertinent information deemed important for the description of this facility or landfill site.

Section 2 - Facility/ Landfill Site Predevelopment Costs

Most of the predevelopment costs are easy to identify as they match the outlay required at the time to acquire the service or the asset. For example, legal fees, engineering costs, design fees, and the like are usually traceable to invoices and cash outlays for these services. However, some predevelopment costs may not have required a cash outlay. The most common example is when a government has land donated or deeded by a third party for use as a landfill or for the site of some other solid waste operation facility. These assets still have a value and that value is consumed over time. Therefore, care should be taken that all cash outlay and non-cash outlay predevelopment costs are identified and included in the full cost accounting calculation.

It should also be noted that any site predevelopment costs apply to an entire site. As will be noted in the following section, site construction costs, especially as they relate to landfills, may apply only to the actual cells constructed.

This section requires several different types of information for each identified cost. Specifically, the applicable general ledger account codes, as well the associated cash outlays (or valuations) should be entered into the appropriate fields.

Program Predevelopment	Enter any costs incurred in planning the development of any type of solid waste program.
Facilities Predevelopment	Enter any costs incurred in planning the building of facilities, etc. <i>after</i> the overall program plans have been developed.
Land Acquisition	Enter the general ledger account code used to record the purchase of the site, as well as the amount paid. If for whatever reason several accounts were charged for the full purchase, all of the account codes and dollar amounts should be included. If there was no cash outlay for the site (e.g., it was donated or deeded to the government), the fair market value should be identified as the cost amount. The fair market value used should be consistent with the valuation in the government's fixed assets records. (It

should also be noted that while land itself is generally not subject to depreciation, landfills in fact are depreciable over their useful life. Therefore, landfill sites would be included as a depreciable asset in Form-C, Depreciation of Capital Assets.)

Other Facilities Predevelopment Costs	Enter in the general ledger account codes and cost amounts for the remainder of this section in the appropriate fields. These costs include, but are not limited to, legal, engineering, design, and testing fees, as well as costs incurred for environmental studies.
Indirect (or Shared) Costs	There are indirect (or shared) costs that may need to be associated with the predevelopment and construction activity. These were calculated, if applicable, as part of the allocation of indirect costs on Form – E, Indirect Operating Costs and Allocation Methods. Enter within this field the results of the calculation of indirect costs related to the predevelopment costs identified in Form – E, Indirect Operating Costs and Allocation Methods.
Total Predevelopment Costs	Enter the total of all costs incurred for and associated with predevelopment on Line 1. This total will also be carried forward to the end of Section 3 of this form. <i>Note: If the predevelopment effort for this particular site is unsuccessful, this will be all the data for this site. Generally, the cost of an unsuccessful site is added to the cost of the successful siting. If no successful site is established, it is recommended that the cost be amortized over the life of the original expected life of the facility.</i>

Section 3 – Site Construction Costs

Most site construction costs are relatively easy to identify. For budgeting purposes, most governments will maintain detailed (and separate) accounting and financial reporting information for major capital projects. In most cases, the construction activities will actually be accounted for in a separate capital projects fund. Accordingly, much of the information needed for Section 3 herein should be readily available.

Site Facilities	Enter the costs incurred to prepare the site for operations. Site facilities costs include, but are not limited to, the scale system, monitoring and office facilities, equipment storage facilities, roads and landscaping. All applicable general ledger account codes should be identified.
Physical Landfill	Enter the total costs incurred to establish the physical landfill. These costs include but are not limited to engineering and earthwork, installation of liners, the sediment system, groundwater-monitoring system, gas venting system, and the leachate collection system. Space is provided for other types of costs associated with the construction of a physical landfill. All applicable general ledger account codes should be identified.

Indirect (or Shared) Costs Again, the construction phase for any solid waste facility or landfill may need to include appropriate indirect (or shared) costs. These were calculated, if applicable, as part of the allocation of indirect costs on Form – E, Indirect Operating Costs and Allocation Methods.

Enter within this field the results of the calculation of indirect costs related to the site construction activities identified in Form – E.

