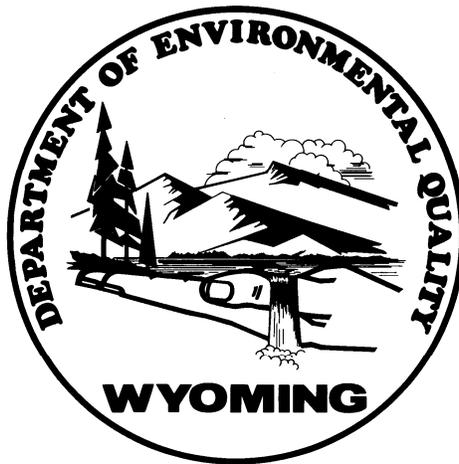


**Municipal Solid Waste
Landfill Monitoring Program
Grant Criteria**

**October 21, 2006
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What is the Landfill Monitoring Grant Program?

The Landfill Monitoring Grant Program was established in Senate File 0038 during the 2006 legislative session. Senate File 0038 added § 35-11-521 and § 35-11-522 to Article 5 of the Environmental Quality Act. The program provides partial reimbursement for the cost incurred by local governments to install monitoring systems at existing or closed municipal solid waste landfills. Operators of landfills that ceased receipt of waste before September 13, 1989, may be reimbursed for a portion of their groundwater sampling and analysis costs for a period of time sufficient to determine if their landfill has polluted groundwater.

What is the purpose of this document?

The purpose of this document is to answer questions and provide information about how local governments can apply for reimbursement under Article 5, § 35-11-521 and § 35-11-522 of the Environmental Quality Act. To read Senate File 0038, please visit the Wyoming Legislature's web page at <http://legisweb.state.wy.us>. For more information on reimbursement or solid waste management in general, please visit the Department of Environmental Quality (Department) web site at <http://www.deq.state.wy.us> and the Wyoming Solid Waste and Recycling Association (WSWRA) web site at <http://www.wswra.com>.

Who is eligible?

To be eligible for funding, you must be a local government entity who owns or is responsible for a municipal solid waste landfill.

What activities are eligible for funding?

W.S. 35-11-521 states that, subject to the availability of funds, the Director shall provide grants toward the costs of performing specified activities to local governmental entities for any project where a work plan has been submitted to the Department for work performed after July 1, 2005. Funding may be provided at existing or closed municipal solid waste landfills for the following activities:

- * Conducting surface or subsurface geophysical studies to determine proper monitor system placement and to provide an indication of the presence or absence of groundwater beneath and adjacent to the landfill;
- * Preparing plans for installation of systems to monitor or detect releases of subsurface pollutants from landfills;

- * Installing new monitor systems or upgrading existing monitor systems to meet standards for the systems established by the Department;
- * Collection and analysis of samples from monitor systems for a period of time sufficient to determine if there have been releases of subsurface pollutants from the landfill for landfills which ceased receipt of wastes before September 13, 1989.

This grant criteria document does not include a complete description of the monitor system standards established by the Department. Monitor system standards for municipal landfills are contained in Chapter 2 of the Solid Waste Rules and Regulations. If you have questions about monitor system standards, please contact the Department.

While additional work may be approved, ONLY plans, activities, work and/or portions of work that the Department determines are needed to meet standards established by the Department are eligible for reimbursement.

Why are local governments being asked to install groundwater monitoring networks at historical, closed and operating municipal landfills?

Municipal landfills could contain almost every substance known to man. Many of these substances pose a significant threat to human health and the environment. Substances leaking from landfills can enter and migrate with groundwater, presenting a threat to the environment and users of that groundwater. Landfill gas leaving unlined landfills can also contribute to groundwater pollution. Modern landfill designs include liners and leachate collection systems to contain waste and prevent the release of these substances. Unfortunately, landfills in Wyoming have historically not been constructed with liners and leachate collection systems so groundwater pollution is being detected at a growing number of landfill sites.

Groundwater monitoring data collected over a number of years indicates that at least one-third (1/3) of approximately sixty (60) municipal landfills currently being monitored in Wyoming have polluted groundwater to some extent. Pollution exceeds groundwater protection standards at fourteen (14) of these facilities. The rate at which groundwater contamination occurs is a function of many factors; most importantly, depth to groundwater, the type of soils between the bottom of the landfill and groundwater, and precipitation rates at the landfill. Because of this, the time needed to identify a release varies from one landfill site to another. Therefore, over time, the number of landfills with polluted groundwater is expected to increase.

