

# Idaho Environmental Guide

A Resource for Local Governments



State of Idaho  
Department of Environmental Quality



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## Acknowledgments

Owyhee Mountains at sunset, photo courtesy of Adam Bussan.

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## Abbreviations, Acronyms, and Symbols

§	section (usually a section of federal or state rules or statutes)
CAFO	concentrated (or confined) animal feeding operation
DEQ	Idaho Department of Environmental Quality
EPA	US Environmental Protection Agency
IDAPA	refers to Idaho’s administrative rules
IDWARN	Idaho Water Area Response Network
IDWR	Idaho Department of Water Resources
IPDES	Idaho Pollutant Discharge Elimination System
LED	light-emitting diode
ISDA	Idaho State Department of Agriculture
LSAS	large soil absorption system
NAAQS	National Ambient Air Quality Standard
N-P	nutrient-pathogen
NPDES	National Pollutant Discharge Elimination System
PTC	permit to construct
PWS	public water system
QLPE	qualified licensed professional engineer
SDWA	Safe Drinking Water Act
SSDA	subsurface treatment and disposal system
TMDL	total maximum daily load
US	United States
UST	underground storage tank

## Executive Summary

Local government entities often have primary responsibility for wastewater, storm water, and drinking water systems, as well as solid waste disposal services and systems. These entities also share a mutual responsibility toward sustainable development and protection of air, land, and water.

Review this *Idaho Environmental Guide* before approving projects to understand the impacts to air, water, and/or land that could affect the health, welfare, and sustainability of your community. The guide can be used for environmental planning and land use projects related to the following:

- Air quality—Permit to construct, air toxics, burning and smoke management, fugitive dust, greenhouse gases, nonattainment and air quality alerts, and odor control
- Water quality—Drinking water, fire protection, groundwater quality protection, source water assessment and protection, surface water, and wastewater
- Waste management and remediation—Hazardous waste, household hazardous waste, medical and pharmaceutical waste, solid waste, and waste tires
- Special environmental concerns—Brownfields, concentrated animal feeding operations, construction activities, emergency response, mine sites, pesticides, petroleum storage and fueling, ponds, and salvage yards

Local government entities can implement rules, regulations, or ordinances in addition to the federal and state laws, rules, and regulations described in this guide. However, local government entities cannot enact regulations and ordinances inconsistent with state or federal rules, statutes, regulations, or permits. Local officials should be aware of the requirements that state and federal rules, statutes, and regulations impose.

The Idaho Department of Environmental Quality (DEQ) does not make land-use decisions, but DEQ's approval of activities under its regulatory authority are subject to local planning and zoning restrictions. Because projects may overlap local boundaries or affect areas outside of your jurisdiction, DEQ encourages local governments to collaborate on planning and land use projects.

# 1 Introduction

The *Idaho Environmental Guide* is a resource for local government officials to assist in managing a community's environmental responsibilities. Local government entities often own and have primary responsibility for wastewater and storm water systems, drinking water systems, and solid waste disposal services and systems, among other areas of environmental concern. Through planning and zoning actions, operational ordinances, and inspections, local governments also directly influence business development in their boundaries. Local governments share a mutual responsibility toward sustainable development and protection of air, land, and water.

This guide can be applied to environmental issues for strategic planning, but it does not summarize all state and federal rules and regulations. Consult this guide before approving projects to understand the impacts to air, water, and/or land that could affect the health, welfare, and sustainability of your community.

## 1.1 Coordination between Local Governments and DEQ

Local government entities can implement rules, regulations, or ordinances in addition to the federal and state laws, rules, and regulations described in this guide, but local government entities cannot enact regulations and ordinances inconsistent with state or federal rules, statutes, regulations, or permits. Local officials should be aware of the requirements that state and federal rules, statutes, and regulations impose.

## 1.2 Opportunities for Local Government Input

If a local government entity wants to change or comment on a state and/or federal permit, rule, regulation, or statute that impacts projects in Idaho, the local government entity may provide comments and suggestions during the public comment period before the rule, statute, regulation, or permit is issued.

## 1.3 Planning and Zoning

Planning and zoning is a local authority that the Idaho Department of Environmental Quality (DEQ) does not address. DEQ plays a complimentary role but does not make land-use decisions. DEQ approval of activities under its regulatory authority are still subject to local planning and zoning restrictions, which may be more or less limiting.

When projects overlap local boundaries or affect areas outside of your jurisdiction, DEQ encourages coordination with the corresponding local government. The [Local Land Use Planning Act](#) (Idaho Code § 67-65) outlines requirements for local governing boards to collaborate and cooperate on projects.

## 2 Air Quality

This section covers the following topics:

- Air permits to construct
- Air toxics
- Burning and smoke management
- Fugitive dust
- Greenhouse gases
- Nonattainment and air quality alerts
- Odor control

### 2.1 Air Permit to Construct

An air quality permit to construct (PTC) is required before constructing or modifying buildings, structures, or installations that emit or may emit pollutants into the air. According to the [Rules for the Control of Air Pollution in Idaho](#) (IDAPA 58.01.01), “No owner or operator may commence construction or modification of any stationary source, facility, major facility, or major modification without first obtaining a permit to construct from the Department...”

When scheduling timelines for project development, cities and counties should keep in mind that a PTC may be required for certain projects.

#### 2.1.1 Action Items

- Before project approval, request project information specifying which requirements apply under [IDAPA 58.01.01.201](#) and whether the project requires a PTC.
- As a condition of project approval and to ensure compliance with the rules, DEQ recommends cities and counties require applicants to contact DEQ for an applicability determination on any proposal.
- Plan ahead by understanding the type and amount of pollutants that will be emitted into the air from a project. Local governments should understand the pollutants and processes that are not regulated or exempted under IDAPA 58.01.01.
- Local governments have the authority to implement ordinances that help prevent air pollutants beyond state and federal laws and regulations. Determine what is best for the health and welfare of your community.

#### 2.1.2 Resources

For more information, visit DEQ’s [Air Quality Permitting](#) web page.

### 2.2 Air Toxics

[Air toxics](#) are a group of air pollutants known or suspected to cause serious health problems such as cancer, birth defects, lung damage, and nerve damage. Air toxics include asbestos, benzene, chloroform, formaldehyde, lead, mercury, nickel compounds, and perchloroethylene.

To make long-term strategic decisions about projects, local governments should understand the following and how they may impact a community:

- Types of air toxics associated with a project
- How the air toxics are regulated by local, state, and federal agencies
- Any air toxic exemptions a project may have from state and federal regulations

### **2.2.1 Action Items**

After project assessment, evaluate the potential impact to your community and develop management plans.

- Reduce emissions of air pollutants, including air toxics:
  - Encourage employees and citizens to drive less. Many air toxics, like benzene, come from motor vehicle exhaust. Encourage carpooling, use public transportation, combine trips, avoid drive-throughs, drive the speed limit, and keep your vehicle well tuned and in proper working condition.
  - Provide alternatives to open burning of trash, leaves, or other yard wastes by implementing a community compost or wood recycling program. Provide alternatives to burning plastics by offering a community recycling program.
  - Avoid using products containing toxic compounds and encourage community members to do the same.
- Local governments have the authority to implement ordinances that help prevent the release of air toxics beyond state and federal laws and regulations. Determine what is best for the health and welfare of your community.

### **2.2.2 Resources**

For more information, visit DEQ's [Pollution Prevention](#) web page.

[EPA Asbestos](#)

[Chemical Roundup Program](#)

## **2.3 Burning and Smoke Management**

Cities and counties should be aware of the following burning and smoke management issues:

- [Burn restrictions and bans](#)
- [Crop residue burning](#)
- [Residential burning](#)
- [Trade waste](#)
- [Wildland and prescribed fires](#)
- [Woodstove best burning practices](#)

Restrictions may exist on what can be burned and when, and an [air permit](#) may be required as outlined in the [Rules for the Control of Air Pollution in Idaho](#) (IDAPA 58.01.01.600–623).

*Burning of most processed or manufactured materials* is prohibited (exemptions may apply):

- Garbage from food preparation
- Dead animals or animal waste
- Junk motor vehicles or parts
- Tires or other rubber materials
- Plastics
- Asphalt
- Tar and petroleum materials
- Paints
- Preservative-treated wood
- Trade waste (commercial, industrial, or construction)
- Insulated wire
- Pathogenic (disease-causing) waste

Unless a *burn ban* is in effect:

- Residents who have house-to-house garbage collection may burn tree leaves, gardening waste, and yard trimmings if allowed by local government ordinances during certain periods of the year.
- Residents who do not have house-to-house garbage collection may burn rubbish (such as paper and cardboard), tree leaves, gardening waste, and yard trimmings if burning is conducted on the property where the waste was generated.
- Smoke generated by burning can contribute to poor air quality and impact human health. Smoke contains small airborne particles that can become lodged in our lungs, making breathing difficult and leading to more serious short-term and chronic health problems for certain sensitive populations, such as small children, pregnant women, older adults, and people with asthma or other respiratory ailments.

### **2.3.1 Action Items**

- Before project approval, request project information specifying which requirements apply under the *Rules for the Control of Air Pollution in Idaho* (IDAPA 58.01.01.600–623).
- Assess projects for burning and smoke issues, evaluate the possible impact to your community, and develop management plans for this potential pollution.
- Plan ahead by providing alternatives to burning activities that generate air pollution, including a community *compost or recycling* program.
- Local ordinances may further restrict or prohibit burning to help prevent emissions from burning and smoke beyond state and federal laws and regulations. Determine what is best for the health and welfare of your community.
- Contact a *DEQ regional office* for assistance with open burning and burn ban rules.

### **2.3.2 Resources**

For more information, visit DEQ's *Smoke and Burning* web page.

*Burn Right*

## 2.4 Fugitive Dust

Dust is *particulate matter* consisting of very small particles. *Fugitive dust* is particulate matter suspended in the air. According to the *Rules for the Control of Air Pollution in Idaho* (IDAPA 58.01.01.651), “All reasonable precautions shall be taken to prevent particulate matter from becoming airborne.”

Communities experiencing population growth may experience a rise in fugitive dust emissions as parcels of land are cleared of vegetation for development, construction and excavation activities increase, and dirt and gravel roads are constructed. These activities expose and disturb soil and cause fugitive dust to become airborne, which can contribute to health problems and affect visibility on local roads.

Cities and counties are responsible for dust suppression on city and county property. Suppression can include paving high-traffic dirt roads, sweeping roadways often, or using wind erosion controls such as planting bushes or trees or constructing wood or rock walls in dusty areas.

### 2.4.1 Action Items

- Before project approval, request project information specifying which requirements apply under [IDAPA 58.01.01.651](#).
- Incorporate dust management into your comprehensive plan to keep potential fugitive dust problems under control.
- Understand how a project may emit dust and consider requiring such projects within your jurisdiction to develop a dust prevention and control plan before project approval. Dust prevention and control plans incorporate appropriate best management practices to control fugitive dust that may be generated at a site.
- Local governments have the authority to implement ordinances that help prevent fugitive dust emissions beyond state and federal laws and regulations (such as requiring a cover over open-bodied haul trucks transporting dusty material). Determine what is best for the health and welfare of your community.

### 2.4.2 Resources

For more information, visit DEQ’s [Compliance Assistance](#) web page.