Note: Do not include costs of capital assets on Form-F that are already included in other forms. For example, the cost of equipment would be included on Form-C, Depreciation of Capital Assets, and carried forward to the applicable Summary Forms from there.

Total Site Construction Costs Enter the total for all identified site construction costs on Line 2.

Total Predevelopment and Construction Costs Enter the sum total of Line 1 and Line 2. This total is now known as Line 3.

Expected Life in Units For landfills, enter on Line 4 the expected life of the landfill. The unit used to measure a landfill's anticipated useful life is typically the estimated number of tons to be processed during its life. This should be the same as the amount recorded in Section 1 (i.e., the, "estimated capacity of site"). For other solid waste facilities, the appropriate measurement would be the operating life of the facility, in years. Enter on Line 4 the expected life of the facility *in* years.

Cost per Unit of Life Enter the result of dividing the total predevelopment and construction costs (Line 3) by the total expected life in units (Line 4).

For landfills, the cost per unit must be multiplied by the number of tons processed at the landfill site for the period. This total is forwarded to the applicable Summary Form for the activity or program path containing the landfill site.

Prep By: The initials of the person preparing this report.

Rev By: The initials of the person reviewing this prepared report.

App By: The initials of the person responsible for releasing the final cost information to interested parties.

Predevelopment and Construction Costs

Name of Government: _____

For the Period Ended: _____

Section 1: Facility/Site Information

Location Name: _____
 Address: _____
 Legal description: _____
 Number of acres: _____
 Number of cells: _____
 Estimated capacity of site (tons or years): _____
 Other descriptive information: _____

Section 2: Program and Facilities Predevelopment Costs:

	<u>Account Code</u>	<u>Landfill Actual Cost</u>	<u>Facility Actual Cost</u>
<u>Program Predevelopment</u>			
Public Hearings		\$	\$
Public Outreach and Education			
<u>Facilities Predevelopment</u>			
Land acquisition			
Legal fees			
Licensing and Permit Fees			
Engineering			
Design			
Environmental Studies			
Groundwater and Other Testing			
Other - _____			
Indirect (or Shared) Costs (AS PER FORM E)			
<i>Total Program and Facilities Predevelopment Costs</i>		Line 1 _____	Line _____

Section 3: Site Construction Costs

	<u>Account Code</u>	<u>Landfill Actual Cost</u>	<u>Facility Actual Cost</u>
<i>Site facilities</i>			
Scale system installation		\$	\$
Monitoring/office facilities			
Equipment storage facilities			
Roads			
Landscaping			
Other construction costs			
<i>Physical Landfill</i>			
Engineering			
Earthwork, landfill and sediment lakes			
Liner installation			
Groundwater monitoring installation			
Leachate collection system installation			
Gas venting system installation			
Other physical landfill systems installation			
Indirect (or Shared) Costs (AS PER FORM E)			
<i>Total site construction costs</i>		Line 2 _____	Line 3 _____
<i>Total Predevelopment and Construction Costs</i>		Line 3 _____	Line 4 _____
<i>Expected Life In Units</i>		To Summary Form	To Summary Form
<i>Cost Per Unit Of Life</i>		Line 4 _____	Line 5 _____

Prep by:

Rev by:

App by:

Form-G, Closure and Postclosure Care and Decommissioning Costs

This form facilitates the collection of data for the closure or decommissioning of solid waste sites and facilities. While this type of activity is most commonly associated with landfill sites, there are circumstances where closure or decommissioning occurs with other types of solid waste management sites. Accordingly, this form may be used for either situation. One form should be used for each individual landfill site or other facility location.

The responsibility for the care and monitoring of a governmental solid waste landfill extends far beyond the time the landfill is actually in operation. State and federal regulations require that the landfill site be monitored for 30 years after the landfill stops accepting waste and ceases active operations. The United States Environmental Protection Agency (EPA) established closure requirements for governmental landfills in 1991. Accordingly, the Governmental Accounting Standards Board (GASB) issued an accounting and financial reporting pronouncement in 1993 in accordance with the EPA rules, as well as others in the industry that are applicable. GASB Statement No. 18, *Accounting for Municipal Solid Waste Landfill Closure and Postclosure Care Costs*, requires that estimated and actual costs associated with the closure and postclosure care activities be identified and recognized by the time that the landfill ceases waste acceptance. This form follows the guidance in both the EPA guidelines, as well as the GASB pronouncement, in calculating these costs.