The Department has identified approximately 135 municipal landfills in the state. Data from the State Engineer's office indicates that approximately 2,600 permitted water supply wells are located within one mile of these landfills. A detailed investigation by the Department found that monitoring networks are inadequate or nonexistent at

approximately 85% of these 135 municipal landfills. Unfortunately, without adequate monitoring data, we can only estimate how many of our landfills have polluted groundwater, how significant that pollution might be and whether or not nearby wells are threatened by landfill pollution. The Department has been working with local governments to install more wells and collect the data needed to determine the nature and extent of pollution from Wyoming's municipal landfills.

However, the cost of well installation and groundwater monitoring places a significant financial burden on local governments and slows progress toward understanding the nature of the problem. Fortunately, the legislature recognized these issues and passed Senate File 0038 which provides \$7,970,000.00 to help local communities collect the data needed to determine if their landfills have polluted groundwater. This legislation was supported by the Wyoming Solid Waste and Recycling Association (WSWRA) and the Citizens' Advisory Group on Solid Waste (CAG). These organizations have been studying solid waste issues in earnest since early in 2004.

What are the objectives of installing wells and monitoring groundwater?

The first objective is to install monitoring systems, consisting of a sufficient number of wells to monitor water from the uppermost aquifer which may be affected by leakage from the landfill. The system must be capable of monitoring background and downgradient water quality, with downgradient wells as close to waste as possible, but no more than 150 meters from the waste disposal boundary, unless the Administrator approves alternate well locations per Chapter 2 of the Solid Waste Rules and Regulations.

The second objective is to determine the nature and extent of a release. The Solid Waste Rules and Regulations require characterization of the nature and extent of a release when one or more constituents are detected at statistically significant levels above groundwater protection standards established by the Administrator.

For more detailed information regarding monitor system standards, please contact the Department and refer to Chapter 2 of the Solid Waste Rules and Regulations.

What reimbursement criteria will the Department evaluate?

Preference may be given to facilities working to achieve the first objective, especially when reimbursement funds are diminished. This is one reason why applicants are being asked to provide an estimate of the cost to implement their work plans. This information will help the Department estimate the total statewide cost and allow the most effective and equitable allocation of funds. The criteria considered may include, but not be limited to the following:

- * Compliance with approved work plans
- * Remaining funds
- * Whether or not pollution has been detected and if so, it's severity
- * Proximity to water supply wells in general
- * Number and proximity to downgradient water supply wells
- * Proximity and threats to surface water
- * Proximity to occupied buildings
- * Depth to groundwater
- * Whether or not the existing monitoring system meets standards established by the Department
- * The local Aquifer Sensitivity Rating provided by the Department's Water Quality Division
- * The cost charged by others conducting similar work

How much financial assistance might a local governmental entity receive?

Reimbursement is subject to availability of funds. Applicants might receive:

- * Up to 50% of eligible costs; or
- * Up to 75% of eligible costs under the following circumstances:
 - * The applicant is a municipality with a population of less than one thousand three hundred (1,300) according to the latest federal decennial census or located within a county where the three (3) year average of the total local government share of state sales and use tax per capita is less than 70% of the statewide per capita average; or
 - * The applicant is a county, solid waste disposal district, joint powers board, or special purpose district is located within a county with a total assessed valuation of less than two and one-half percent (2.5%) of the state's total assessed valuation.

What is the start date for eligibility?

Funds are available for work performed or initiated after July 1, 2005, provided the work has been or will be approved by the Department.

How will grant applications be considered for work conducted before these criteria were established?

Consideration will be given on a case-by-case basis to work performed before this guidance was prepared.

Will funds be provided before work is conducted?

No, funds will only be distributed after work has been completed and approved by the Department. However, if all work has been adequately completed and approved, reimbursement may be provided to local governments before payment has been made to consultants and contractors.

What funding options are available to local governments?

Local governments may choose to seek funding from the State Land and Investment Board (SLIB), from the Clean Water State Revolving Fund (SRF), or from conventional lending institutions.

How will the reimbursement application process work?

1. Local government entities will need to submit reimbursement requests, with supporting documents, to the Department following completion of each of the three main steps described below.
2. The Department will review the applications, determine eligibility, and provide recommendations for reimbursement to the Water and Waste Advisory Board (WWAB).
3. Following a public hearing, the WWAB will provide recommendations for making reimbursements to the Director of the Department.
4. The Director will award reimbursements in consideration of recommendations provided by Department staff and the WWAB.

What is the basic process for the installation of monitoring systems?

The process to install monitoring systems will consist of three steps including at least one subsurface investigation to install monitoring wells. Local governments will be able to apply for reimbursement for expenses following completion of each step. Additional investigations or phases may be needed if data indicates the need for more monitoring

wells. These expenses are also eligible for reimbursement, although all work is subject to the availability of funds.

Phase I (primary investigation):

- Step 1: Prepare a work plan
- Step 2: Conduct field work and prepare report
- Step 3: Monitor groundwater and prepare report – All landfills will need to sample and analyze groundwater after monitoring wells have been installed, but only landfills that ceased receipt of waste before September 13, 1989 are eligible for reimbursement, up to the applicable maximum, for the collection and analysis of samples.

Phase II+ (subsequent investigations - if necessary):

- Steps 1-3: Same as above

What is the detailed process for installing monitoring systems and applying for reimbursement?

Step 1: Prepare a work plan

The Department will contact you, if they have not already done so, to let you know whether or not you need to install monitoring wells. Much of this work will require the services of a qualified professional engineer or geologist. Therefore, at this time, you should consider implementing a competitive selection process to hire a qualified consulting firm. The Department strongly urges a competitive selection process as a cost containment measure. Please refer to the process outlined in the Wyoming Professional Services Procurement Act, W.S. 9-2-1027 through 9-2-1033. A copy of this Act may be found online at

<http://legisweb.state.wy.us/statutes/statutes.aspx?file=titles/Title9/Title9.htm> The Department's recommendation for reimbursement to the WWAB will take into consideration the relative cost of plan preparation, understanding that more complex sites require more complex and costly investigation plans. Document the process and prepare an explanation of why a particular consultant or consultants were selected. The Department will work with you and your consultant(s) to prepare a work plan. The plan needs to include a cost estimate for implementation of the plan, as well as a schedule for implementation.

After receiving written approval of your work plan from the Department, you may apply to the Department for reimbursement of the eligible expenses for work plan preparation, as applicable. A reimbursement request form, with a checklist for the information that

needs to accompany your application, will be provided to you by the Department. Information you provide with the application form will be reviewed by the Department and, if requirements have been met, a recommendation for reimbursement will be submitted to the WWAB. Following a public hearing, the WWAB will forward its funding recommendations to the Director of the Department who will award grants in consideration of Department staff and WWAB recommendations.

Step 2: Conduct field work and prepare report

Following written Department approval of your work plan, you will need to conduct the work specified in the plan. Unless this work was included in the initial competitive process, the Department strongly urges you to use a competitive bid process to select a qualified consultant(s) or contractor(s). Please refer to the process outlined in the Wyoming Professional Services Procurement Act: W.S. 9-2-1027 through 9-2-1033. The Department's recommendation for reimbursement to the WWAB will take into consideration the cost of the investigation relative to others conducted for similar work. Whether or not a competitive selection process is used, you should document the process and prepare an explanation of why a particular consultant(s) or contractor(s) was selected. After the field work is completed, an investigation report will need to be submitted to the Department for review and approval.

After receiving written approval of your investigation report from the Department, you may apply for reimbursement of the eligible expenses, as applicable. A reimbursement request form, with a checklist for the information that needs to accompany your application, will be provided to you by the Department. Information you provide with the application form will be reviewed by the Department and, if requirements have been met, a recommendation for reimbursement will be submitted to the WWAB. Following a public hearing, the WWAB will forward its funding recommendations to the Director of the Department who will award grants in consideration of Department staff and WWAB recommendations.

Step 3: Monitor groundwater and prepare report

The Department will work with you to establish a groundwater monitoring plan or modify the one you already have, using standards established by the Department under the Environmental Quality Act and the Solid Waste Rules and Regulations. The same consultant(s) or contractor(s) can be used for the groundwater collection as selected for the field work, or you may choose to select a different consultant or contractor. If you choose to select another consultant or contractor you should consider implementing a competitive selection process to hire a qualified consulting firm. Samples must be collected using procedures approved by the Department, and laboratory analytical methods and detection limits must comply with the standards described in Chapter 2 of the Solid Waste Rules and Regulations. You will need to collect a sufficient number of groundwater samples to determine if groundwater has been impacted. A statistical

evaluation of groundwater data may be necessary. If a groundwater impact is detected, statistical methods will be used to determine if groundwater protection standards have been exceeded. If groundwater protection standards have been exceeded, additional investigation and sampling may be required to determine the nature and extent of contamination. In general, a minimum of four independent samples will be needed from each well, however more may be necessary. The number of samples required is dependent on the nature of the data and the statistical method or methods selected, as appropriate to analyze the data.

Operators of landfills that ceased receipt of waste before September 13, 1989 are eligible for reimbursement for the collection and analysis of samples, up to the applicable maximum, for a period of time sufficient to determine if the landfill has polluted groundwater. The Department will reimburse operators for the cost of preparing and submitting the groundwater data, but not for any statistical analysis or data interpretation, since small (Type II) landfills are not required to conduct their own statistical evaluations. Operators of these facilities will need to provide documentation of eligibility on the application form provided by the Department.

To be eligible for full funding, samples must be collected using procedures approved by the Department. Laboratory analytical methods and detection limits must comply with the standards described in Chapter 2 of the Solid Waste Rules and Regulations. Reports and their contents must be submitted in a manner and format approved by the Department. Facilities eligible for sample collection and analysis reimbursement may submit an application when they submit the monitoring report for each sampling event.

A reimbursement request form, with a checklist for the information that needs to accompany your application, will be provided to you by the Department. Information you provide with the application form will be reviewed by the Department and, if requirements have been met, a recommendation for reimbursement will be submitted to the WWAB. Following a public hearing, the WWAB will forward its funding recommendations to the Director of the Department who will award grants in consideration of Department staff and WWAB recommendations.

What types of activities and expenses will be considered eligible for reimbursement?

Reimbursements are for time and materials only; therefore, payment will only be made for work actually performed at the rates/costs identified in the work plan. No payment will be made for services performed before the date of the Department's authorization, unless specifically identified in the work plan.

Non-labor costs chargeable to the work plan include sub-contractor's costs, disposable materials, equipment, and services directly required for the performance of the approved work.

The landfill owner/operator must establish and maintain a procedure for time and cost accounting that assures that direct labor hours and authorized direct costs are properly charged. These records need to be available to the Department for audit for a period of three (3) years after completion of the work. Invoices need to be submitted to the Department in an itemized spreadsheet format that delineates all claimed costs. Invoices need to provide adequate detail to account for all services rendered. Please remember to include detail for all items, such as mileage, per diem charges, and non-labor costs.

While a project or activity may be eligible for reimbursement, some of the costs associated with the activity may not be eligible for reimbursement. For clarity, please be aware that costs associated with the following items are NOT reimbursable:

- * All non-cash costs except:
 - Labor, materials, equipment, and services provided by the applicant, and used for project purposes, valued at reasonable, actual cost;
 - Labor, materials, equipment, and services provided to the applicant by others, at no cost to the applicant, used for project purposes and valued at reasonable, actual cost;
- * Costs for preparation or presentation of grant or loan applications for any source of funding, excluding this Landfill Reimbursement Request;
- * Costs for transportation, meals and lodging incurred anywhere away from the site of the project or Department offices;
- * Costs for furnishings;
- * Legal Fees;
- * Costs related to issuance of bonds;
- * Costs to establish and form special districts or joint powers boards;
- * Costs to select consultants or contractors;
- * Contingency costs;
- * Weather delays (short delays may be appropriate, please check with the Department);
- * Equipment delays;
- * Crew change charges;
- * General “down time”;
- * Costs for work NOT pre-approved by the Department;
- * Repetitive mobilization and/or de-mobilization charges;
- * Contractor work delays due to labor disputes or work stoppages;
- * Markup or handling charges will not be reimbursed. All overhead costs associated with negotiating subcontracts, managing subcontractors, insurance, purchase and storage of materials or supplies, etc. should be included in direct labor rates.

Customary work plan preparation expenses will be eligible for reimbursement, including:

- * Review of existing site information;
- * Meeting with Department and operator to discuss the scope of work;

- * Preparation of plan documents;
- * Assessment of potential geophysical methods and their usefulness at the site (not necessary at all sites);
- * Preparation of a site Health and Safety Plan (HASP).

Customary investigation expenses that are performed in accordance with a Department-approved work plan will be eligible for reimbursement, including:

- * Geophysical investigations;
- * Utility clearances (“locates”);
- * Well drilling, construction, and development (drilling needs to be invoiced by the foot or hour);
- * Surveying;
- * Drill rig mobilization and demobilization;
- * Preparation of an investigation report;
- * Field oversight by a qualified geologist or engineer, as appropriate;
- * Field monitoring (including health and safety monitoring during field activities);
- * Personal protective equipment (PPE);
- * Field supplies.

Customary sampling and analysis expenses will be eligible for reimbursement, including:

- * Labor, equipment, and material costs for the field work to collect samples
- * Conventional bailer sampling methods and equipment (funds shall not be used to purchase dedicated pumps and other permanent sampling devices)
- * Laboratory analytical charges
- * Reporting expenses

When evaluating which costs are eligible for reimbursement and the appropriate amount of reimbursement, the amount charged by others conducting similar work will be considered. All cost estimates and invoices must be itemized and detailed. Labor charges need to include rates and hours. Project supplies need to be listed in detail with clearly itemized quantities and costs. Mobilization and demobilization charges need to include details on mileage, hourly, or daily rates and quantities of each. Invoiced travel charges need to include dates, destinations, mileage and rates. Drilling/completion costs need to be estimated and billed by the hour or foot. Invoices need to include rates and actual footage/hours as well as specifics on the materials used. Invoices from subcontractors need to include a similar level of detail. Sampling and analysis conducted jointly for eligible and non-eligible facilities (in the case of multiple facilities sampled by a single local government entity) need to be broken out into eligible and non-eligible costs.

Reimbursement for the actual cost of communication items such as postage, photocopies, report covers, telephone, etc., is preferred. However, a “Communication Fee” no greater than 2-1/2% may be charged for these items if these costs are not included in standard

billing rates. The fee should be a standard billing practice of the consultant and be assessed on labor charges only.

The following mileage reimbursement standards apply to passenger cars, light trucks $\frac{3}{4}$ ton or less, and sport-utility vehicles (SUV's):

- * The Internal Revenue Service (IRS) mileage reimbursement rate applicable at the time work is conducted, or
- * A vehicle use fee of no more than \$80 per day, whichever is greater.

Consultants and their clients may agree to higher vehicle charges, but reimbursement for passenger cars, light trucks $\frac{3}{4}$ ton or less, and SUV's will be limited to the amounts above. Higher billing rates may be appropriate for 1 ton trucks, drill rigs and the like. Reimbursement recommendations for vehicles of this nature will take into consideration the cost charged by others conducting similar work.

What about in-kind services we conduct ourselves, without the assistance of a consultant?

Except as described above, work that local governments conduct using their own resources is eligible for reimbursement in the same manner as work conducted by consultants and outside contractors. Work must be performed using Department approved methods by properly trained personnel. A detailed and itemized list of work items and expenses will need to be submitted with other reimbursement request documents.

Field conditions aren't always predictable. What if I need to change my approved work plan during field work?

Any change that would increase the total project cost by more than 20% should not be implemented without prior Department approval. It's hard to anticipate every possibility, but changes such as deleting or adding a well, moving a well location, changing drilling methods, or not sampling a well would warrant prior Department approval. If you are unsure, call the Department when confronted with this problem so that agreement can be reached quickly.

What input do I have during the reimbursement process and what recourse do I have if I am not satisfied with the amount awarded to me by the Director of the Department?

In consideration of time needed for the Department's application review and WWAB public notice requirements, reimbursement recommendations will regularly be submitted to the WWAB by the Department. You may attend these meetings and provide input. If unsatisfied with the final reimbursement awarded to you by the Director, you may appeal the Director's final award to the Wyoming Environmental Quality Council in accordance with the Department's rules of practice and procedure.

What will come of all this work?

By June 30, 2010, the Department will evaluate all available groundwater monitor data from municipal solid waste disposal facilities and provide a report to the Joint Minerals, Business and Economic Development Interim Committee describing the extent to which such facilities cause or contribute to pollution of groundwater. The report will contain an estimate of the statewide groundwater remediation cost obligation faced by local governmental owners of such facilities and recommend one (1) or more means to fund those costs.

Where can I find more information?

For additional information, visit the Department of Environmental Quality's web site at <http://deq.state.wy.us/shwd/gwg/Index.asp>. You may also telephone the Department in Cheyenne (307-777-7752), Casper (307-473-3450), or Lander (307-332-6924).