## 2.5 Greenhouse Gases

Gases that trap heat in the atmosphere are called greenhouse gases. Some greenhouse gases such as carbon dioxide occur naturally and are emitted to the atmosphere both through natural processes and human activities. Other greenhouse gases (such as fluorinated gases) are created and emitted solely through human activities. The following principal greenhouse gases enter the atmosphere because of human activities:

- Carbon dioxide
- Methane

- Nitrous oxide
- Fluorinated gases

Local governments should care about climate change:

- **Cost savings.** Reducing greenhouse gas emissions has many benefits: lowering energy costs, increasing process efficiency, conserving resources, and reducing waste.
- **Energy security.** A finite amount of resources such as oil are available and future prices of such resources remain unpredictable, so using alternative energy sources and reducing energy consumption can limit the vulnerability of local government operations and reduce the volatility of overhead costs.
- **Job creation.** Reducing greenhouse gas emissions can positively impact job growth. Local government initiatives such as supporting an alternative transportation program, green building, and renewable energy can directly and indirectly promote the growth of these industries.
- **Leadership.** Local governments can directly effect change through policy or program decisions and promote change from businesses and organizations within the community.
- **Human health and the environment.** Climate change affects people, plants, and animals (e.g., sea level rise, shrinking glaciers, changes in the range and distribution of plants and animals, earlier-blooming trees, longer growing seasons, late freezes and early thaws of ice on rivers and lakes, and thawing of permafrost). Human health can be affected directly and indirectly by climate change through extreme periods of heat and cold, storms, increase in climate-sensitive diseases, and smog episodes. Local governments may be faced with the following challenges:
  - Developing land in flood-risk areas
  - Ensuring building standards are adequate to withstand changes in weather events
  - Weighing the adequacy of emergency procedures
  - Addressing public health and welfare effects from uncharacteristic events triggered by climate change
- **Improving air quality.** Actions that reduce greenhouse gas emissions can improve air quality, such as using alternative transportation, driving less, and using renewable energy.

### 2.5.1 Action Items

- *Understand* the quantity of greenhouse gases emitted from each project, *evaluate* the impact to your community, and *develop* management plans for this potential pollution. Consider requiring each project develop a [greenhouse gas inventory](#) and associated action plan.
- Develop a city or county inventory of greenhouse gas emissions to quantify emissions from municipal buildings, fleets and equipment, solid waste, and landfills.
- Develop an action plan establishing programs and goals to reduce greenhouse gas emissions. Suggestions are provided below:

**Reduce Consumption—Free or Low Cost****Lighting**

- Turn off lights when not in use or install occupancy sensors in hallways, bathrooms, meeting rooms, kitchens, storage rooms, and other areas where lights can be shut off for blocks of time.
- Install photocells in outdoor entryways and security lighting to automatically sense outdoor lighting levels.
- Install light-emitting diode (LED) exit signs in place of incandescent signs. LED signs last up to 15 times longer and use less energy.
- Reduce overhead lighting near day lit areas, over lit areas, or areas not requiring light
- Install fluorescent or LED light bulbs
- If a janitorial service comes in after hours, request they only use lights in areas they are cleaning. Have them turn all lights off when they are finished for the night.

**Water**

- Install low flow fixtures on showers, sinks, and toilets.
- Insulate hot water heaters.
- Lower the temperature on water heaters.
- Implement a water conservation program and post water conservation stickers, signs, and posters in bathrooms, kitchens, cafeterias, conference rooms, and other places where employees congregate.
- Minimize lawns. Lawns use more water than any other landscape plants.
- Use drip and other low-flow irrigation devices.

**Fleets**

- Implement a no-idling policy for vehicle fleets and customers.
- Implement a vehicle maintenance policy for vehicle fleets to maximize vehicle efficiency.

**Heating and Cooling**

- Adjust air conditioning in the summer and heat in the winter.
- Install automatic, programmable, set-back thermostats to control heating and cooling.
- Set thermostats and lights to correspond with shifts.
- Open blinds in the winter and close them in the summer.
- Restrict the use of space heaters, consider heating pads or blankets instead.
- Clean all filters in your heating and cooling system monthly.
- Limit open doors when picking up or delivering material.
- Schedule heating, ventilation, and air conditioning system tune-ups once or twice a year. Clean coils, check and correct refrigerant charge, clean and lubricate the fan motor, check for proper airflow, adjust the pulley settings and fan belts, replace air handling unit filters, and do routine checks to ensure proper performance.
- When the building is unoccupied, ensure outside air dampers are closed, including morning warm-up periods.

- Seal ducts that run through unconditioned spaces. Leaking ductwork can lose 20% or more of the conditioned air in a supply duct run.
- When scheduling group activities and meetings after hours, use rooms and areas that can be heated and cooled individually, so the whole floor is not heated or cooled.

### **Purchasing**

- When buying new equipment, appliances, or fixtures look for ENERGY STAR or WaterSense certified.
- Purchase products with recycled content or that are recyclable.
- Purchase only what is needed, bulk is not necessarily better if it has an expiration date.
- Purchase Forest Stewardship Council certified paper and wood products.
- Purchase local and/or organic food.

### **Transportation**

- Start an alternative transportation program for employees and consider making a vehicle available to employees with emergencies who used an alternative mode of transportation to get to work.
- Consider allowing employees to telecommute or work an alternative schedule to limit driving to work.
- Educate drivers to be more efficient on the road and drive fewer miles. Speeding and rapid acceleration and deceleration can increase fuel consumption.
- Schedule travel so that multiple tasks can be accomplished with one trip.
- Remove excess weight from your trunk, and if you have a removable roof rack and are not using it, take it off.
- Replace your air filter regularly. A clogged air filter can significantly reduce fuel economy.
- Keep your tires properly inflated. Maintaining correct tire pressure and a tuned engine can save over a ton of greenhouse gases per year.
- Change the oil according to the manufacturer's recommendations.

### **Waste**

- Start a [recycling](#) program.
- Start an on-site [compost](#) pile.

### **Equipment and Electronics**

- Install motion sensors on vending machines and remove or minimize light bulb use.
- Power down machines when not in use.
- Turn off air compressors when not in use.
- Turn computers and other equipment off at night.
- Use surge protectors for plug in devices and turn them off at the end of the day. Even when electronics or machines are not on they still consume energy. Surge protectors can eliminate the power consumed when turned off.
- Limit printing and print double sided.

- Engage energy saving features on equipment and electronics.
- Check and regularly clean filters if you use exhaust fans.
- Practice routine maintenance.
- Regularly clean and maintain food refrigeration equipment where applicable.
- Stage turn-on of continuous motor loads with one-half hour intervals between loads. This prevents spikes in demand use and associated charges due to higher-than normal start-up power.

### **Employee Involvement**

- Start a green team.
- Seek employee suggestions on ideas for reducing greenhouse gas emissions.

## **Reduce Consumption—Capital Required**

### **Building Envelope**

- Conduct an energy audit—Energy Assessment Technical Assistance:
  - [US Department of Energy Industrial Assessment Center](#)
  - [Idaho Office of Energy and Mineral Resources Energy Efficiency](#)
  - [Avista Utility Tools](#)
  - [Idaho Power Energy Savings for Your Business](#)
- Re-insulate the roof, walls, and foundation.
- Seal cracks and leaks to prevent air flow loss with caulk, spray foam, or weather stripping.
- Install double pane windows.
- Create a separation between delivery areas and work areas to reduce heat or cool air loss.
- Install sky lights or enhance day lighting.
- Install highly reflective roofs to reduce air-conditioning loads and save money. Highly reflective roofs and surfaces can reduce air-conditioning bills by 10% to 50%.

### **Building Design**

- If conducting renovation, designing a new building, or looking for a new space to lease consider [LEED criteria](#).
- [Highly reflective roofs](#) help make cities cooler, reduce the formation of smog, reduce air-conditioning loads, and save money. Highly reflective roofs and surfaces can reduce air-conditioning bills by 10% to 50%.

### **Water**

- Install a tankless hot water system.
- Plant a xeriscape garden or a garden that requires no or limited irrigation.
- Reuse wastewater or reclaimed water for other industrial uses, landscape irrigation, agricultural irrigation, aesthetic uses such as fountains, and fire protection, and other nonpotable uses.

- Recycle water for the same application for which it was originally used.
- Collect rainwater or irrigation runoff for reuse (water harvesting).
- Use the same water to perform several cooling procedures.

### **Transportation**

- Invest in video conference technology to reduce traveling.
- Purchase fuel efficient vehicles for company fleets.
- Plan routes to maximize efficiency and prevent duplication for delivery or pick up services.

### **Heating and Cooling**

- During occupied hours, ensure the amount of outside air matches load. Adding carbon dioxide monitors, coupled with outside air controls, will only allow as much outside air as is necessary to enter the building in the heating season.

### **Switch to Renewable Energy**

Switch the type of energy used—consider renewable energy or electricity supplied from energy sources, such as wind, solar, geothermal, hydro, and biomass:

- Purchase green power from your utility.
- Increase on-site renewable energy generation by installing solar panels or wind turbines.
- Consider using biofuels, which is biomass converted directly into liquid fuel, to help meet transportation fuel needs. Ethanol and biodiesel are the two most common types of biofuels. Invest in alternative fuel and flex-fuel vehicles for your business transportation needs.
- Purchase electric or hybrid vehicles.

### **Renewable Energy Resources**

- [\*ENERGY STAR's Guide for Small Businesses and Using Renewable Energy\*](#)—Business-oriented links about renewable energy and green power.
- [\*US Department of Energy - Clean Energy\*](#)—Solar, wind, water, geothermal, bioenergy.
- [\*US Department of Energy Consumer's Guide: Renewable Energy\*](#)—Information and resources suitable for small businesses and consumers.
- [\*Green Power Network\*](#)—Green power markets and related activities. Summarizes green power products available in states and nationally available renewable energy certificate products.
- [\*US Department of Energy Alternative Fuels Data Center\*](#)—Resources on using alternative fuels and other petroleum reduction options such as advanced vehicles, fuel blends, idle reduction, and fuel economy.

## Offset

An offset is a reduction of greenhouse gases from the atmosphere due to a project intended to compensate for emissions occurring elsewhere. Carbon offset project types include (1) renewable energy, (2) energy efficiency, (3) land use/land change, such as reforestation and avoided deforestation, and (4) landfill gas destruction and agricultural methane destruction.

Five types of offset sellers are (1) project developers (2) retailers/wholesalers, (3) brokers, (4) aggregators, and (5) utility companies. Each type offers different value-added services, from providing messaging plans and outreach services, to facilitating faster, larger scale transactions.

Purchasing carbon offsets can

- Help reduce greenhouse gas emissions to zero in addition to reducing use and switching energy sources.
- Immediately and cost effectively reduce greenhouse gas emissions.

### ***Criteria for Quality Offsets***

- The offset is additional, meaning the project associated with the offset would not have been completed otherwise or under a business as usual scenario.
- The project associated with the offset is completed in a reasonable time frame and has not yet been completed.
- Projects should produce permanent reductions.
- A local project is preferable to a long distance project.
- Offset projects are monitored and verified.
- Offsets are not resold and are retired after purchased.
- Projects have benefits to the environment as well as health and the community.
- Specific projects with a beginning and ending are better than long-term programs.
- Offsets should be registered with a public registry to prevent double counting.

### ***Offset Resources***

- [\*Carbon Concierge\*](#) engages businesses at prominent environmental and sustainability related conferences, around the country, to engage in climate reduction strategies. Additionally, the Carbon Concierge assesses offset providers in the voluntary carbon market.
- [\*Offset Consumer\*](#) ranks carbon offset providers.

## Promote Alternative Transportation

- [\*Effective public transportation systems\*](#) can significantly reduce greenhouse gas emissions and air pollution while at the same time reducing congestion.
- Local governments can buy fuel-efficient or alternative-fuel vehicles for their fleets, including buses and passenger vehicles.

- By creating [pedestrian- and biker-friendly travel routes](#), cities and towns can often decrease the number of vehicles on the road, leading to less congestion, air pollution, and greenhouse gas emissions.

### **Promote Waste Reduction and Recycling**

- Reduce waste and recycle (section 4.2). Charging residents for collecting household trash based on the amount they throw away creates a direct economic incentive to recycle more and waste less. Reducing the amount of trash sent to landfills can lower greenhouse gas emissions.
- Recycling reduces the amount of energy needed to produce products.

### **Other Local Best Practices**

Best practices for local government climate and energy programs include strategies that deliver clean, reliable, and low-cost ways to meet energy demand while reducing peak electricity system loads and the environmental impacts of energy use. Find more information at EPA's [Energy Resources for State, Local, and Tribal Governments](#) web page.