It is recommended that the decommissioning of other solid waste facilities such as recycling centers, transfer stations, and materials recovery stations be estimated in current dollars each year and recognized in the same fashion as closure and postclosure costs.

This form should only be used for identifying closure, postclosure and decommissioning costs. The costs of regular day-to-day operations should be identified with the other appropriate forms.

<u>Field</u>	<u>Instructions</u>
Name of Government	Enter the name of the government for which this form is being completed.
Location Name	Enter the description the government uses for this site or facility. If this is a landfill, the description should be consistent with the site permit. If the government has more than one landfill site, a description should be used that differentiates it from other locations.
Cell Number	If the form is being completed for a landfill operation, enter the specific cell number for which closure and postclosure costs are being estimated.
For the Period Ended	Enter the period for which you are reporting. Because information for full costing for solid waste operations can have many uses, annual, semi-annual, and even monthly reporting may be requested.

Decommissioning
Costs

This section of the form is used to identify decommissioning costs for solid waste management sites *other than landfills*.

Estimate the cost that will be incurred for such items as razing buildings, dismantling and disposal of equipment, final inspection and landscaping for the actual decommissioning.

Included within these costs should be an appropriate allocation of indirect (or shared) costs for the decommissioning activities. These were identified as part of the allocation of indirect costs on Form – E, Indirect Operating Costs and Allocation Methods. Enter within this field the results of the calculation of indirect costs related to the decommissioning of sites identified on Form – E.

Equipment and
Facilities Cost

This section should be used to estimate the costs of equipment that will be installed (and facilities that are expected to be constructed) near or after the date the landfill stops accepting solid waste and during the postclosure period. Types of costs may include gas monitoring and collection systems, stormwater management systems, groundwater monitoring wells, and leachate treatment facilities.

These costs should be entered on the appropriate line items identified on the form, or the specific description of the type of cost may be modified to more closely reflect the nature of the anticipated cost.

Final Cover Cost

Enter the estimated cost of the final cover (or cap) expected to be applied near or after the date that the landfill will cease to accept solid waste.

Postclosure Care Cost

This section of the form identifies the cost associated with the monitoring of a closed site. Following the closure of a cell or landfill, the site must be monitored on an ongoing basis for a thirty-year period. These costs include maintenance of the final cover, monitoring of ground water, monitoring and collecting methane and other gases, collecting, treating and transporting leachate, repairing and replacing equipment and facilities, as well as the remedying or containment of environmental hazards. The most common types of postclosure care costs are identified on Lines 14-21 and include, but are not limited to, inspection of the final cover, groundwater and methane monitoring, leachate processing, and future remediation costs.

It may be necessary, depending upon the basis of accounting being used in the general ledger, to included some burden of indirect costs for the closure and postclosure care activities. These were identified, if applicable, as part of the allocation of indirect costs on Form – E, Indirect Operating Costs and Allocation Methods. Enter within this

field the results of the calculation of indirect costs related to the decommissioning of sites identified on Form – E, if any.

These costs should be entered on the appropriate line items identified on the form, or the specific description of the type of cost may be modified to more closely reflect the nature of the anticipated cost.

Estimated Total
Closure, Postclosure
Care and
Decommissioning Cost

This field should be the sum of all decommissioning, equipment and facilities, final cover, and postclosure care costs identified in the above sections.

Total Estimated
Capacity of Site

Enter the total capacity of the landfill site or cell in tons (the most common measurement). The total capacity of the site should agree to the total capacity identified on Form-F that was completed for this site. **Note: Each Form-F should have a corresponding Form-G. If one cell of the total landfill is being closed, indicate the cell and show the percentage of the total volume that is accounted for on this form.**

Cumulative Capacity
Used To Date

Enter the total volume of the landfill or cell used to date. This amount should be supported by Form-H, Solid Waste Processed by a Site or Facility.

