

The Cleanup Process

The cleanup process has three main steps:

1. Assessment of the contaminated site

During the assessment phase, soil and water samples from within and around the site are collected and analyzed to determine the type and extent of contamination and what cleanup may be required.

2. Selection of the remedy to clean up the site

During this phase, registered and licensed professionals develop a plan to clean up the site or manage the risk posed by the site. At some sites where the potential for exposure to contamination is minimal, it may be possible to simply monitor while natural processes clean up the site. In other cases, active cleanup may be necessary to treat contaminated soil or water in place or remove it for treatment and disposal.

3. Cleaning up the site (remedial action)

If active cleanup is required, the first step is to build the system that will clean up your site. There are many different types of cleanup systems. Some pump water from the ground for treatment to remove contaminants and others may be designed to remove contaminants from groundwater without pumping. The cleanup system design is determined by the geology of the site, the contaminants present, and time and cost considerations. Once the system is built, it's time to operate and maintain the system.

The Operation and Maintenance (O&M) component of the cleanup process may consist of site visits on a monthly or quarterly basis to make sure the system performs as designed. These site visits may include collection of more soil, water, and air samples to make sure the treatment system is functioning properly and that you are making progress towards cleaning up the site. The O&M phase of cleanup continues for months, and in some cases, years depending on the extent of contamination.

The final component of site cleanup is the monitoring phase. After cleanup appears complete, the remediation system is temporarily shut down and the site is monitored for a period of about one year. This is done to make sure your site is actually clean and no further action needs to be taken on the property. Sometimes contamination reappears during this monitoring period and it is necessary to restart the active cleanup for a period of time.

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Florida

STATE OF THE ENVIRONMENT



Cleaning Up Contaminated Sites

Florida Department of Environmental Protection

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Introduction

So you either know, or assume, your property is contaminated. What do you do? What *can* you do? You know that the property has to be cleaned up. But how? Who will do the cleanup? What are you legally required to do? And who is financially responsible?

This pamphlet -- *Florida, State of the Environment: Cleaning Up Contaminated Sites* -- was created to answer some of the general questions you have about the cleanup of contaminated sites. Although the cleanup process can be difficult and somewhat intimidating, this pamphlet will give you a summary of the process and get you started in the right direction.

What is Contamination?

A contaminant is any substance that, in certain quantities, is known to be harmful or fatal to plant, animal, or human life. In general, when contaminants enter air, soil, groundwater, or surface water, contamination of the environment occurs.

Why is cleanup important?

The prevention and cleanup of contamination caused by releases of chemicals and other waste into the environment is one of the nation's major concerns. But nowhere is it of greater importance than in Florida, where protection of groundwater - the source of almost 90 percent of Florida's drinking water - is essential. Additionally, the recreational benefits and fish and wildlife habitats provided by Florida's clean surface waters also must be protected. Florida's natural resources are vital to the quality of life its residents and visitors expect and enjoy.

We normally think of Florida as a beautiful, unspoiled state, but contamination does exist. While Florida's stringent environmental laws help to prevent contamination by today's activities, actions from the past have left Florida a legacy of thousands of contaminated sites. Even today, disposal of hazardous substances by illegal, "midnight dumpers" or accidental leaks or spills can contaminate groundwater in Florida. Additionally, Florida's rapid growth and frequent changes in land use often result in the need for contaminated site cleanup.

Frequently Asked Questions

Q: How long will it take to clean up the site and how much will it cost?

A: Site cleanup times and costs depend on a number of different things such as the types of contaminants present, the degree and extent of the contamination, and the geology of the site. In other words, no two cleanups are alike; so it is difficult to predict just how much it will cost or how long it will take.

Q: Will cleanup operations disrupt my business or property?

A: They shouldn't. With proper planning and coordination, cleanup activities should cause minimal disruptions to other site activities.

Q: Can I do the cleanup work myself?

A: Probably not. Cleanup work should be done by environmental professionals and experienced cleanup contractors. Some components require certification by registered and licensed professional geologists (P.G.'s) or registered and licensed professional engineers (P.E.'s).

Q: What happens if I don't clean up my site?

A: Many things can happen. Most importantly, the environment remains contaminated, which ultimately may cause health problems for you and others. You probably won't be able to sell your property. And finally, the FDEP, the U.S. Environmental Protection Agency, or affected third parties, could take legal action.

Q: Who or What is "Rebecca"?

A: Risk-Based Corrective Action (RBCA, pronounced "Rebecca") is a process that emphasizes source removal and control to prevent the spread of contamination. To reduce cleanup costs when possible, RBCA allows for reliance on natural processes and time to take care of low-level contamination when it is safe to do so.

Q: What environmental consulting firm should I hire to oversee the cleanup of contamination on my property?

A: Consult with other people experienced with using environmental consulting firms to help you decide which firm will meet your needs. Refer to the yellow pages of your phone book, contact trade associations or contact your local or state environmental agency for a listing of the available environmental consulting firms in your area. The FDEP cannot recommend specific firms. Ask any potential firm how many sites like yours they have cleaned up in Florida.

Q: Will I be liable if I buy a piece of property, which already has contamination?

A: It's likely. Florida's "due diligence" laws make it prudent to conduct an environmental audit prior to purchasing property. In fact, most lenders require it. An environmental audit will determine the likelihood of contamination on a property based on a site background search and assessment activities.

For More Information

Write To:

Florida Department of Environmental Protection
2600 Blair Stone Road, MS 4505
Tallahassee, Florida 32399-2400
Attn: Cleaning Up Contaminated Sites

Internet Addresses:

(Visit your local public libraries, community schools, etc. for access to personal computers and the Internet.)

Division of Waste Management home page:

www.dep.state.fl.us/waste

Florida DEP home page:

www.dep.state.fl.us

State of Florida home page:

www.myflorida.com

Call:

Bureau of Waste Cleanup

- Brownfields Redevelopment (850) 245-8927
- Drycleaning Solvent Cleanup (850) 245-8927
- Hazardous Waste Cleanup (850) 245-8927
- Site Investigation (850) 245-8927
- Technical Review (850) 245-8927
- General Questions (850) 245-8927

Bureau of Petroleum Storage Systems

- Storage Tank Regulation (850) 245-8839
- Petroleum Cleanup Program (850) 245-8839
- General Questions (850) 245-8839

District Telephone Numbers

- Northwest District (Pensacola) (850) 595-8300
- Northeast District (Jacksonville) (904) 807-3300
- Central District (Orlando) (407) 894-7555
- Southwest District (Tampa) (813) 632-7600
- Southeast District (W. Palm Bch) (561) 681-6600
- South District (Ft. Myers) (239) 332-6975



Getting It Right The First Time

You can expedite the cleanup process and reduce cleanup costs if you do the following:

✓ *Conduct Source Removal.*

Source removal includes repairing or removing leaking tanks or piping; removing liquid and sludges from pits, ponds and lagoons; and removing soils saturated with contaminants. In some cases, source removal can be done before site assessment and determination of the final cleanup plan for a site.

✓ *Obtain the services of a reputable environmental consulting firm or cleanup contractor.*

Consultants and contractors that do not correctly complete the steps of the cleanup process may cause these steps to be repeated, resulting in delays and higher costs. The FDEP may require additional work because of consultant or contractor oversight.

Many times, the least expensive estimate is not necessarily the best. Beware of quotes that seem too good to be true. They usually are. An initial assessment by a consultant or contractor may not reveal the entire extent of the contamination, resulting in the need for more assessment and consequently lost time and higher costs.

✓ *Get involved and stay involved.*

In other words, stay informed and become an active participant in the cleanup process. It is important to develop and maintain a good working relationship with the FDEP and the environmental consulting firm or cleanup contractor handling the cleanup. Do not hesitate to ask questions when you do not understand any aspect of the cleanup process. Seek clear explanations in layman's terms.

✓ *Seek the advice of your state and local environmental agencies.*

These agencies were created in part to protect and assist business and community members within their jurisdictions. Also, make sure schedules and standards agreed to by the FDEP are met.