### **2.5.2 Resources**

- [Cities for Climate Protection](#)
- [Mayors Climate Protection Center](#)
- [Energy Policy Act](#)
- [ENERGY STAR for Local Government](#)
- [EPA Green Vehicle Guide](#)
- Section 6 provides additional resources.

## **2.6 Nonattainment and Air Quality Alerts**

The US Environmental Protection Agency (EPA) set limits on the amounts of certain pollutants that can safely be in our air, called the [National Ambient Air Quality Standards](#) (NAAQS).

EPA considers any geographic area that meets or has pollutant levels below the NAAQS to be an attainment area. An area with persistent air quality problems is designated a [nonattainment area](#), meaning the area has violated federal health-based standards for outdoor air pollution. Each nonattainment area is declared for a specific pollutant. Nonattainment areas for different pollutants may overlap or share common boundaries.

DEQ publishes an [Air Quality Index](#) at least once per day. DEQ also publishes this information for certain areas with lower populations.

Failure to act on nonattainment status can result in a potential loss of federal highway funding. If an area exceeds the NAAQS for [ground level ozone](#), fine [particulate matter](#), or any pollutant, local governments may be directly affected or have specific responsibilities such as implementing an emissions testing program.

When a project has the potential to contribute to poor air quality either directly (from facility emissions) or indirectly (from traffic), your community should understand those impacts for strategic planning.

### 2.6.1 Action Items

- Understand criteria pollutants affecting your area and assess projects for air pollutant issues before approval. EPA sets standards for six air pollutants called *criteria pollutants*. Currently, ozone and particulate matter could trigger nonattainment status in certain areas of Idaho.
- Plan ahead to reduce emissions:
  - Consider bike/walking paths, commuter lanes, public transportation, traffic light synchronization, limitations on sprawl, and public bike racks when planning.
  - Join the *Clean Air Zone* program and develop an anti-idling policy for community buildings and grounds.
  - Use electric or manual lawn care equipment when caring for public grounds.
  - Reduce grass areas by landscaping with native and water-tolerant plants.
  - Check to see if it is a good air quality day before mowing, mow less often, and encourage community members to do the same.
  - Use products that are free of or low in *volatile organic compounds*.
- If you contract with a company for ground or building maintenance, include requirements in the contract about mowing less often and using less-polluting equipment and green products.
- Develop a policy that encourages employees to use alternative transportation, provide incentives if possible, allow employees to work alternative shifts, provide bike racks and locker rooms, and encourage employees not to idle in the parking lot.
- Keep vehicle fleets well-maintained and consider fuel economy when purchasing new fleet vehicles.
- Remind employees to avoid “topping off” the tank when fueling.
- Encourage employees to meet by conference calls, carpool, and drive efficiently.
- Local governments have the authority to implement ordinances to prevent the release of pollutants such as ozone and particulate matter beyond state and federal laws and regulations. Determine what is best for the health and welfare of your community.

### 2.6.2 Resources

For more information, visit [AirNow](#).

## 2.7 Odor Control

A wide range of operations, including livestock feedlots, wastewater treatment plants, and various other industries may generate odors. Cities and counties are responsible for addressing odor problems caused by pets or the presence of other livestock in residential areas.

### **State and Local Regulatory Responsibilities**

- If the odor is created by an agricultural operation, the Idaho State Department of Agriculture is the best contact to address the problem.
- If the odor is created by a solid waste facility, the public health district where the source is located must resolve the situation.
- If the odor is created by pets or the presence of other livestock in residential areas, the complaint is referred to the appropriate city or county authority for regulation under local zoning regulations.

#### **2.7.1 Action Items**

- Incorporate odor management into your comprehensive plan and zoning issues. Industrial and agricultural areas should be properly zoned so the public is not affected by odorous industries.
- Understand how a project may create odor and consider requiring such projects within your jurisdiction to develop an odor management plan before project approval. Odor management plans can include using appropriate best management practices that detail how the applicant will manage odors occurring from the proposed operation.
- Local governments have the authority to implement ordinances to prevent odors beyond state and federal laws and regulations. Determine what is best for the health and welfare of your community.

#### **2.7.2 Resources**

For more information on odor, contact a [DEQ regional office](#).

## 3 Water Quality

This section covers the following topics:

- Drinking water
- Fire protection
- Groundwater quality protection
- Source water assessment and protection
- Surface water
- Wastewater

### 3.1 Drinking Water

DEQ's Drinking Water Program protects public health by requiring drinking water from public water systems to meet all health-based water quality standards and other requirements of the Safe Drinking Water Act (SDWA). Almost 2,000 regulated public drinking water systems operate in Idaho. [Public drinking water systems](#) (publicly or privately owned) serve at least 25 people 60 days out of the year or have at least 15 service connections. Other Idaho citizens get their drinking water from private wells. These private wells are not regulated under the SDWA; well owners are personally responsible for ensuring their water is safe.

If a city, district, or other entity owns and operates a public drinking water system, it is responsible for producing safe drinking water to protect the health of its citizens and fulfilling the requirements of the SDWA and other state and federal rules and requirements.

Drinking water supplies are often vulnerable to contamination from land use practices (e.g., farming and urban development) and potential contaminant sources (e.g., gas stations) within the vicinity of drinking water wells and intakes, particularly surface water sources.

#### 3.1.1 Action Items

Four categories are covered: (1) all projects, (2) projects that use an existing public drinking water system, (3) projects that propose a new public drinking water system, and (4) projects that use individual wells.

##### All Projects

- Before project approval, the applicant proposing to construct a new public drinking water system or to expand an existing system must demonstrate an adequate water source for both quantity and quality.
- Before project approval, verify the project documents specify which requirements apply. EPA delegated to DEQ primary enforcement authority for SWDA, and under this authority, DEQ promulgated the [Idaho Rules for Public Drinking Water Systems](#) (IDAPA 58.01.08).
- Plan ahead by developing and using a comprehensive land use management plan that includes the impacts of present and future water management (e.g., well construction,

current and future water availability for an area, and fire protection water) and addresses present and future needs of an area for adequate, safe, and sustainable drinking water. Schedule a meeting with DEQ for further discussion and recommendations for plan development and implementation.

- DEQ recommends all projects first connect to an existing approved public drinking water system whenever possible. If this is not possible, DEQ recommends developing a new public drinking water system rather than using individual wells.
- Local governments have the authority to protect drinking water beyond what is required by state and federal laws and regulations. Determine what is best for the health and welfare of your community.
- A county or city may want to understand the type of drinking water system needed for a project before project approval. Projects generally fall into one of these categories:
  - Use an existing public water system
  - Propose a new public water system
  - Use individual wells
- If you are an owner (city, district, or other entity) of an existing drinking water system, the following information applies when constructing new facilities or constructing improvements to existing facilities:
  - Understand your responsibilities. A city, district, or other entity that owns or operates a public water system (PWS) is responsible for protecting the health of its drinking water customers by monitoring the quality and available quantity of drinking water and fulfilling the requirements in Idaho rules.
  - Different rules apply to different types of PWSs in Idaho. Determine which type of PWS you operate. Under [\*Idaho's Rules for Public Drinking Water Systems\*](#), a PWS has four categories of requirements:
    - Construction and engineering
    - Ongoing monitoring
    - Reporting
    - Operation and maintenance
  - Understand your system by taking these steps:
    - Talk to the operator of the PWS to determine the status of the system as soon as possible.
    - Understand the drinking water operator certification requirements needed by your system's operator.
    - Consider having a city- and county-elected official attend on-site inspections. While not required, it is helpful if they understand the requirements and are aware of deficiencies.
    - If you receive correspondence from state or federal agencies, such as DEQ or EPA, contact the agency directly for questions.

- Meet with regulating agencies, such as your *DEQ regional office*, to determine operating responsibilities, accountable parties, and the issues affecting your PWS.
- Develop a facility plan for all drinking water systems, regardless of plans for growth. This action can identify system deficiencies in advance of new projects so time is available to address problems. Public drinking water systems are responsible for continually ensuring adequate capacity.
  - Identify and implement *pollution prevention measures*.

### **Projects Using an Existing Public Drinking Water System**

- DEQ requires verification that adequate water is available to serve projects. Before project approval, the city and county should contact the water provider for the following these items that are required by DEQ for project review/approval:
  - Capacity statement or declining balance report
  - System’s willingness to serve the project
  - System’s ability to serve the project
- If a project proposes modifications to an existing public drinking water system, per Idaho Code § 39-118 and the associated *Idaho Rules for Public Drinking Water Systems*, all components of public drinking water system construction, including wells, must be designed by an Idaho-registered professional engineer (note, an Idaho-licensed professional geologist may design wells) and must be approved by DEQ before construction. In some circumstances, a qualified licensed professional engineer (QLPE) other than the design engineer may approve a project in place of DEQ. Refer to *Idaho Code § 39-118* and *IDAPA 58.01.08.504* to determine design review authority.
- DEQ does not review plans for individual service lines; these should be reviewed by the *State Plumbing Bureau* and/or the local building department as per the memorandum of understanding with DEQ. Contact *DEQ* to discuss requirements for other service lines that include mechanical components.
- All projects require preconstruction approval by DEQ unless they meet the provisions of Idaho Code § 39-118.2.d. For existing water systems with adequate capacity and pressure, the plans for simple drinking water main extensions may qualify to be reviewed and approved before construction is initiated by a QLPE. Refer to *Idaho Code § 39-118* for applicability. These simple water main extensions are the only drinking water projects that require no plan review coordination with DEQ before approval. At the discretion of any city, county, quasimunicipal corporation, or regulated public utility, these types of projects that fall under *Idaho Code § 39-118(2)(d)* may be referred to DEQ for approval if desired.

### **Projects Proposing A New Public Drinking Water System**

If a project will serve 25 or more people for 60 days per year or more, or if it will have 15 or more service connections, it meets the definition for a public drinking water system and will be regulated under the Safe Drinking Water Act and *IDAPA 58.01.08*.

- Plan ahead by understanding a water system’s plans and your community’s needs for growth. Doing so can help identify potential future deficiencies in a system in advance of adding more users that could, for instance, cause a system to qualify as a PWS and/or suffer pressure, flow, and supply limitations.
- Before project approval, request that project information specify which requirements apply under [Idaho Code § 39-118](#) and [§ 39-103\(12\)](#) and the associated [Idaho Rules for Public Drinking Water Systems](#) (IDAPA 58.01.08). The following considerations apply:
  - DEQ recommends the developer and engineer schedule a predesign meeting with DEQ early in the conceptual design stage.
  - Projects that propose a new PWS are required to have a general facility plan that covers the system’s conceptual design and a specific engineering report approved by DEQ before plans and specifications are submitted to DEQ for review and approval.
  - A project proposing a new PWS is required to demonstrate technical, financial, and managerial capacity. The capacity demonstration must be submitted to and approved by DEQ prior to or concurrent with proceeding or causing to proceed with construction of a new community or nontransient, noncommunity drinking water system. A transient system (one that does not regularly serve the same 25 people, e.g., a restaurant) does not need to demonstrate technical, financial, and managerial capacity.
  - If a PWS project involves a new well or surface water source, the facility plan/preliminary engineering report must include documentation that the appropriate water right approval has been granted by the Idaho Department of Water Resources.
  - If the PWS will be used to provide water for fire suppression, contact local authorities for fire flow requirements. Any fire flow requirements are in addition to domestic requirements (section 3.2.)

### **Projects Using Individual Wells**

Determine if the project will use a new or existing well.

- If the project is using an existing individual well, prior to approval of a project, verify the change in population size and type (such as employees, children in daycare, or students) does not change the status of the drinking water system. Contact the local [public health district](#) with the population type information for verification.
- If a project proposes the use of individual wells for each residential domestic water supply, the local [public health district](#) has oversight of the systems.
- Individual wells are private wells. Private well owners that serve less than 15 connections or do not serve 25 or more people more than 60 days out of the year are not regulated by the state for water quality. Owners of individual wells are responsible for monitoring the quality of their own drinking water. In addition, individual well construction in most cases is not equivalent to public drinking water system well construction. DEQ recommends that private wells be tested for total coliform bacteria, nitrate, and nitrite before use and be retested annually. [Nitrate and arsenic](#) are

particularly important because they are the most widespread groundwater contaminants in Idaho.