Formula

Use the formula to determine the current amount of postclosure cost to be recognized in the current period.

Use the formula to determine the current amount of decommissioning cost to be recognized in the current period.

Assumptions Used

Use this section to document the assumptions used in your estimates of costs. **For Example: 10 replacement groundwater wells costing \$10,000 per well.**

Prep By:

The initials of the person preparing this report.

Rev By:

The initials of the person reviewing this prepared report.

App By:

The initials of the person responsible for releasing the final cost information to interested parties.

Closure And Postclosure Care And Decommissioning Costs

Name of Government: _____

Location Name: _____

Cell Number: _____

For the Period Ended: _____

<u>Decommissioning Costs</u>	<u>Landfill</u> <i>Estimated Cost</i>	Other - <u>Facilities</u> <i>Estimated Cost</i>
Raze Buildings	1	\$
Dismantle and dispose of equipment	2	
Final inspection & maintenance	3	
Landscaping	4	
Indirect (or Shared) Costs (AS PER FORM E)	5	
Other - _____	6	
<u>Equipment and Facilities Cost</u>		
Maintenance and upgrade of leachate treatment system	7	\$
Renewals and replacement of stormwater/erosion control	8	
Groundwater monitoring well replacement	9	
Landfill Gas-Flare System	10	
Methane monitoring well replacement	11	
Other - _____	12	
<u>Final Cover Cost</u>		
Final cap and vegetative cover for cell/cells	13	
<u>Postclosure Care Cost</u>		
Final cover inspection & maintenance	14	
Groundwater monitoring	15	
Leachate pre-treatment cost	16	
Leachate off-site processing - treated leachate	17	
Leachate off-site processing - untreated leachate	18	
Projected remediation costs/Establishment of Trust Funds	19	
Indirect (or Shared) Costs (AS PER FORM E)	20	
Other - _____	21	
<i>Estimated Total Closure and Postclosure Care Cost/Decommissioning Cost</i>	22	

Total Estimated Capacity of Site: _____ 23 (From Form-F for this location)

Cumulative Capacity Used to Date: _____ 24

Formulas:

Closure and Postclosure

$$\frac{\text{Estimated Total Closure and Postclosure Care Cost} \times \text{Cumulative Capacity Used}}{\text{Total Estimated Capacity of this Site}} \quad \text{less Amount previously recognized}$$

Current amount of postclosure cost from the formula above:

To Summary Form

Decommissioning

$$\frac{\text{Estimated Total Decommissioning Cost}}{\text{Remaining life of this Site}} \quad \text{less Amount previously recognized}$$

To Summary Form

Multiple copies of this form should be used for each cell being closed over the life of the landfill. Each cell's closure and postclosure care should be accounted for separately.

Assumptions used for closure and postclosure care and decommissioning costs:

Prep by: _____

Rev by: _____

App by: _____

Form-H, Solid Waste Processed by a Site or Facility

To facilitate cost allocation among activities and program paths, a record of the total quantity of solid waste transported or processed is required. This form will assist the government in tracking the quantity and type of solid waste being processed at a given facility for a given program or activity. Individual copies of this form will need to be used for each site or facility.

<u>Field</u>	<u>Instructions</u>
Name of Government	Enter the name of the government for which this form is being completed.
Name of Site or Facility	Enter the name of the landfill site, recycling facility, yard waste site, or transfer station collecting the data.
Name of Solid Waste Activity or Program Path	Enter the solid waste activity or program path being costed.
For the Period Ended	Enter the period for which you reporting. Because information for full costing for solid waste operations can have many uses, annual, semi-annual, and even monthly reporting may be requested.
Arrival Time	Enter the time that the transport vehicle enters the scale area and the “full weight” is determined. This field is an optional entry, available to facilitate recordkeeping for the site or facility
Vehicle Identification Number	Enter the identification number of the transport vehicle. This is generally the VIN number. This field is an optional entry, available to facilitate recordkeeping for the site or facility.
Transportation Identification	Enter the name of the transport provider. This information is critical if the government allows external communities and governments to dispose of solid waste in the landfill. <i>This information will allow the government to calculate the capacity used by entities other than the government.</i>
Type of Waste	Use the codes at the bottom of the form to note the type of waste being processed by the site. <i>Note: Blanks have been left open to enter additional waste classifications if the site or facility processes other forms of waste.</i>
Weight Upon Entry	Enter the weight of the transport vehicle when full.
Weight Upon Exit	Enter the weight of the transport vehicle when empty.
Total Weight Delivered	This is the difference of “weight upon entry less weight upon exit. Enter the result in this column.