- If a project uses individual wells, evaluate the potential to meet fire flow requirements.

### 3.1.2 Resources

For more information, visit DEQ's [Drinking Water](#) web page.

[Engineering and Development](#)

[Preventing Contamination of Drinking Water Resources](#)

[Public Water System Switchboard](#)

## 3.2 Fire Protection

Public water systems are the primary source of water for firefighting so local governments should consider the benefits of fire protection for public safety and understand water resources and pressure requirements.

### 3.2.1 Action Items

- Before project approval, request project information specify which requirements apply. Understand fire code as it applies to each project and how it is enforced in your city or county ([Idaho Code § 41-253](#)).
- Plan ahead. Fire department resources are spread thin as more homes are built outside of fire districts. To avoid exceeding available fire protection resources, cities and counties should review and understand the fire protection needs of their community.
- Understand the fire department that services each project and its capacity to serve:
  - Does a project have fire protection?
  - Where is the nearest fire station located?
  - What is the average response time for the station?
  - Who funds the fire department and are there volunteer or full-time employees?
  - What water resources are available to firefighters?
- For all projects, DEQ recommends the county or city:
  - Contact and coordinate with the local [Fire Departments](#) and [State Fire Marshal](#) for fire code requirements on all projects.
  - Contact local county code enforcement and local utilities to ensure that all requirements are met.
  - Contact the [Idaho Department of Water Resources](#) to understand water rights for each project and the circumstances in which available water can be used for fire protection and prevention.

### 3.2.2 Resources

[Need a permit?](#)

### 3.3 Groundwater Quality Protection

Groundwater is found underground in the cracks and prespaces in sediments and rock. The layers that contain moving groundwater are called aquifers. Aquifers consist of gravel, sand, sandstone, or fractured hard rock, like basalt.

Groundwater replenishes our streams and rivers and provides fresh water for irrigation, industry, and communities. It also supplies 90% of the state's drinking water. Around 9 billion gallons of groundwater are withdrawn every day for various uses in the state.

Agriculture uses approximately 60% of the total groundwater withdrawn in the state for dairy production, feed lots, and for irrigation of such crops as potatoes, sugar beets, and barley.

Aquaculture also relies on groundwater, as do industrial processes that use groundwater for food processing, fertilizer production, and high-tech manufacturing.

The [Idaho Environmental Protection and Health Act](#) (Idaho Code § 39-126) mandates that state and local governments incorporate policies from the [Idaho Ground Water Quality Plan](#) into their programs. Idaho Code § 39-126 authorizes and encourages cities, counties, and other political subdivisions to implement groundwater quality protection policies within their jurisdictions.

Idaho's [Local Land Use Planning Act](#) (Idaho Code § 67-6537) requires local governing boards to consider the impact on groundwater quality when amending, repealing, or adopting a comprehensive plan.

#### 3.3.1 Action Items

- Plan ahead. Local governments have the authority to manage potential sources of groundwater contamination within their jurisdictions. *They can protect groundwater quality by including groundwater protection as a component in their comprehensive plans.* Local governments can also implement ordinances and regulations such as wellhead protection overlay zones, riparian buffers, storm water management ordinances, special use permits, and land-use controls to protect groundwater quality.
- Local governments have the authority to implement ordinances that restrict groundwater contamination beyond state and federal laws and regulations. Many land uses that pose a potential threat to groundwater quality are managed at the local level. Local government can most efficiently administer and implement some provisions of the [Idaho Code § 39-126](#) and the [Idaho Ground Water Quality Plan](#), particularly when implementation can be incorporated into existing programs. Determine what is best for the health and welfare of your community.
- Implement groundwater quality protection policies within your jurisdiction. The [Idaho Ground Water Quality Plan](#) provides guidance on groundwater policies and implementation strategies for local government management efforts.

- Consult the [Idaho Ground Water Quality Plan](#) to evaluate city or county use and management of pesticides, chemicals, and hazardous waste.
- Consider implementing:
  - Land use regulations, zoning, or ordinances, especially for activities located near sensitive drinking water areas, such as protecting water supplies at the source using buffers or land use restrictions (section 3.4)
  - Homeowner and business education programs to provide information on topics such as how to properly apply fertilizer
  - Water conservation standards
  - Collection sites for used oil, pharmaceuticals, or household hazardous waste (section 4.2)
  - Community and business stewardship programs
  - Groundwater protection policies and ordinances
  - Best management practices to mitigate the risk of potential contamination
- Reference federal and state regulations that you may want to apply to unregulated tanks (e.g., heating oil tanks), such as the [Rules Regulating Underground Storage Tank Systems](#) or the [Spill Prevention, Control, and Countermeasure \(SPCC\) Rule](#) (section 5.7). Develop and use best management practices for facilities and persons that store and use materials that have the potential to contaminate soil and groundwater. This includes assistance with selecting, designing, installing, and maintaining secondary containment systems.
- Consider a requirement that projects have pollution liability insurance.
- Identify groups in the community working on water issues, such as utility companies, water quality agencies, or advocacy organizations, and explore ways to collaborate with them.
- Contact DEQ for training and technical assistance in implementing groundwater and drinking water protection.
- Communities can work with DEQ to form local groundwater quality advisory committees to implement strategies and groundwater quality improvement plans.
- Research funding potential to replace septic systems with upgraded sewer systems.
- Request concentrated (or confined) animal feeding operation (CAFO) (section 5.2) siting evaluations.

### 3.3.2 Resources

For more information, visit DEQ's [Groundwater](#) web page.

## 3.4 Source Water Assessment and Protection

*Source water* is untreated water from streams, rivers, lakes, or aquifers (groundwater) that is used to provide public drinking water and to supply private wells used for human consumption.

Source water *assessments* are reports written by DEQ that provide information on the following:

- Potential contaminant threats to public drinking water sources
- Area that contributes to the source
- Likelihood of that source to become contaminated

Communities can use source water assessments to implement drinking water source protection plans, programs, and activities.

Source water *protection* is a voluntary process that enables communities to protect groundwater and surface water supplies that serve as a source for drinking water. Source water protection consists of voluntary or regulatory programs and activities that are typically implemented at the local level by a broad spectrum of community groups, including government, private entities, and individuals. A drinking water source protection plan is often developed by a community or a PWS to identify actions a community can implement to prevent contamination of water that supplies its PWS.

Safe drinking water is fundamental for a healthy and economically vibrant community. Local governments play a primary role in the protection of a community's drinking water supply. The [Idaho Environmental Protection and Health Act](#) (Idaho Code § 39-126) mandates that state and local governments incorporate policies from the [Idaho Ground Water Quality Plan](#) into their programs and states that cities, counties, and other political subdivisions are also authorized and encouraged to implement groundwater quality protection policies within their jurisdictions.

The Idaho [Local Land Use Planning Act](#) (Idaho Code § 67-65) requires local governing boards to consider the impact on groundwater quality when considering amending, repealing, or adopting a comprehensive plan. A comprehensive plan should consider protection of source water because a sustainable supply of clean and reliable drinking water is needed for the economic vitality of a community.

Preventing contaminants from entering the water that supplies a PWS minimizes potential problems, such as increased health risks, expanded drinking water monitoring requirements, additional water treatment requirements, or expensive environmental cleanup activities.

In many cases, public drinking water systems are not operated by local governments and do not have the authority needed to protect drinking water sources. Municipal and county governments have the responsibility and legal authority for enacting and enforcing drinking water source protection measures.

### **3.4.1 Action Items**

- Before project approval, request that source water impacts from the project be determined and that the project specify whether any federal or state requirements apply.
- Plan ahead. Local governments have the authority to manage potential sources of source water contamination within their jurisdictions. *They can therefore protect drinking water sources by including groundwater and source water protection as a component in their comprehensive plans.* Local governments can also implement

ordinances and regulations such as wellhead protection overlay zones, riparian buffers, storm water management ordinances, and land-use controls to protect delineated source water areas.

- Use the [source water assessments](#) available from DEQ:
  - Implement broader drinking water source protection plans, programs, and activities to address current problems and prevent future threats to the quality of drinking water
  - Manage development of high-risk activities to minimize threats to source water through planning, zoning, best management practices, and land use decisions.
- Develop a [drinking water source protection plan](#) to guide protection activities your community will take and to inform and educate the public.
- Consider implementing the following:
  - Land use regulations, zoning, or ordinances, especially for activities located near sensitive drinking water areas, such as protecting water supplies at the source using buffers or land use restrictions
  - Homeowner and business education programs to provide information on topics such as how to properly apply fertilizer
  - Water conservation standards

Collection sites for used oil, pharmaceuticals, or household hazardous waste (section 4.2)

- Community and business stewardship programs
- Groundwater protection policies and ordinances
- Best management practices to mitigate the risk of potential contamination
- Research funding potential to replace septic systems with upgraded sewer systems.
- Request CAFO (section 5.2) siting evaluations.
- Identify groups in the community working on water issues, such as utility companies, water quality agencies, or advocacy organizations, and explore ways to collaborate with them.
- Identify practices that threaten to pollute drinking water sources. Set up a task force of stakeholders, including citizens, to assess issues affecting drinking water source protection areas.
- Local governments have the authority to protect source water beyond federal and state laws and regulations. Determine what is best for the health and welfare of your community.

### 3.4.2 Resources

Funding opportunities are available:

- [Brownfields in Idaho](#)
- [Source Water Protection Grants](#)
- [Nonpoint Source Management § 319 Subgrants](#)
- [EPA Grants](#)

For more information, visit DEQ's [Source Water](#) web page.

[EPA Source Water Protection Local Government Resources](#)  
[NACo County Code and Ordinances](#)

## 3.5 Surface Water

Surface water is all water that is naturally open to the atmosphere, such as lakes, rivers, streams, and reservoirs.

Under Idaho's [Water Quality Standards](#) (IDAPA 58.01.02), cities and counties cannot discharge materials to surface water or degrade surface water quality without first obtaining a permit, when required.

Surface water pollution can result from a number of sources, including dredging, storm water runoff, and industrial or municipal wastewater discharges.

Cities and counties are the government agencies that manage land use. They are responsible for determining how land is developed and zoned and for protecting the features of surface water through city and county ordinances.

Under the Clean Water Act, DEQ establishes and EPA approves total maximum daily loads (TMDLs) for pollutants in impaired water bodies (i.e., a TMDL is a pollutant budget). A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive from human-caused sources and still meet water quality standards. These loads become incorporated into discharge permits.

### 3.5.1 Action Items

- Before project approval, request project information that specifies which requirements apply under [IDAPA 58.01.02](#).
- Understand the proximity of all surface waters to a project and how the project could cause surface water pollution (due to dust or storm water runoff). Take surface water protection into consideration for all projects.
- Ensure projects have acquired appropriate surface water permits before approval. Under the federal Clean Water Act, any in-water construction discharges of pollutants into surface waters must have an Army Corps § 404 permit or an [Idaho National Pollutant Discharge Elimination System \(IDPES\) permit](#).
- Plan ahead to prevent storm water pollution.
  - Develop storm water ordinances.
  - When approving development plans, consider sustainability in water quality issues.
  - Implement land use regulations or ordinances, especially for activities located near surface water.
  - Incorporate pollution prevention strategies into the land use and planning process, such as protecting surface waters by using buffers or other protection measures.
- Support a used-oil or household hazardous waste (section 4.2) collection program.
- Join the [Storm Drain Marking Program](#).

- Local governments have the authority to implement ordinances that prevent storm water pollution beyond federal and state laws and regulations. Determine what is best for the health and welfare of your community.
- TMDLs—Participate in [watershed advisory groups](#) and the development of water quality improvement plans.
  - Determine if a water body near a project has a [TMDL](#); if so, additional considerations may be advisable for such projects. Contact [DEQ](#) for more information.

### 3.5.2 Resources

#### [Need a permit?](#)

For more information, visit DEQ's [Storm Water](#) web page.

[NPDES Stormwater Program](#)

[EPA Facility Stormwater Management](#)

[Low Impact Development Center](#)

[Evaluating the Effectiveness of Municipal Stormwater Programs](#)

[Funding Stormwater Programs](#)

[Impaired Waters and Stormwater](#)

## 3.6 Wastewater

Wastewater is spent or used water, such as from households and businesses, that contains enough harmful material to damage the water's quality. Every building with running water generates wastewater.

If a city, district, or other entity owns and operates a wastewater collection or treatment system, it is responsible for protecting the health of its citizens and fulfilling the requirements set by state and federal rules and permits for collecting, treating, and disposing of the wastewater.

Individuals with wastewater systems discharging to drainfields on their lots are responsible for all wastes entering their systems because these wastes may enter the groundwater below the drainfields. The groundwater is Idaho's main source for individual and community drinking water; see Section 3.4 "Source Water Assessment and Protection" for guidance.

Wastewater contains contaminants such as oil, dirt, human waste, and chemicals. Untreated wastewater can cause serious harm to the environment and threaten human health. Proper management and disposal of wastewater is essential to protect public health and Idaho's water quality.

### 3.6.1 Action Items

Four types of projects are covered below: (1) all projects, (2) projects that expand existing wastewater systems, (3) projects that propose new public wastewater systems, and (4) subsurface treatment and disposal systems.

#### All Projects

Projects will need to comply with one or more of the following rule chapters: [Wastewater Rules](#) (IDAPA 58.01.16), [Recycled Water Rules](#) (IDAPA 58.01.17), [Rules Governing the Idaho Pollutant Discharge Elimination System Program](#) (IDAPA 58.01.25), or [Individual/Subsurface Sewage Disposal Rules](#) (IDAPA 58.01.03).

Plan ahead by developing and using a comprehensive land use management plan, which includes the impacts of present and future wastewater management. DEQ recommends all new projects be served by existing approved wastewater collection systems or centralized community wastewater systems whenever possible.

Local governments have the authority to implement ordinances that go beyond federal and state laws and regulations for wastewater management. Determine what is best for the health and welfare of your community.

Understand the project's type of wastewater and its collection and treatment system before project approval. Projects generally fall under one of the categories:

- Expand existing wastewater systems.
- Propose new wastewater systems.
- Subsurface treatment and disposal system (SSDS)
  - Community subsurface treatment and disposal systems
  - Individual on-site wastewater systems

If you are an owner (a city, district, or other entity) of an existing wastewater system, the following applies:

- Understand your responsibilities. If a city, district, or other entity owns and operates a wastewater collection or treatment system, it is responsible for protecting the health of its citizens and fulfilling the requirements set by state and federal rules and permits.
- Different rules apply to different types of wastewater collection, treatment, and disposal systems in Idaho. Determine which type of system you operate. Wastewater collection, treatment, and disposal systems have four categories of requirements under [IDAPA 58.01.16](#), [IDAPA 58.01.17](#), and the [Rules Regulating the Idaho Pollutant Discharge Elimination System Program](#) (IDAPA 58.01.25):
  1. Engineering design and construction
  2. Ongoing monitoring
  3. Reporting
  4. Operation and maintenance
- Understand your system by taking these steps:

- Talk to the operator of the wastewater system to determine the status of the system as soon as you take office.
- Understand the certification requirements needed by your operator.
- Consider having a city and county elected official attend on-site inspections. While not required, it is a good idea for them to participate to understand the requirements and be aware of deficiencies.
- If you receive any correspondence from state or federal agencies such as DEQ or EPA), contact the agency directly with any questions.
- Meet with regulating agencies, such as your *DEQ regional office* or your *public health district* to determine operating responsibilities, responsible parties, and issues affecting your wastewater system.
  - Consider developing a facility plan for all wastewater systems, regardless of plans for growth. Doing so can help identify deficiencies in a system in advance of new projects so ample time is available to address problems or issues. Cities are responsible for continually ensuring adequate capacity.
  - Contact your *DEQ regional office* with any questions regarding expanding or modifying existing systems.
  - If your system has a lagoon, the *Wastewater Rules* require all lagoons to be leak tested on a regular basis.
- Identify and implement *pollution prevention measures*.
- Local governments have the authority to implement ordinances that go beyond state and federal laws and regulations for wastewater management. Determine what is best for the health and welfare of your community. Educate yourself on each wastewater treatment method's benefits and drawbacks. DEQ's state and regional office personnel can help you become informed so that applicable and effective ordinances can be proposed and enacted.

### **Projects Expanding Existing Wastewater Systems**

DEQ recommends verifying that adequate sewer capacity is available to serve projects. Before project approval, the city and county should contact the sewer provider the following items, which are required by DEQ for project review and approval: capacity statement or declining balance report, system's willingness to serve the project, and system's ability to serve the project.

- All facilities should have a DEQ-approved facility plan that outlines current capacity and future expansions needed to expand capacity. If the existing facility plan is inadequate to cover new projects, a new facility plan must be prepared and submitted to DEQ unless the new project is classified as a simple wastewater main extension and capacity can be demonstrated without a new facility plan. Developing a facility plan can help identify deficiencies in a system in advance of new projects so ample time is available to address problems or issues.
- According to Idaho's Wastewater Rules, all systems proposing major wastewater system collection projects, pump station projects, treatment plant designs or upgrades, or new

sewage transfer stations are required to submit a project-specific preliminary engineering report for DEQ review and approval before submitting project specific plans and specifications for the project.

- All projects involving wastewater collection systems, wastewater treatment plants, or wastewater disposal systems must be designed by a professional engineer registered in Idaho. Plans and specifications need to be approved before construction. Refer to Idaho Code § 39-118 and the Wastewater Rules (IDAPA 58.01.16.400.03) to determine design review authority.
- For existing wastewater systems with adequate capacity, the plans for simple wastewater main extensions may qualify to be reviewed and approved by a QLPE before initiating construction. Refer to Idaho Code § 39-118 and the Wastewater Rules (IDAPA 58.01.16.400.03) for applicability and requirements. These simple wastewater main extensions are the only wastewater projects that do not require DEQ plan review and approval. At the discretion of any city, county, quasimunicipal corporation, or regulated public utility, projects that fall under Idaho Code § 39-118 may be referred to DEQ for approval.

Upon project completion project-built drawings must be submitted to DEQ.

- DEQ does not review plans for gravity service lines serving residences; these should be reviewed by the State Plumbing Bureau and/or the local building department. Contact [DEQ](#) to discuss requirements on any other service line that includes mechanical components.

### **Projects Proposing New Public Wastewater Systems**

- All projects involving new wastewater collection, treatment, or disposal systems must be designed by a professional engineer registered in Idaho. Refer to [Idaho Code § 39-118](#) to determine applicability of DEQ design review.
- According to Idaho's [Wastewater Rules](#), DEQ recommends that a city or county consider the following when approving or constructing new public wastewater collection, treatment, or disposal systems:
  - Schedule a predesign meeting with DEQ before preparing facility plans, engineering reports, or plans and specifications for a new public wastewater collection system.
  - Plans and specifications must be approved by DEQ before construction.
  - Before submitting plans and specifications for the wastewater collection, treatment, or disposal system for DEQ review and approval, all new systems must have a current facility plan; a technical, financial, and managerial document; and a project-specific engineering report approved by DEQ.
    - The facility plan is a planning document that covers items such as the project's location, population, demographics, and the overall wastewater system configuration (collection, treatment, and disposal components). The facility plan should be prepared and submitted to DEQ before design of the wastewater infrastructure. A facility plan would also be used to support and supplement planning and zoning requests. Facility plans are sometimes referred to as a Master Plan or Facilities Planning Study.

- The technical, financial, and managerial document demonstrates a system’s ability to construct, own, and operate a wastewater system, and documents the capabilities required of a wastewater system to achieve and maintain compliance with the [Wastewater Rules](#).
- The project-specific preliminary engineering reports are used to establish the detailed design basis for individual wastewater components such as pumping stations and treatment works.
- If a project includes a private municipal wastewater treatment plant, the minimum design capacity for such plants is 25,000 gallons per day based on average day flows.
- Per the Idaho [Wastewater Rules](#), owners of private municipal wastewater treatment plants must receive a draft IPDES permit, draft wastewater reuse permit, or final SSDS permit before DEQ will approve plans and associated specifications for collection and treatment systems. Communities approving projects should consider this requirement when scheduling timelines and understand the wastewater treatment plant’s effluent discharge proposed for a project.
  - **IPDES permit.** If wastewater treatment plant effluent is discharged to a water body identified as a water of the United States, an [IPDES permit](#) will be required for the proposed discharge.
  - **Wastewater reuse permit.** If a project proposes reuse of wastewater (for irrigation or land application, for instance), a [reuse permit](#) is required.
  - **Subsurface treatment and disposal system.** If effluent from the wastewater treatment plant will be discharged to groundwater through a subsurface disposal system, a permit from the local public health district will be required. DEQ review and approval may also be necessary.

### **Subsurface Treatment and Disposal System**

Subsurface Treatment and Disposal Systems (SSDSs) can service the needs of various wastewater generators ranging from individual homes to small communities. Where and how the wastewater is generated establishes the type of SSDS while the wastewater volume determines whether enhanced drainfield configurations are required or not.

The following are common types of subsurface treatment and disposal systems:

1. Individual on-site wastewater systems
2. Central subsurface treatment and disposal systems, referred to as a community SSDS

If wastewater volumes of 2,500 gallons per day or more are received by the SSDS, then the drainfield is classified as a large soil absorption system (LSAS) and must meet enhanced design, construction, monitoring, and reporting requirements.

DEQ established minimum standards in the [Individual/Subsurface Sewage Disposal Systems Rules](#) (IDAPA 58.01.03) for the design, construction, siting, and use of individual and subsurface

sewage disposal systems. These rules are administered by Idaho's [public health districts](#) through a memorandum of understanding with DEQ. These rules also establish requirements for obtaining an installation permit and an installer's registration permit. Contact your public health district during initial project planning efforts to understand site and wastewater system requirements.

### **Individual On-site Wastewater Systems**

Individual septic systems are on-site wastewater systems that discharge wastewater into an underground tank, where solids are separated from the effluent, and the clarified water is dispersed into a subsurface drainfield located on the same property where the wastewater is generated. These on-site systems predominantly service residences in areas without access to municipal wastewater treatment plants and are known as septic systems.

On-site SSDS have the potential to transport pollutants from sewage to groundwater. To prevent this, [nutrient-pathogen evaluations](#) (N-P evaluations) may be required for certain proposed on-site wastewater disposal systems. If an N-P evaluation is not required by the public health district, the local government may decide to assess a project's impacts to groundwater and request an N-P evaluation. Requiring an N-P evaluation may be prudent, especially if the subsurface disposal of sewage is to occur in a public drinking water system's source water recharge area.

On-site SSDS may also service commercial, industrial, and institutional facilities. Care must be taken in designing and constructing a SSDS that receives wastewater from these facilities due to the potential for chemical contamination of the groundwater. SSDS serving these facilities are classified as nondomestic SSDS and must preprocess any wastewater generated to domestic wastewater strength before discharging to the drainfield. Due to the potential for undesirable chemicals to enter these systems, the Idaho Department of Water Resources (IDWR) may have additional requirements as specified in the [Rules and Minimum Standards for the Construction and Use of Injection Wells](#) (IDAPA 37.03.03). The public health district coordinates system review with DEQ. DEQ will coordinate the jurisdictional issues with IDWR for permitting of these nondomestic on-site SSDS.

### **Central (Community) SSDS**

A community SSDS is any wastewater treatment system that receives wastewater from more than two dwelling units or more than two buildings under separate ownership. These types of systems are analogous to more well-known municipal wastewater collection and treatment systems, with which they share many characteristics, but they discharge the processed wastewater to a subsurface drainfield. If a project indicates that a community SSDS will be used, details on this system will need to be provided to your local [public health district](#). The public health district will coordinate the review of all project submittals with DEQ so that the community SSDS meets all applicable rules.

Because community SSDS share multiple characteristics with municipal wastewater treatment systems, they must also meet the regulatory requirements defined in the [Wastewater Rules](#)

(IDAPA 58.01.16). Specifically, the project will need to submit technical, financial and managerial documentation (IDAPA 58.01.16.409), a preliminary engineering report (IDAPA 58.01.16.411), and plans and specifications (IDAPA 58.01.16.420) that meet the minimum requirements specified in subsections for pipelines (IDAPA 58.01.16.430) and, if present, pump stations (IDAPA 58.01.16.440) and private wastewater treatment plants (IDAPA 58.01.16.455).

Community SSDS may also service commercial, industrial, and institutional facilities, and because the wastewater is coming from multiple sources, the likelihood that some of these sources are commercial, industrial and institutional facilities are increased. Additional care must be taken in designing and constructing a community SSDS that receives wastewater from these facilities due to the potential for chemical contamination of groundwater. DEQ recommends that community SSDS receiving these mixed wastewater streams have the wastewater from these nondomestic sources evaluated before allowing them to connect to the collection system. DEQ and IDWR rules may apply. Contact the [DEQ regional office](#) or IDWR for assistance.

## **LSAS**

Any individual or community SSDS that will receive wastewater volumes of 2,500 gallons per day or more must be designed and constructed to meet the additional configuration requirements for LSAS design and construction specified in the [Individual/Subsurface Sewage Disposal Rules](#) (IDAPA 58.01.03.013). The public health district will coordinate system review and approval with DEQ before the public health district's issuance of the necessary installation permits.

- Due to the large wastewater volumes discharged to the groundwater at an LSAS, DEQ will require the developer to generate and submit an N-P evaluation. DEQ will evaluate the N-P study to verify the proposed system will not significantly degrade the beneficial uses of the groundwater. DEQ recommends that an N-P study is successfully performed and approved before any system design activity starts.
- All LSAS must be designed by an Idaho-licensed professional engineer. Construction must be performed by a registered complex system installer or a licensed public works contractor who has experience in subsurface system installation, and the installation must be performed under the direction of the licensed professional engineer.

### **3.6.2 Resources**

#### *[Need a permit?](#)*

For more information, visit DEQ's [Wastewater](#) web page.

#### *[Engineering and Development](#)*

#### *[Pollution Prevention in Wastewater Collection and Treatment](#)*

#### *[Guides to Pollution Prevention - Municipal Pretreatment](#)*

## 4 Waste Management and Remediation

This section covers the following topics:

- Hazardous waste
- Household hazardous waste
- Medical and pharmaceutical waste
- Solid waste
- Waste tires

### 4.1 Hazardous Waste

Hazardous waste has characteristics that make it dangerous or potentially harmful to human health or the environment. Hazardous wastes include liquids, solids, contained gases, or sludges. They can be the by-products of manufacturing processes or discarded commercial products. Examples include cleaning fluid; pesticides; paints; batteries; electronics; chemicals; and mercury-containing light bulbs, switches, thermometers, and other instruments.

#### 4.1.1 Action Items

To ensure that hazardous waste is handled and disposed of properly, all businesses in Idaho, including city- and county-owned facilities and project sites, are required to comply with hazardous waste regulations if they generate hazardous waste.

#### 4.1.2 Resources

For more information, visit DEQ's [Hazardous Waste in Idaho](#) web page.

[Types of Hazardous Waste](#)

[Generator Size Categories](#)

[Obtain an EPA Identification Number](#)

[Universal Waste](#)

[Used Oil](#)

[Hazardous Waste Transportation](#)

[Waste Management Permitting](#)

#### Rules and Regulations

[Idaho Hazardous Waste Management Act](#)

[Idaho Rules and Standards for Hazardous Waste](#)

[EPA: Resource Conservation and Recovery Act](#)

## 4.2 Household Hazardous Waste

Leftover household products that contain corrosive, toxic, ignitable, or reactive ingredients are considered household hazardous waste. Products such as paints, cleaners, oils, batteries, mercury thermometers, *electronics*, and pesticides that contain potentially hazardous ingredients require special care when disposed.

Improper disposal methods of household hazardous wastes, such as placing it in the trash or pouring it down the drain, on the ground, or into storm sewers can pollute the environment and pose a threat to human health.

Currently, through exemptions in federal and state regulations, households may dispose of household hazardous waste in permitted municipal solid waste landfills and permitted publicly owned wastewater treatment facilities. Household hazardous waste is often thrown away rather than recycled, reused, or safely treated. If it is not thrown away, it can be improperly stored and put households at risk for *spills* or accidents. For example, mercury thermometers or other mercury-containing instruments can easily break and become very hazardous if not cleaned up properly. To divert household hazardous waste from these facilities, DEQ encourages best management practices such as reuse, recycling, and waste collection if possible. With an outlet to dispose of household hazardous wastes, households and public agencies can avoid the health and financial costs of a preventable spill.

### 4.2.1 Action Items

With the following efforts, cities and counties can encourage safe disposal of household hazardous waste:

- Provide a household hazardous waste collection program to assist households and *very small quantity generators* in diverting such waste from the landfill or sewer. These programs also discourage illegal dumping.
- Household hazardous waste programs can vary depending on the resources available to the city or county. Some collection options include permanent collection or exchange programs, special collection days, and local business collection sites. If your community does not have a permanent collection site or a special collection day, local businesses may accept certain products for recycling or proper disposal.
- Encourage citizens and businesses to use *environmentally preferable purchasing* practices. As consumers of hazardous products, cities and counties can institute environmentally preferable purchasing policies to look for safer alternatives when purchasing potentially hazardous products. If potentially hazardous products must be purchased, buy only what is needed, to avoid storing excess.

### 4.2.2 Resources

*Need a permit?*

*Residential Waste*

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*Household Hazardous Waste Management: A Manual for One-Day Community Collection Programs*

*EPA Household Hazardous Waste*

## 4.3 Medical and Pharmaceutical Waste

### Medical Waste

Medical waste is different from pharmaceutical waste. Medical waste includes all waste materials generated at health care facilities and waste that may be contaminated by blood, body fluids, or other potentially infectious materials. Pharmaceutical waste refers to discarded drugs, both prescription and over-the-counter.

The *Rules and Minimum Standards for Hospitals in Idaho* prescribe storage, handling, transport, and treatment requirements of medical waste for hospitals. Medical waste generated at clinics or at home is not required to be treated before disposal.

#### 4.3.1 Action Items

- Cities and counties may want to assess medical waste disposal for all projects before approval.
- Cities and counties may want to develop and implement *best management practices* for medical waste. DEQ recommends requiring infectious medical waste from all sources be disinfected, using effective treatments to ensure the safety of operators and visitors at solid waste management sites.
- Owners and operators of solid waste management sites have the ultimate say over what they will and will not accept, including untreated medical waste, as long as it does not conflict with applicable state requirements.

### Pharmaceutical Waste

Unused or expired pharmaceuticals are a growing concern in Idaho. Surplus of unused or expired pharmaceuticals can adversely impact our environment, lead to increased drug abuse, and contribute to accidental poisonings. Check to see if *Safe Pharmaceuticals Disposal* is available in your community.

Pharmaceutical waste generated at city or county facilities, such as clinics or long-term care facilities, may be hazardous waste subject to regulation. For more information see Section 4.1 “Hazardous Waste” or visit DEQ’s *Hazardous Waste in Idaho* web page.

#### 4.3.2 Resources

*Need a permit?*

For more information, visit DEQ’s *Safe Pharmaceuticals Disposal* web page.

## 4.4 Solid Waste

Solid waste is (1) any garbage or refuse; (2) sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility; or (3) other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations and from community activities. It does not include solid or dissolved materials in domestic sewage, irrigation return flows, or industrial discharges.

Counties are required to manage solid waste within their jurisdictions. A county's primary responsibility is to establish ordinances to ensure proper management of solid waste. Part of this involves determining if the county wants to manage its own waste using a landfill, incinerator, or other in-county waste management option, or use a transfer station to haul the waste to another county or state.

Every waste management facility has siting, design, operation, closure, and postclosure requirements. A county must obtain multiple approvals from *DEQ* and the *public health district* before a new solid waste facility can accept waste. Review and approval authority is delegated as follows:

- DEQ review/approval authority
  - Location restrictions and site certification
  - Standards for design
  - Groundwater monitoring
  - Financial assurance for closure/postclosure care and corrective action
- Public health district review/approval authority
  - Standards for operation
  - Standards for closure
  - Standards for postclosure care

### 4.4.1 Action Items

Before project approval, request project information specifying which requirements apply under the *Idaho Solid Waste Facilities Act* (Idaho Code § 39-74) and *Solid Waste Management Rules* (IDAPA 58.01.06) apply. Cities and counties should be aware of waste management facilities associated rules:

- *Very Small Quantity Generator*
- *Treatment, Storage, and Disposal Facilities*
- *Incinerators*
- *Landfills*
- *Transfer Stations*
- *Wood or Mill Yard Debris*
- Understand how waste will be managed before approving projects. No trash or other solid waste should be buried, burned, or otherwise disposed of at any site that is not permitted. Disposal methods are regulated by various state regulations. Note that solid

waste management facilities or landfills can be privately or publicly owned. If a municipal solid waste landfill is privately owned, it is required to apply for review by a site review panel, receive a siting license from DEQ, and pay a site license fee to cover the cost of reviewing the site license application.

- Plan ahead. With the following efforts, local governments can better manage waste:
  - Determine the capacity, life expectancy, and expansion limits of your landfill.
  - To increase the life expectancy of your landfill, reduce waste at the source, reuse waste, *compost*, and *recycle*.
  - Recycling, like garbage collection in Idaho, is an optional service provided at the discretion of local governments or by private recycling companies. The level of recycling service (curbside versus self haul) and the number of commodities collected (e.g., paper, aluminum) differ depending on resources available and a community's geographical location to recycling markets (different commodities may have different markets). Because each community has unique resources, the recycling and diversion solutions for one community may differ from those of another. Determine what works best for your community.
  - Develop a *pay-as-you-throw* program, where citizens pay for each can or bag of trash they set out for disposal rather than pay a flat fee. When households reduce waste at the source by consuming less, reusing waste, or recycling, they dispose of less trash and pay lower trash bills. This can help extend the life of landfills.
  - Implement a green purchasing policy in city and county departments to reduce the toxicity and quantity of items purchased and increase the purchase of products with higher recycling content and durability.
  - Divert green waste from the landfill. Wood and yard waste (e.g., lumber, pruned branches, shrubs or bushes, stumps, whole trees, leaves, and grass clippings) can come from construction, demolition, and maintenance of streets, yards, and parks. Such waste represents a significant part of the total amount of solid waste disposed. Recycling and reuse activities for wood and yard waste include wood chipping used for fuel supplements at electricity cogeneration plants; mulching used for landscaping, compost feedstock, and cattle bedding; and composting used as a soil amendment.
  - Develop a reuse and disposal program for household hazardous wastes (section 4.2) such as latex and oil-based paint, stain and primer, wood care products, cleaning products, automotive products, and fertilizers.
- Owners and operators of solid waste management sites have the ultimate say in what they will and will not accept, as long as it does not conflict with applicable state requirements. Sites may choose to reject untreated medical waste, electronic waste, animal waste, and household hazardous waste. Alternative management options should be considered if certain waste streams are not accepted for disposal at the local landfill. Additionally, local governments have the authority to implement ordinances to better manage solid waste beyond federal and state regulations and laws. Determine what is best for the health and welfare of your community.

## 4.4.2 Resources

### *Need a permit?*

For more information, visit DEQ's [Solid Waste](#) web page.

### *Recycling, Reuse, and Composting*

#### **Green Purchasing Resources**

##### *Alternative Fuels and Vehicles*

##### *Biobased Products*

##### *Buy Recycled*

##### *ENERGY STAR*

##### *Environmentally Preferable Purchasing*

##### *Priority Chemicals*

##### *National Institute of Government Purchasing*

##### *EPP Contracts Database*

##### *U.S. Communities*

##### *Responsible Purchasing Networks*

#### **Green Meeting Resources**

##### *EPA Green Meetings*

##### *Green Meeting Industry Council*

## 4.5 Waste Tires

Under Idaho's [Waste Tire Disposal Act](#) (Idaho Code § 39-65), municipal solid waste landfills are the only sites where waste tires can be disposed after demonstrating specified volume reduction. Disposal refers to tires at end of life; storage of new or usable tires is regulated by the county or city.

Counties/cities are required to issue written approvals for waste tire storage sites and collect financial assurance of \$2.50 per tire authorized to be stored. Conditional use permit requirements or other processes where written approval is issued can be used for waste tire storage sites. If counties do not have the personnel or funding to oversee a waste tire program, they may ask DEQ to assume this responsibility.

Abandoned tire piles pose a serious fire threat that can result in air, surface water, and groundwater impacts. Discarded tires are also a breeding ground for disease-carrying pests and rodents, including mosquitoes that carry the West Nile virus.

#### 4.5.1 Action Items

- Before project approval, request project information specifying which requirements apply under the [Waste Tire Disposal Act](#).
- For all projects that include the transportation of waste tires, check with DEQ before approval. Waste tire transporters can only transport waste tires to an approved waste tire storage site.
- Plan ahead by developing a waste tire recycling program that includes the following:
  - Tire-derived fuel
  - Embankment fill (tire shreds only) according to generally accepted engineering practices
  - Alternate daily cover at landfills (upon approval)
  - Mulch (tire shreds only)

#### 4.5.2 Resources

[Need a permit?](#)

For more information, visit DEQ's [Waste Tires](#) web page.

## 5 Special Environmental Concerns

This section covers the following special environmental concerns:

- Brownfields
- CAFOs
- Construction activities
- Emergency response
- Inactive or abandoned mine sites
- Pesticides
- Petroleum storage or fueling
- Ponds
- Salvage yards and vehicle/equipment storage
- Other projects

### 5.1 Brownfields

Idaho's Brownfields Revitalization Program provides cost free assessments for eligible applicants to address known or perceived contamination issues at proposed development projects or at any abandoned or underutilized properties in your community with the potential to use brownfields funds or assistance.

Brownfields are properties for which the expansion, redevelopment, or reuse may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

Abandoned or underutilized properties result in wasted infrastructure, development of green space on the edge of town, and blight in urban and neighborhood areas. Communities may struggle to find new uses for brownfields, whether as a neighborhood park or as a new commercial or retail use, unless and until the environmental issues are resolved. Cleaning up and reinvesting in these properties increases local tax bases; facilitates job growth; uses existing infrastructure; takes development pressures off of undeveloped, open land; and both improves and protects the environment.

Local governments can use the brownfields program to revitalize properties or buildings in their communities by requesting a brownfields assessment, applying for an assessment or clean-up grant, adding a property to DEQ's brownfield inventory, or proposing a brownfield site to DEQ. Local governments do not have to own the property to ask DEQ to conduct an assessment.

For more information visit DEQ's [Brownfields in Idaho](#) web page.

## 5.2 Concentrated (or Confined) Animal Feeding Operations

Review the following information for projects that involve CAFOs:

- The [Idaho State Department of Agriculture](#) (ISDA) is the primary agency that regulates CAFOs. Before approving a CAFO, contact ISDA.
- A [CAFO siting](#) process conducted before approving a CAFO permit can determine environmental risks. Projects may qualify for a state CAFO siting through ISDA. If a county requests a siting through ISDA, representatives from the IDWR, ISDA, and DEQ may review a site proposed for a CAFO, determine environmental risks, and submit a site-suitability determination.
- For proposed CAFOs, consider a requirement for an odor management plan, as the development of such a plan is not included within the CAFO siting process (section 2.7).
- Contact [EPA](#) for more information on CAFOs.

## 5.3 Construction Activities

Disturbances of soil and rock during construction can create significant potential for erosion and sedimentation of nearby canals, streams, rivers, and lakes. To protect surface water, consider requiring implementation of [best management practices](#) for projects that disturb soil or rock. The [Erosion and Sediment Control Manual](#) may be referenced to assist in developing these practices.

Construction activities that disturb 1 acre or more of land, including clearing, grading, and excavation activities; industrial activities specifically listed by EPA; and municipal separate storm sewer systems, which are a city's or town's storm drains are considered point sources of pollution (i.e., a source of pollution that comes from a discrete pipe or other point) and require coverage by a [National Pollutant Discharge Elimination System \(NPDES\) stormwater permit](#).

- **Construction General Permit.** If a construction project disturbs more than 1 acre of land (or is part of a larger common development that will disturb more than 1 acre), the

operator is required to apply for permit coverage from EPA after developing a site-specific storm water pollution prevention plan.

- **Stormwater Pollution Prevention Plan.** To obtain the [Construction General Permit](#), operators must develop a site-specific [Stormwater Pollution Prevention Plan](#). Operators must document the erosion, sediment, and pollution controls they intend to use, inspect the controls periodically, and maintain best management practices through the life of the project.

For more information, see the EPA's [Role of Local Governments in Implementing the NPDES Stormwater Program for Construction Sites](#).

## 5.4 Emergency Response

Successful emergency response requires planning ahead for situations that may cause immediate and serious harm to people or the environment. Potential emergency response situations could include the following:

- Hazardous material spills
- Air pollution
- Drinking water security

To report an emergency or urgent environmental problem, call 911. Using the [Report an Environmental Concern](#) form, contact DEQ about a nonemergency environmental concern or violation.

### 5.4.1 Hazardous Material Spills

To report a spill or accident involving oil, gas, hazardous materials, anthrax, or explosives, call 911. Emergency response personnel or the 911 operator will contact the State Communications Center at (800) 632-8000 or (208) 846-7610. This call will activate Idaho's Emergency Hazmat Response Network, which consists of federal, state and local hazmat responders. The DEQ emergency response network will take the following roles:

- Coordinate state and federal emergency response, recovery, and mitigation operations during emergencies and disasters.
- Provide technical support to local jurisdictions involved in local emergencies and disasters that do not require human and material resources from the state.
- Ensure state and local preparedness, response, and recovery plans are consistent with the state's emergency management goals and procedures.
- Coordinate all requests from state and local governments for disaster emergency assistance.

Appendix A provides the contact phone numbers and process for reporting a hazardous material release.

## 5.4.2 Air Pollution Emergencies

Under the [Air Pollution Emergency Rule](#) (IDAPA 58.01.01.550–562), DEQ is authorized to take appropriate action when levels of regulated air pollutants cause or are predicted to cause a health emergency. The chart below shows the four stages an emergency; each stage addresses a progressively more serious air quality event.

### Stages of an air pollution emergency.

Stage	Title	Description
1	Air Pollution Forecast/Caution	The National Weather Service issues an Atmospheric Stagnation Advisory, or an equivalent local forecast is issued, triggering an internal watch by DEQ.
2	Alert	Air quality has degraded, requiring industrial sources to begin air pollution control actions.
3	Warning	Air quality has further degraded, requiring control actions to maintain or improve air quality.
4	Emergency	Air quality has degraded to a level that will substantially endanger public health, requiring implementation of the most stringent control actions.

## 5.4.3 Drinking Water Security

Under the federal [Public Health Security and Bioterrorism Preparedness and Response Act](#), the [Safe Drinking Water Act](#) was amended to require community water systems that serve populations greater than 3,300 to implement new security measures. The measures are designed to protect the supply of safe drinking water and maintain an adequate supply of water for firefighting in the event earthquakes and drought and disasters caused by humans, including vandalism and terrorist attacks.

### Vulnerability Assessments

The federal Bioterrorism Act requires community water systems serving populations greater than 3,300 to conduct a vulnerability assessment to evaluate weaknesses to potential threats, identify steps to reduce the risk of serious consequences from attack or acts of vandalism, and prepare an emergency response plan incorporating the results of the vulnerability assessment. Small systems are not required to comply, but DEQ urges all water systems to prepare these security aids for their own protection. A self-assessment guide to assist all water systems is found on the [Association of State Drinking Water Administrators](#) web page.

### Idaho Water Area Response Network

Another resource is the Idaho Water Area Response Network (IDWARN), which all water systems can join. This network is modeled on the “utilities helping utilities” concept, which gives water/wastewater utilities the opportunity to be more resilient during disaster response and recovery. IDWARN provides quick and professional assistance in any situation that overwhelms the capabilities of a water/wastewater utility. No formal declaration of emergency is needed, and assistance can take the form of personnel, equipment, materials, or services. A member utility may request deployment of emergency support to restore critical operations at

the affected water/wastewater utility. Water systems are encouraged to participate in this networking resource. Additional information is found at [IDWARN](#).

### **Private Wells**

Private well owners are responsible for the safety of their water. While not a requirement, DEQ recommends testing private drinking water wells for common contaminants at least once per year. Testing for bacteria and nitrate is common; however depending upon the area, land use activity, and well construction standards used, it may be reasonable to test for other potential contaminants. Direct questions related to private well testing to the [public health districts](#) and [projects using individual wells](#).

## **5.5 Inactive or Abandoned Mine Sites**

It is not unusual for properties impacted by mining activities (e.g., inactive and historic abandoned mines, mineral locations, mineral discoveries) or surrounding properties to have high levels of metals or other potentially hazardous materials remaining in waste rock or tailings piles, soil, sediment, and water. These materials can get into the human body in several ways (e.g., recreating in contaminated soil, putting hands or other objects covered with dust into the mouth, breathing in contaminated dust).

In certain circumstances, property owners may be liable for cleanup costs when there is contamination on their property, even if they are unaware of or did not cause the contamination. It is important for property owners, and prospective property owners, located in or near historic mining areas to conduct due diligence regarding the property.

The following DEQ programs may be available to assist property owners with a site assessment. If contamination is present, property owners will need to provide funding for cleanup:

- [Preliminary Assessment Program for Mined Lands and Industrial Facilities](#)
- [Brownfields in Idaho](#)

Property owners seeking DEQ's guidance during cleanup may be eligible to join DEQ's Voluntary Cleanup Program (VCP). The [VCP web page](#) provides program information, with an application form and guidance.

Review the following information for projects that involve inactive or abandoned mine sites.

- Cities and counties, especially those with a high occurrence of mining activities, are responsible for how development occurs in their jurisdictions and should consider mining and mining waste issues when developing planning and zoning ordinances and/or promoting new development.
- Local governments are responsible for public safety, so risk-based management decisions should be used to minimize the human health and ecological risks associated with new development in inactive or abandoned mine sites.

- If cities or counties are purchasing or developing new property, conduct due diligence on the property to determine potential on-site contamination and the need for risk management.

More information is provided below:

[Mining and DEQ](#)

[Abandoned Mine Site Characterization and Cleanup Handbook](#)

## 5.6 Pesticides

Pesticide-laden water can travel through the soil to groundwater or run off to surface water. To minimize pesticide pollution to water, practice the following:

- Develop and implement best management practices for pesticides.
- Ensure pesticide suppression activities acknowledge and incorporate the state and federal rules and regulations for air, water, waste, and the overall environment.
- Ensure streams and surface waters are avoided when pesticides are applied to the land.
- Review the suggestions in section 5.8.

Contact the [Idaho State Department of Agriculture](#) for more information; they are the state regulatory agency responsible for administering the Federal Insecticide, Fungicide, and Rodenticide Act in Idaho and the [Pesticide Disposal Program](#).

## 5.7 Petroleum Storage or Fueling

DEQ developed the [Real Estate and Petroleum Underground Storage Tanks](#) guide to assist real estate professionals with underground storage tanks (USTs) on residential and commercial properties in Idaho. USTs are buried beneath the ground, and often, there are no visible indications that one is present. While the guide is geared toward real estate professionals, the information provided can be implemented for local governments:

- Understand various options a seller or buyer or government entity has when an UST is on a property.
- Help a client or government entity find an UST technician or contractor.
- Obtain more information on USTs.

DEQ regulates USTs and maintains an online database of these properties. No regulations or rules address heating oil USTs on residential property unless a leak has been confirmed. DEQ does not maintain a database of residential heating oil USTs and does not know the locations of these USTs across the state.

## 5.8 Ponds

Local governments should be aware of two types of ponds: (1) gravel pit ponds, which have a high potential of affecting groundwater quality because water can move rapidly through gravel

and sand and carry pollutants to groundwater, and (2) aesthetic water use ponds, which can include ponds located in golf courses or subdivisions.

- Plan ahead by developing and using a comprehensive land use management plan that includes best management practices for ponds. Ponds can develop water quality problems that include algae, scum, stagnation, mosquitoes, and odor.
- Determine the water source and water rights required for proposed ponds.
- Pesticides and other contaminants can enter surface water through runoff, soil erosion, spray drift, misapplication, or spillage and infiltrate to groundwater through the soil. DEQ encourages ponds to be constructed and maintained to comply with the [Ground Water Quality Rule](#) (IDAPA 58.01.11).
- Use best management practices to help maximize the protection of human health and the environment. Best management practices for ponds may include aeration, buffer strips, pesticide and fertilizer regulation, pond liners, or groundwater monitoring.
- Ponds can provide habitat for many animal species and insects. Contact [Idaho Fish and Game](#) and the [public health district](#) for recommendations.

## 5.9 Salvage Yards or Vehicle/Equipment Storage

Review the following information projects that involve salvage yards or vehicle/equipment storage.

- Review projects for the potential to contaminate soil and groundwater and consider requiring implementation of best management practices.
- Determine if there will be petroleum storage or fueling with a project (section 5.7).
- Before project approval, request project information specifying which requirements apply. Note the limitations of state and federal rules and determine if additional requirements may be needed to protect the health and welfare of your community.
- As in other facilities, it must be determined if any solid waste is hazardous waste. If so, the hazardous waste must be managed appropriately according to the [hazardous waste determination](#). Salvage yards may generate solvents, paint, mercury switches, and other auto fluids. If used oil is generated and recycled or burned for energy recovery, consult Idaho's "Standards for the Management of Used Oil" in the [Rules and Standards for Hazardous Waste](#) (IDAPA 58.01.05.15).

## 5.10 Other Projects

DEQ's [Assistance and Resources](#) web page provides additional information about environmental regulations impacting businesses and links to general and industry-specific assistance, forms, checklists, guidance documents.

## 6 Resources

*Idaho Department of Environmental Quality Pollution Prevention (P2) Program*—Helps Idaho’s businesses prevent pollution and conserve resources. DEQ’s P2 specialist will provide on-site or remote assistance on air, waste, water, conservation, and sustainability issues.

*Recycling*—Safe recycling and management options for waste for community and business facilities that recycle common waste products, analytical laboratories, waste transporters, and waste exchanges.

*Local Government Environmental Assistance Network*—This “first-stop shop” provides environmental management, planning, funding, and regulatory information for elected and appointed local government officials, managers, and staff. Enables local officials to interact with their peers and others online.

*ICLEI –Local Governments for Sustainability*—International association of local governments and national and regional local government organizations with a commitment to sustainable development. Provides technical consulting, training, and information services to build capacity, share knowledge, and support local government in sustainable development at the local level.

*Mayors Climate Protection Center*—Provide mayors with guidance and assistance to lead their cities’ efforts to reduce greenhouse gas emissions linked to climate change.

*Sustainable Communities Network*—Citizens resource to create healthy, vital, and sustainable communities.

*Institute for Local Self-Reliance*—Innovative strategies, working models, and timely information to support environmentally sound and equitable community development.

*EPA Local Government Resources Center*—Resource for local government officials and other community leaders to help build greener communities.

*Resources for Businesses, States, and Local Governments*—Local government pollution prevention projects and resources.

### Smart Growth Resources

*Smart Growth America*—One stop for the best information on effective growth, development and preservation practices.

*Smart Communities Network*—US Department of Energy site provides information on sustainability including land use planning, green buildings, municipal energy, and rural issues.

### Planning Resources

Allen, G., C. Meyer, D.E. Nelson, and FG. Lee. 2007. *Idaho Land Use Handbook*. Givens Pursley Attorneys at Law.

Arendt, R.G. 1996. *Conservation Design for Subdivisions: A Practical Guide to Creating Open Space Networks*. Washington, D.C.: Island Press.

France, R.L. 2002. *Handbook of Water Sensitive Planning and Design*. Lewis Publishers.

Witten, J. and S. Horsley. 1995. *A Guide to Wellhead Protection*. American Planning Association.

## Appendix A. Contacts and Process for Reporting a Hazardous Materials Release



### Release Reporting Phone Numbers

For immediate assistance: Call 911

National Response Center: (800) 424-8802

Idaho State Communications Center: (208) 632-8000

#### Idaho Department of Environmental Quality

##### **DEQ State Office**

1410 N. Hilton St.  
Boise, ID 83706  
(208) 373-0502

##### **DEQ Boise Regional Office**

1445 N. Orchard St.  
Boise, ID 83706  
ph: (208) 373-0550  
fx: (208) 373-0287  
toll-free: (888) 800-3480

##### **DEQ Coeur d'Alene Regional Office**

2110 Ironwood Parkway  
Coeur d'Alene, ID 83814  
ph: (208) 769-1422  
fx: (208) 769-1404  
toll-free: (877) 370-0017

##### **DEQ Idaho Falls Regional Office**

900 N. Skyline Drive, Suite B  
Idaho Falls, ID 83402  
ph: (208) 528-2650  
fx: (208) 528-2695  
toll-free: (800) 232-4635

##### **DEQ Twin Falls Regional Office**

1363 Fillmore St.  
Twin Falls, ID 83301  
ph: (208) 736-2190  
fx: (208) 736-2194  
toll-free: (800) 270-1663

##### **DEQ Lewiston Regional Office**

1118 "F" St.  
Lewiston, ID 83501  
ph: (208) 799-4370  
fx: (208) 799-3451  
toll-free: (877) 541-3304

##### **DEQ Pocatello Regional Office**

444 Hospital Way, #300  
Pocatello, ID 83201  
ph: (208) 236-6160  
fx: (208) 236-6168  
toll-free: (888) 655-6160

**NOTE:** For non-emergency petroleum releases that are immediately contained and do not present an imminent threat to human health or the environment that are discovered on weekends, holidays or after normal business hours, notification may be postponed until the next business day. Otherwise, afterhours petroleum releases should be reported to State Comm.

## Responding to Petroleum Releases

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### Short-Term Actions

Call 911 for immediate spill assistance.

- Identify and mitigate fire, explosion, and vapor hazards. Some situations may require you to immediately notify your local fire department.
- Take immediate action to prevent any further release of petroleum into the environment.
- Report the release to the Idaho Department of Environmental Quality (IDEQ) within 24 hours.
- Handle contaminated materials, including soil and water, in a responsible manner. This may require safely storing contaminated materials until proper disposal or treatment can be accomplished. Always avoid contaminating previously uncontaminated areas.
- Additional guidance may be obtained from IDEQ regional offices.
- Begin removing free product floating on ground water or in excavations as soon as possible.

## Reporting Requirements for Petroleum Releases

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Owners and operators of petroleum storage tank (PST) systems must report to IDEQ within 24 hours if any of the following conditions occur:

### Underground Releases

- A discovery by owners and operators or others of a petroleum release at the PST site or surrounding area. Discovery can include the presence of free product or dissolved product in nearby surface water or ground water or vapors in soils, basements, and sewer or utility lines.
- Unusual operating conditions observed by owners and operators. These conditions include erratic behavior of product dispensing equipment, sudden loss of product from the PST system or an unexplained presence of water in the PST

system. However, no reporting is required if the PST system equipment is found to be defective but not leaking and is immediately repaired or replaced.

- Monitoring results from a release detection method that indicate a release may have occurred. However, no reporting is required if the monitoring device is found to be defective and is immediately repaired, recalibrated or replaced, and additional monitoring does not confirm a release or, in the case of inventory control, a second consecutive month of data does not confirm a release.

### Above Ground Spills and Overfills

- An above ground spill or overfill of petroleum that results in a release to the environment which exceeds 25 gallons or causes a sheen on nearby surface water must be reported to IDEQ within 24 hours.
- An above ground spill or overfill of petroleum which is less than 25 gallons and does not cause a sheen on nearby surface water need only be reported to IDEQ if cleanup cannot be completed within 24 hours.
- For specific reporting and release requirements from dielectric oil (mineral insulating oil) releases from electric equipment, see the Idaho Water Quality Standards IDAPA 58.01.02.849.

To report a petroleum release to IDEQ during regular business hours, contact the appropriate Department regional office at the number provided at the beginning of this Information Sheet.

### Federal Reporting Requirements

Any person or organization responsible for a release or spill is also required to notify the federal government when the amount reaches a federally-determined limit. Please go to the following EPA web link to determine if a release requires federal reporting: <http://www.epa.gov/emergencies/content/reporting/index.htm>

## Responding to Hazardous Material Spills

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IDEQ rules define 'hazardous material' as a material or combination of materials which, when discharged in any quantity into state waters, presents a substantial present or potential hazard to human health, the public health, or the environment.

### Short-Term Actions

Call 911 for immediate spill assistance.

In the case of an unauthorized release of hazardous materials to state waters or to land such that there is a likelihood that it will enter state waters, the responsible persons in charge must:

- Make every reasonable effort to abate and stop a continuing spill;
- Make every reasonable effort to contain spilled material in such a manner that it will not reach surface or ground waters of the state; and
- Collect, remove, and dispose of the spilled material in a manner approved by the Department

## Reporting Requirements for Hazardous Materials Spills

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### All Hazardous Material Releases

In the case of an unauthorized release of hazardous materials to state waters or to land such that there is likelihood that it will enter state waters, the responsible persons in charge must immediately notify IDEQ or designated agent of the spills. This requirement applies regardless of any additional reporting done under the below requirements. IDAPA 58.01.02.850.

### Releases Exceeding Reportable Quantity (within a 24 hour period)

In the case of a release from a facility into the environment of a hazardous substance in excess of its reportable quantity (within a 24 hour period), the facility must immediately notify the National Response Center (NRC) within a 24-hour period. Reportable Quantities for chemicals and hazardous wastes are found at 40 CFR § 302.4.

### Releases from LQGs and TSDFs

In the case of a Large Quantity Generators (LQGs) and Treatment, Storage, and Disposal Facilities (TSDFs), if the emergency coordinator (or designee) determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment outside the facility, the coordinator must: (1) Notify appropriate local authorities if evacuation of local areas may be necessary; and (2) Notify the NRC and local DEQ office.

In addition, within fifteen (15) days after the incident, the LQG or TSDF must submit a written follow-up report to IDEQ which includes the name, address, and telephone number of the owner/operator and the facility; the date, time and type of incident; the name and quantity of material(s) involved; the extent of any injuries, if any; an assessment of actual or potential hazards to human health or the environment; and estimated quantity and disposition of recovered material that resulted from the incident.

### Releases from Hazardous Waste Tank Systems

If a facility has a release of hazardous waste from a tank system to the environment, they are required to notify the Department within 24 hours. If the release has been reported pursuant to 40 CFR § 302 as noted above, that report will satisfy this requirement. Releases of less than one pound that are immediately contained and cleaned up are exempt from this reporting requirement.

In addition, within 30 days of detection of a release of hazardous waste from a tank system, a written follow-up report must be submitted to IDEQ describing the likely route of migration of the release; the characteristics of the surrounding soil; results of any monitoring or sampling conducted in connection to the release; proximity to down gradient drinking water, surface water, and population areas; and a description of the actions taken or planned.

To report a spill or release to IDEQ during regular business hours, contact the appropriate Department regional office at the number provided at the end of this Information Sheet.

### Federal Reporting Requirements

Any person or organization responsible for a release or spill is also required to notify the federal government when the amount reaches a federally-determined limit. Please go to the following EPA web link to determine if a release requires federal reporting: <http://www.epa.gov/emergencies/content/reporting/index.htm>