Grand Total Weight Received This is the sum total of all deliveries of solid waste to the collection site recorded on this form.

Prep By: The initials of the person preparing this report.

Rev By: The initials of the person reviewing this prepared report.

App By: The initials of the person responsible for releasing the final cost information to interested parties.

Solid Waste Processed by a Site or Facility

Name of Government: _____
 Name of Site or Facility: _____
 Name of Activity or Program Path: _____
 For the Period Ended: _____

Arrival Time	Vehicle Identification Number	Transportation Identification	Type of Waste *	Weight Enter	Weight Exit	Total Weight Delivered
-----------------	----------------------------------	----------------------------------	--------------------	-----------------	----------------	------------------------------

Grand Total Weight Received _____

* Note the following codes for type of waste processed.			
SW RM HW	Solid Waste Recyclable Material Hazardous Waste	CYW YW	Compost Yard Waste Yard Waste

Prep by: _____
 Rev by: _____
 App by: _____

Form-I, Volunteer and Prison Labor

Some governmental entities have the benefit of free volunteer and prison labor in their solid waste operations. Similar to donated assets, where there is no cash outlay involved, the free labor is a type of asset that is used by the solid waste functions and its value should be costed over the benefiting periods. This is an important aspect of full cost accounting. However, care should be taken in assessing whether such free labor is a true cost of the service. For example, would the labor actually be used or purchased if it was not being provided for free?

This form will assist in the tracking and reporting of non-employee labor contributed to the solid waste effort. One copy of the form should be completed for each activity or program path that is being costed initially. Then, those allocations can be further spread across the appropriate crossing activity or program path. For example, if the preparer initially identified costs for an activity, then those costs could be allocated in Step 2 across program paths.

Field

Instructions

Step 1: Identify Volunteer and Prison Labor Costs

Name of Government	Enter the name of the government for which this form is being completed.
For the Period Ended	Enter the period for which you are reporting. Because information for full costing for solid waste operations can have many uses, annual, semi-annual, and even monthly reporting may be requested.
Name of Activity or Program Path	Enter the name of the activity or program path being costed. <i>A separate form for each individual activity or program path being costed will need to be completed.</i>

Volunteer Labor

Name	Enter the name of the volunteer worker.
Worker Identification Number	Enter the identification number of the volunteer worker, if available or maintained.
Hours Worked	Enter the total number of hours worked by the volunteer during the reporting period.
Implied Wage	Enter an hourly wage to value the volunteers' service. The amount used to value volunteer services should be comparative to what the government would need to pay a person in an arm's length transaction for the same type of labor. If deemed material, this calculation may also include tax costs the government would incur if paying for this service. (Rarely would part-time workers receive other types of employee benefits, such as insurance, etc. It is usually acceptable to ignore those variables for volunteer labor.) In many cases, minimum wage paid to temporary summer laborers for the same type of work would be a good gauge of this amount.

Value of Service	Enter the result of multiplying the hours worked with the implied wage for the volunteer.
Total Value of Volunteer Service	Total all volunteer workers and forward the total to Step 2 of this form. <i>Remember that you should use a separate Form-I to track the volunteer labor that is considered a direct cost from the volunteer assignable direct labor. Refer to the instructions for Form-D for assistance in identifying the difference between true direct costs and assignable direct costs.</i>

Prison Labor

Name	Enter the name of the prison worker.
Worker Identification Number	Enter the identification number of the prison worker, if available or maintained.
Hours Worked	Enter the total number of hours worked by the prisoner.
Implied Wage	Enter an hourly wage to value the prisoners' service. The amount used to value prison labor services should be comparative to what the government would need to pay a person in an arm's length transaction for the same type of labor. If deemed material, this calculation may also include tax costs the government would incur if paying for this service. (Rarely would part-time workers receive other types of employee benefits, such as insurance, etc. It is usually acceptable to ignore those variables for volunteer labor.) In many cases, minimum wage paid to temporary summer laborers for the same type of work would be a good gauge of this amount
Value of Service	Enter the result of multiplying the hours worked with the implied wage for the prisoner.
Total Value of Inmate Service	Enter the sum total for all prison workers.
Cost of Law Enforcement Supervision	Enter any amount billed to supervise prison labor. In many cases the local sheriff will be asked to provide extra security for work details and will bill the government for these services.

Total Cost of Prison Labor Enter the sum of the total value of prison labor services and any additional cost of law enforcement supervision and forward the total to Step 2 of this form.

Remember that you should use a separate Form-I to track the prison labor that is considered a direct cost from the prison assignable direct labor. Refer to the instructions for Form-D for assistance in identifying the difference between true direct costs and assignable direct costs.

Step 2: Allocation of Costs to Activities/Program Paths

Once the costs for volunteer and prison labor for each activity or program path, then the costs may be further allocated across crossing activities or program paths.

Allocation Percentages Enter the appropriate allocation percentages for the program paths or activities. The percentages may be determined by the preparer/management using any systematic and rational manner. *Note that this is a direct entry – the percentages are not a direct function of any other calculation.*

Total Costs to be Allocated These costs were identified in Step 1 and carried forward to this step for the allocation.

Allocation of the Volunteer and Prison Labor Costs Enter the appropriate allocation of both the volunteer and prison labor costs by multiplying the costs to be allocated by the appropriate allocation percentages. *Each of the individual calculations will be carried forward to the appropriate Form-D, Direct Operating Costs.*

Prep By: The initials of the person preparing this report.

Rev By: The initials of the person reviewing this prepared report.

App By: The initials of the person responsible for releasing the final cost information to interested parties.

Volunteer And Prison Labor

Name of Government: _____
For the Period Ended: _____
Name of Activity or Program Path: _____

Step 1: Identify Volunteer and Prison Labor Costs

Volunteer Labor

<u>Name</u>	<u>Worker Identification #</u>	<u>Hours Worked</u>	<u>Implied Wage</u>	<u>Value of Service</u>
			\$	\$

Total Value of Volunteer Service _____
To Step 2

Prison Inmate Service

<u>Name</u>	<u>Worker Identification #</u>	<u>Hours Worked</u>	<u>Implied Wage</u>	<u>Value of Service</u>
			\$	\$

Total Value of Inmate Service _____

Cost of Law Enforcement Supervision _____

Total Cost of Prison Labor _____
To Step 2

Step 2: Allocation of Costs to Activities/Program Paths

Use This Section if Allocating Activities Across Program Paths

		Volunteer Labor	Prison Inmate Service	Total Allocations
<i>Total Cost to be Allocated (Per Step 1)</i>		\$	\$	\$
<u>Program Paths</u>	<u>Allocation Percentages</u>			
Landfill Facility	%	\$	\$	\$
Recycling Facility				
Composting Facility				
Waste to Energy Facility				
Other Solid Waste Facility				
Totals				

Each individual volunteer labor and prison inmate service allocation will go to Form-D (I.e., Activity by Program Path)

Use This Section if Allocating Program Paths Across Activities

		Volunteer Labor	Prison Inmate Service	Total Allocations
<i>Total Cost to be Allocated (Per Step 1)</i>		\$	\$	\$
<u>Activity</u>	<u>Allocation Percentages</u>			
Collections	%	\$	\$	\$
Transfer				
Transport				
Facility				
Sales				
Totals				

Each individual volunteer labor and prison inmate service allocation will go to Form-D (I.e., Program Path by Activity)

Prep by:
Rev by:
App by: