



ENVIRONMENTAL PESTICIDES HAZARDOUS WASTE AIR QUALITY FISHING ADVISORIES HEALTH

"Our communities are only as healthy as the air our children breathe, the water they drink, the earth they will inherit... We have always found a way to clean the environment and grow the economy at the same time. And we'll do it again."

– President William Jefferson Clinton, 1998

Contributors to this chapter include:

Louisiana Department
of Environmental
Quality
225-765-0559

Louisiana Division of
Environmental Health
Services
225-763-3590



ENVIRONMENTAL HEALTH

How is this parish doing?

Pesticide exposure	☺
Swimming and fishing	N/A
Safe drinking water	N/A
Waterbodies' designated uses	N/A
Hazardous waste	N/A
Brownfields	N/A
Toxic release inventory	☹
Indoor air quality	N/A
Ozone nonattainment	☺
Recycling programs	N/A

DID YOU KNOW?

In fiscal year 1998-99, DEHS conducted 15,108 inspections of public accommodations and private premises in response to citizen's complaints of unsanitary conditions. For information on the State Sanitary Code, contact **Office of Public Health Sanitarian Services at 225-763-5553.**

- (1) DEHS, 1999

The environment is the air, water, land and structures that make up communities. A healthy environment can add to quality of life for individuals and communities. When the environment is safe, people are more likely to be free from diseases. Protecting Louisiana citizens against disease-causing contaminants in food, water, air and soil requires collaboration among numerous entities. Government agencies, private businesses, environmental organizations and private citizens all work to maintain a clean and safe environment. Having safe food and water and maintaining healthy homes and businesses positively impact health and quality of life.

The Division of Environmental Health Services (DEHS) protects the public's health by upholding the Louisiana State Sanitary Code. The activities of DEHS sanitarians and engineers reduce the likelihood of disease transmission. Water systems are monitored to assure that water is safe to drink. Restaurants, seafood growing areas, food and drug manufacturers, and the milk and the dairy industry are monitored to assure that Louisiana products are safe for the public. In addition, the DEHS Section of Environmental Epidemiology and Toxicology (SEET) monitors possible human exposures to, and health risks from, events related to chemical agents in the environment. The Louisiana Department of Environmental Quality (LDEQ) monitors air and water quality, chemical spills, toxic releases and efforts to reuse contaminated soil or recycle products.

There are many other agencies and organizations working to maintain a healthy and safe environment. However, in Louisiana communities are faced with many concerns about the environment.

Louisiana is one of the states that produces the highest amounts of hazardous wastes, according to results

from the Toxic Release Inventory. The state also ranks high in the amount of chemicals it releases into its waters, air and soil. People living in Louisiana have expressed fears that, over time, this pollution will harm their health (Section of Environmental Epidemiology and Toxicology, 1998). Environmental factors can cause illness and otherwise affect people's quality of life.

Private and public organizations inform the public about the potentially dangerous effects of chemicals on people's health. Regulations govern how much of which chemicals can be released and disposed. Therefore, it is important for residents to be involved in researching and advocating for policy changes to improve the environment.

This information, combined with a community's own records, can help people prioritize their concerns. Communities can record the number of health complaints that may be related to the problem as well as their own observations of the wildlife,

“ . . . it is important for residents to be involved in researching and advocating for policy change to improve their environment.”



land, air and water around them. Using these bits of information, communities may select one or two environmental issues to address. Some ways that communities positively impact the environment are by recycling, protecting land from development and changing policies on chemical disposal in their area.

This chapter covers:

- Pesticide incidents
- Safe drinking water
- Hazardous waste
- Toxic releases
- Ozone nonattainment
- Swimming and fishing advisories
- Waterbodies supporting designated uses
- Brownfields
- Indoor air quality
- Recycling programs

CAN CHEMICALS IN THE ENVIRONMENT MAKE PEOPLE SICK?

It is difficult to tie a chemical exposure to disease. For a chemical to make someone sick, it must be present in a large enough amount to cause ill effects (Section of Environmental Epidemiology and Toxicology, 1998). Chemicals can be in the air, water, land and homes. Some chemicals are eaten with food or swallowed in water. Others simply absorb through the skin or are inhaled. Children, the elderly and the chronically ill or immune impaired are most at risk for ill effects. In order to tie illness to a chemical, extensive tests on both people and the area have to be done.

It is difficult to determine if exposure to a chemical is causing an illness. Some of the illnesses that people believe are due to chemical exposures are actually more likely to result from other causes (Section of Environmental Epidemiology and Toxicology, 1998). For example, high rates of lung cancer are more likely to be due to cigarette smoking than a one-time chemical exposure. The effects of personal behaviors and possible chemical exposure are difficult to separate. In addition, the illnesses thought to result from chemical exposure can take years and even decades to be diagnosed. Cancer, for example, is a disease that can take a long time to develop. It can take thirty years in the case of some skin cancers. Between the time of possible exposure and illness the person may move, be exposed to another chemical, or adopt behaviors that could lead to illness (Section of Environmental Epidemiology and Toxicology, 1998).

Much more information is needed to connect chemical release amounts to possible health effects. Some of the factors that determine how chemicals affect people include the toxicological properties of the chemical, the condition or state of the chemical once it reaches the community, the extent of exposure and other sources of environmental exposures. In addition, individual characteristics such as genetics, age, gender, nutritional status, family traits, life-style and health status are also factors that play a role in determining how chemicals affect our health (Louisiana Department of Environmental Quality, 1998).

DID YOU KNOW?

Louisiana has eight million acres of harvest reefs of oyster water. DEHS monitors and classifies nine shellfish growing areas according to the National Shellfish Sanitation Program.

- (1) DEHS, 1999



On the other hand, some illnesses may occur right after a chemical exposure. These are *acute* illnesses. They are much easier to explain. For example, if someone gets stomach cramps or vomits after accidentally swallowing a chemical, it was probably due to the chemical (Section of Environmental Epidemiology and Toxicology, 1998).

USE PESTICIDES WISELY

Pesticides can be helpful in getting rid of pests. They are often one of the most common groups of chemicals with which people have contact. In Louisiana, pesticides are used by businesses and industries. They are also used by people at home for controlling insects, termites and rodents. Pesticides are used most safely and effectively when the instructions on the label are followed exactly (Section of Environmental Epidemiology and Toxicology, 1998).

Some Common Household Chemicals

- Pesticides (for fleas, cockroaches, ants, weeds, termites, mold and mildew)
- House bleach
- House cleaners

Preventing exposure:

The most important action a person can take to prevent harmful chemical exposure is to read and follow the product label. People who do not understand the label of a pesticide or household product can call the National Pesticide Telecommunications Network (NTPN). They will help interpret the label:

1-800 858-7378

There are many types of pesticides. Different types can cause different symptoms or health problems. Exposure to pesticides can occur through skin contact, swallowing or breathing the chemical. Health effects also depend on how much and how long an exposure occurred (Section of Environmental Epidemiology and Toxicology, 1998).

For many pesticide exposures, symptoms include headaches, dizziness, muscle twitching, weakness, tingling sensations or nausea. Some may cause long-term damage to the liver and central nervous system (Section of Environmental Epidemiology and Toxicology, 1998).

In 1997 in Louisiana there were 33 incidents, 57 cases, of pesticide exposure reported in 1997. **Of these, in Orleans Parish there were fewer than five reported events** (Section of Environmental Epidemiology and Toxicology, 1998).

Taking Care, Taking Control: "Store Pesticides Correctly"

**Store
pesti-
cides
cor-
rectly:
Aldicarb
lunch
goes bad**

On Sunday, July 19, 1998, 20 company employees got together for a luncheon. The food for this luncheon was prepared by the participants in their own homes. Within 45 minutes after eating, 70 percent of the participants developed acute neurological and gastrointestinal symptoms such as sweating, diarrhea, vomiting, muscle spasms, eye twitching, blurred vision and severe dizziness. While ten participants required medical care, including two who were hospitalized, all recovered within eight hours. The outbreak investigation revealed that cabbage salad served during the luncheon was significantly associated with illness. This led the food preparer of the salad to carefully inspect all

ingredients used, and it was soon detected that what he had thought was ground black pepper in fact turned out to be the most toxic pesticide on the American market – aldicarb, a carbamate pesticide. The pesticide had been stored in an aluminum container labeled "ground black pepper" in the back of a pick-up truck. It turned out that the container had belonged to a recently deceased relative who was also a crawfish farmer. The crawfish farmer used the pesticide illegally around his nets to discourage wild animals such as raccoons. This story illustrates how important it is for any pesticide to be stored in a correctly labeled container.

- For further information: K. Kelso, Office of Infectious Epidemiology, (504) 568-5005.



ENJOYING LOUISIANA WATERS

People of all ages enjoy swimming, fishing and shellfishing in Louisiana. Most of the time fish are a healthy and safe food to eat. They are a source of high protein and are low in fat. But, sometimes, fish may become contaminated with chemicals. These chemicals may be harmful to people if the fish are eaten. At times, the water itself may also contain chemicals that may be harmful to a person's health. This harm may happen if people drink, swim or come in contact with the water.

Pregnant women are particularly at risk to chemical exposures. For example, mercury contamination is thought to result in birth defects. The effects of other chemicals during pregnancy are not yet known. Eating fish and swimming are always good to do during pregnancy. However, eating more fish than is recommended from the posted waterbody when pregnant is not good. Eating one fish is not likely to have ill-effects (Section of Environmental Epidemiology and Toxicology, 1998).

Advisories, or cautions, are issued in Louisiana in order to safeguard and protect public health. The Louisiana Department of Environmental Quality (LDEQ) tests water bodies for bacteria and chemicals.

Sometimes samples from a certain water body are found to contain pollutants that could be harmful to human health. When this happens an advisory may be issued by the Office of Public Health (OPH). These health advisories inform people of the activities that may be unsafe for a certain water body. These might include swimming, boating, fishing and wading. They also inform people of certain types of fish or shellfish from that water body that may not be safe to eat or to eat a lot of (Section of Environmental Epidemiology and Toxicology, 1998).

Fish advisories are published yearly. However, the data on fish are updated more often than that. For a list of advisories people can contact SEET at 504-568-8537 or call toll-free at 1-888-293-7020 or refer to the website at <http://www.dhh.state.la.us>. The Louisiana

Fishing and Swimming Advisories, January 1999 Louisiana Water Body and Contaminant

Bayou Bartholomew*	Mercury
Bayou Bonfouca***	Creosote
Bayou des Cannes*	Mercury
Bayou d'Inde***	Hexachlorobenzene+
Bayou LaFourche (Hwy 80 to I20)*	Dioxin
Bayou Liberty*	Mercury
Bayou Olsen at Lake Charles**	Priority organics
Bayou Plaquemine Brule*	Mercury
Black Lake*	Mercury
Blind River*	Mercury
Bogue Chitto River*	Mercury
Bogue Falaya**	Fecal coliform
Calcasieu River, estuary to the Gulf*	Hexachlorobenzene+
Capitol Lake*	PCBs
Chicot Lake*	Mercury
Devil's Swamp, Devil's Swamp Lake and Bayou Baton Rouge***	Hexachlorobenzene+
Gulf of Mexico off the Coast*	Mercury
Henderson Lake & Lake Bigeux*	Mercury
Lake Pontchartrain**	Fecal Coliform
Lake Vernon*	Mercury
Ouachita River*	Mercury
Pearl River*	Mercury
Seventh Ward Canal*	Mercury
Sibley Lake*	PCBs
Tangipahoa River**	Fecal Coliform
Tchefuncte River**	Fecal coliform
Tensas River*	DDT+
Toledo Bend north of Pine Island*	Mercury
Toledo Bend in San Patricio Arm*	Mercury
Wham Brake*	Dioxin

* fish advisory ** swimming advisory *** swimming and fish advisory + only one of several contaminants listed
NOTE: These advisories indicate potential problems. Fish from the waters with fish advisories can still be eaten. For more information, contact the Louisiana Department of Environmental Quality at 225-765-0511.
Source: (4) Louisiana Department of Environmental Quality, 1999.

**DID YOU KNOW?**

Eighty-eight percent of Louisiana citizens are served by public water systems.

Over 50,000 water samples are gathered and tested annually to assure chemical, bacteriological and radiological quality of water as proscribed by the U.S. Environmental Protection agency.

- (1) DEHS, 1999

Department of Environmental Quality is available at 225-765-0511 or <http://www.deq.state.la.us>.

The public's interest in water quality is protected by a unique partnership. The state departments of Health and Hospitals, Environmental Quality, Wildlife and Fisheries and Agriculture and Forestry entered into an interagency agreement in 1997. The purpose was to decide jointly which water bodies in the state needed health advisories. The agencies based their decisions on levels of environmental contamination. That same year, the Louisiana legislature provided funding to assess mercury levels in fish. The legislature also funded free blood screening services in parishes where high levels of mercury had been found.

The agencies, working with representatives of the Sierra Club and the Audubon Society, produced two informative brochures. These publications were widely dispersed throughout Louisiana from a number of sources. These places included parish health units, OB/GYNs' and pediatricians' offices. One was for the general public. The other was directed toward pregnant women and mothers of small children. These publications are available on the DHH website (Section of Environmental Epidemiology and Toxicology, 1998).

Safe drinking water

Groundwater can be exposed to run off and contamination from chemicals above ground. Many people get their water from wells and other sources that groundwater can seep into. Contamination is easier to prevent than it is to clean. The well head protection program is designed to protect the quality of drinking water supplies obtained from community wells. Protecting the quality of drinking water in this case is done by protecting the surface and subsurface area around a water well (Louisiana Department of Environmental Quality, 1998). **Currently, 14.2 percent of groundwater public water systems in Louisiana participate in the well head protection program.** This means that of all the people who are served by public water systems that get their drinking water from groundwater, over 40 percent are part of the well head protection program (Louisiana Department of Environmental Quality, 1998).

Drinking water is often taken for granted. Yet some systems are in need of improvement and repair. In the federal fiscal year 1999, the federal government released \$775 million to states for low interest loans (Environmental Health Services, 1999). These loans are to help communities upgrade their drinking water treatment systems and protect watersheds. The Environmental Protection Agency (EPA) is releasing \$93.8 million in grants to states to support their drinking water programs.

Louisiana's share of the \$775 million low interest loans was \$10,427,000.

Louisiana's share of the \$93.8 million in grants was \$1,439,000 (Environmental Health Services, 1998). In addition, all community drinking water systems in the nation were required to mail or deliver a report on the quality of their water to each consumer with their water bill by the end of 1999. This report is required under the



Consumer Confidence Rule. Systems operators must also make a “good faith” effort to reach any additional people living on the property. This includes renters and workers who do not receive water bills directly. The report must include:

- Information on the source of the water;
- The type of water, i.e. surface, groundwater and the body or bodies of water;
- A source water assessment;
- A definition of disinfection by-products and other chemicals;
- Information on contaminants such as cryptosporidium and radon;
- Status of compliance with National Primacy Drinking Water Standards; and
- Variances and exceptions granted ([2] Department of Environmental Health Services, 1999).

Water bodies supporting their designated uses

Another way to measure the quality of surface water is to look at how well lakes, reservoirs and streams meet their designated use categories. Categories include primary and secondary contact recreation and fish/wildlife breeding. Drinking water supply, agriculture and outstanding natural resource uses as determined by LDEQ are also included. There are many possible causes of why water bodies do not support their use. Likewise, there are many strategies to improve water bodies. Runoff from land areas is a major problem that contributes to poor water quality. Some water bodies have shown marked improvement after

Louisiana Waterways Fully Supporting Designated Uses, 1998

- Bayou Bonne Idee Headwaters to Boeuf River
- Bayou D'Arbonne ... From Bayou D'Arbonne Lake to Ouac River
- Bayou Desiard and Lake Bartholomew
- Bayou Teche Charenton Canal to Wax Lake Outlet
- Bay Gardene, Black Bay, Lost Bayou, American Bay and Bay Crabe
- Beckwith Creek Headwaters to West Fork Calcasieu
- Calcasieu River Basin Coastal Bays and Gulf waters to State three-mile limit
- Cypress Creek Headwaters to Bayou D'Arbonne
- Intracoastal Waterway Houma to La Rose
- Intracoastal Waterway Bayou Boeuf Locks to boundary between segments 1204 and 1203
- Hickory Branch Headwaters to West Fork Calcasieu
- Houma Navigation Canal Houma to Bayou Pelton
- Lac Des Allemands
- Lake Bruin (Oxbow Lake)
- Lake Palourde
- Lake Petit
- Lake Providence (Oxbow Lake)
- Lower Atchafalaya Basin Floodway Whiskey Bay Pilot Channel at mile 54 to U.S. Hwy 90 Bridge in Morgan City
- Lower Atchafalaya River U.S. Hwy 90 Bridge in Morgan City to Atchafalaya Bay
- Mermentau River Catfish Point Control Structure to Gulf of Mexico
- Mississippi River .. From Arkansas State Line to Old River Control Structure
- Moss Lake
- Prien Lake
- Red River Arkansas State Line to Alexandria
- Red River Alexandria to Old River Control Structure Diversion Channel
- Sabine River Toledo Bend Dam to confluence with Old River below Sabine Island Wildlife Management Area
- Terrebonne Basin Coastal Bays and Gulf Waters to State three-mile limit
- Thibodaux Swamp Forested Wetland 6.2 miles southwest of Thibodaux
- Toledo Bend Reservoir Texas-Louisiana Line to Toledo Bend Dam
- Turkey Creek Headwaters to Turkey Creek Cutoff and Turkey Creek Cutoff to Big Creek
- Twelve Mile Bayou Origin to Red River

(3) Louisiana Department of Environmental Quality, 1999.

* This means the waterway can be used for swimming, boating, fishing, recreation or any other use it has been identified for.

**DID YOU KNOW?**

These are the National Priorities List sites listed for Louisiana by the EPA:

Ascension Parish

- Dutchtown Treatment Plant
- Old Inger Oil Refinery

Calcasieu Parish

- Gulf State Utilities-North Ryan Street

East Baton Rouge Parish

- Petro-Processors of Louisiana Inc.

East Feliciana Parish

- Central Wood Preserving Co.

Livingston Parish

- Combustion, Inc

Orleans Parish

- Agriculture Street Landfill

Rapides Parish

- Ruston Foundry Landfill

St Tammany Parish

- Bayou Bonfouca
- Madisonville Creosote Works

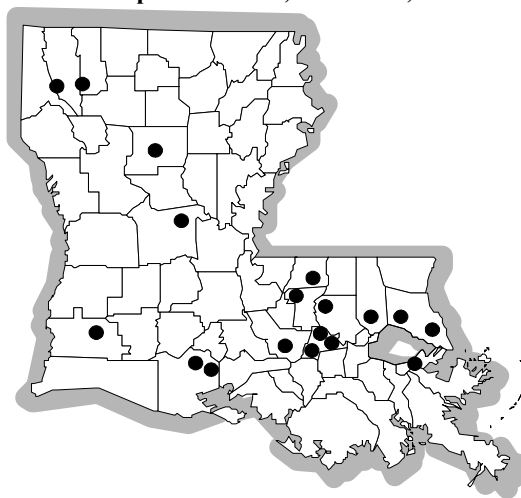
Tangipahoa Parish

- Delatte Metals

Vermillion Parish

- D.L. Mud, Inc.

**Figure 1:
Superfund Sites, Louisiana, 1998**



Source: (2) Environmental Protection Agency, 1998

aggressive state and local interventions.

HAZARDOUS WASTE

Hazardous wastes are toxic substances or dangerous chemicals that are not being used or those that have not been disposed of properly. These wastes can pollute the environment. They can also cause harm to people's health. A

hazardous waste site is a field, landfill, or any place where hazardous wastes have been left or thrown away. SEET has worked on over 30 hazardous waste sites in Louisiana. There are close to 600 sites in the state (Section of Environmental Epidemiology and Toxicology, 1998).

Sites can be placed on the National Priorities List (NPL) by the EPA. This list includes Superfund sites, proposed Superfund sites and occasionally sites which are of public interest but are not proposed or Superfund sites. Superfund sites qualify for federal cleanup money. There were 15 finalized Superfund sites in Louisiana as of 1999. In addition, there are eight sites where clean up has been completed and two proposed sites. Once the EPA judges a sight to be no longer a threat, it is deleted from the NPL. Three sites have been deleted so far (Louisiana Department of Environmental Quality, 1998).

People who find dumped waste should call for help before touching or moving the waste on their own. For assistance contact SEET toll free at 1-888-293-7020. SEET has provided public health consultations on all Superfund sites throughout Louisiana (Section of Environmental Epidemiology and Toxicology, 1998).

There is also an effort to reuse contaminated land called brownfields. These fields are former industrial sites whose use is limited by contamination. Those who reclaim them for business and commerce may be able to receive funding from federal sources in direct monies or tax relief. Although no brownfield projects have begun in Louisiana, they will be started with the onset of new regulations in 1999 (Louisiana Department of Environmental Quality, 1998).



TOXIC RELEASES

The Toxic Release Inventory (TRI) provides information on the amount of toxic chemicals released and transferred to the environment. Certain manufacturing facilities are required to submit this information under the Emergency Planning and Community Right to Know Act, which is available to the public on the internet and in a printed annual report. **In the most recent data report in 1997, Louisiana had the second largest amount of toxic releases nationally, with approximately 184 million pounds in total release of toxic chemicals.** In fact, that is a 74 percent decrease from the amount released in 1987, the baseline year used for comparison purposes.

Orleans Parish reported approximately 248,000 pounds of toxic releases in air, water, land or underground in 1997. However, toxic chemicals do not recognize borders. Residents should inquire about the release patterns of nearby parishes as well as their own. According to LDEQ, TRI data alone can not determine health risk to a community or an individual (Louisiana Department of Environmental Quality, 1998).

BREATHING FREE

The air is full of dust and chemicals that can not always be seen or smelled. Indoor air is affected by outdoor air. Indoor air quality (IAQ) has a greater effect on people's health than outdoor air because it is what they are most likely to be exposed to.

NPL sites continued:

- Gulf Coast Vacuum Services
- PAB Oil & Chemical Service, Inc.

Webster Parish

- Louisiana Army Ammunition Plant

Winn Parish

- American Creosote Works, Inc.

- Environmental Protection Agency, 1999.

Toxic Releases in Louisiana and Orleans, 1997

Release locale	Louisiana	Orleans
Air	75 million pounds	245 thousand pounds
Water	47 million pounds	3 thousand pounds
Land	7 million pounds	0
Underground	54 million pounds	0

* Not all parishes report releases.
Source: (2) Louisiana Department of Environmental Quality, 1999.

Taking Care, Taking Control: Restoring Wetlands

A few years ago, St. Bernard Parish residents faced a dilemma. The EPA determined that waste water effluent at one of their treatment plants needed additional treatment (tertiary treatment) in order to meet new, more stringent standards. An alternative to more treatment was pumping the treated water into the Mississippi River – a venture that would cost about one million dollars for infrastructure, a tremendous burden to a small parish.

Then an idea was voiced – why not release treated water into an environment the parish wanted to protect? The Poydras-Verret wetlands had been adversely affected by the construction of the Mississippi River Gulf Outlet, which upset the balance of fresh and salt water. More fresh water in the wetlands would improve plant growth, and replenish native inhabitants, including cypress trees and other native plants.

An initial study was conducted by the Coastal Ecology

Institute at Louisiana State University and the Tulane University School of Public Health and Tropical Medicine. It was commonly believed that the wetlands environment, rich with decaying materials, would be ideal for recycling treated waste water. The wetlands performs the additional treatment by removing nutrients through natural breakdown of organic matter.

The follow-up study of the effect of treated waste water in the wetlands has shown that there was a significant restoration of the cypress swamp that had been killed in the Gulf Outlet construction. Soil and water tests found no toxicity for potentially dangerous metals. In addition, the levels of oxygen-depleting organics, nutrients and chloride were ideal for wetland regrowth.

- Source: Using Wastewater Effluent for Wetlands Restoration - A Case Study, A.J. Englands, Guang Jin and John W. Day, Jr., February 1999

- For further information: Jeff Waters with the Lake Pontchartrain Basin Foundation, 3900 Causeway Blvd., Metairie, LA 7000x at 504-836-2215

**Suc-
cessful
water
recy-
cling:
St.
Bernard
Parish
finds a
solution
to waste
water**

**DID YOU KNOW?**

The common sources of toxins in indoor air are:

- tobacco smoke;
- carbon monoxide;
- bacteria;
- molds and mildew;
- viruses;
- dust mites;
- cockroaches;
- pollen;
- pet dander;
- paint;
- cleansers;
- disinfectants;
- nitrogen dioxide;
- formaldehyde;
- pesticides;
- lead;
- asbestos; and
- radon.

- Section of Environmental Epidemiology and Toxicology, 1998.

Indoor air (IAQ)

According to the EPA, the air within homes and other buildings can be more seriously polluted than the outdoor air. Other research also indicates that people spend approximately 90 percent of their time indoors. Thus for many people, the risks to health may be greater from pollutants indoors than outdoors. People come into contact with potentially toxic chemicals more often indoors than outdoors. These substances can become trapped. These substances can then build up inside buildings (Section of Environmental Epidemiology and Toxicology, 1998).

Health effects from indoor air pollutants may be felt soon after exposure or years later. Immediate effects may include irritation of eye, nose and throat. Headaches, dizziness and fatigue are other symptoms. Such sudden effects are usually short term and have treatable symptoms. These symptoms may show up after exposure to indoor air pollutants (Section of Environmental Epidemiology and Toxicology, 1998).

Some health effects may show up years after exposure has occurred or after long and repeated periods of exposure. These effects include some respiratory diseases, heart disease and cancer, which can cause severe symptoms or even be fatal. It is important to improve the quality of air inside homes and buildings even if symptoms are not noticeable. SEET provides information on indoor air quality (IAQ) and health toll free at 1-888-293-7020 (Section of Environmental Epidemiology and Toxicology, 1998).

Outdoor air

In the state of Louisiana, the air meets all the National Ambient Air Quality Standards, except for ozone. Ozone is a serious air pollutant linked to industrial and transportation sources. Ozone is the main ingredient in urban smog and leads to shortness of breath, wheezing, coughing, headaches, nausea and eye and throat irritation. Ozone

Taking Care, Taking Control: Christmas Trees and Coastal Protection

taking control

Volunteer program:
Using trees to make new wetlands

What do Christmas trees have to do with Louisiana swamps? A lot, it seems, in Jefferson and other parishes! Several years ago a few Louisiana State University professors visiting the Netherlands observed a program to capture sediment by using recycled brush and trees woven together at the shore's edge. They returned to Louisiana with the idea that Christmas trees, which usually end up in solid waste land fills, could do the same for the Louisiana coast.

In response to their suggestion, the Louisiana Department of Natural Resources made available grants to the coastal parishes interested in a Christmas tree project. Instead of weaving trees, the program decided to build wooden cribs to hold bundled trees. Sediment-bearing water has the energy to go through the barrier of trees, but not enough energy to pass back out carrying the silt. The silt is dropped behind and around the

barriers, making more terrain for grasses and plants to take root. The barrier also protects the new wetlands from destructive waves and surges that tear up new plant growth. The idea has grown into a massive volunteer effort in Jefferson Parish. It has spread to other parishes, too. In Jefferson Parish there are over 500 people and dozens of corporations involved, including Texaco, Exxon, fishermen, students, scouts and environmental and civic groups.

Since 1991, over 500,000 trees have been recycled. In 1997, the White House Christmas tree was sent to Louisiana for recycling. The Louisiana Army National Guard even uses the airlift of Christmas tree bundles each year as a training exercise.

- For further information: The Jefferson Parish Christmas Tree Recycling Program: Marnie Winter 504-736-6440, 736-6445 fax or Jason Smith 504-838-4230, 838-4256 fax



information is collected by the LDEQ from monitoring stations statewide. **According to their records, the number of parishes rated as an ozone nonattainment parish has gone down from 20 in 1979 to six in 1997.** Nonattainment means that levels of ozone exceed acceptable limits. The parishes which still have ozone nonattainment ratings are:

- East Baton Rouge;
- West Baton Rouge;
- Livingston;
- Iberville;
- Ascension; and
- LaFourche ([1] Louisiana Department of Environmental Quality, 1999).

Meeting Ambient Air Quality Standards

Forty-four monitoring stations statewide record air quality. They are mostly located in the industrial regions of Calcasieu Parish and the Mississippi River parishes. This area ranges from Point Coupee through Plaquemines. Five parishes centered around and including East Baton Rouge are currently designated as serious non-attainment area for ozone. If attainment is not reached soon, the EPA could use tighter emission control requirements on all area sources (Louisiana Department of Environmental Quality, 1998).

RECYCLE

Recycling reduces the bulk of garbage going to landfills and conserves energy. It's impressive to know that there are many recycling programs in the state. But there's always room for improvement. Fifteen parishes have curbside or limited curbside pick-up.

Orleans Parish has buy back, drop-off, and full-curbside recycling (Louisiana Department of Environmental Quality, 1999).

FUTURE TRENDS

The Louisiana Department of Health and Hospitals realizes the importance of empowering the community. SEET has implemented a new public health education program. This program concentrates

DID YOU KNOW?

It takes 95% less energy to make recycled aluminum than to make new aluminum from bauxite ore.

- (2) Louisiana Department of Environmental Quality, 1998.

Five reasons to recycle today

Save resources: By reusing materials, we conserve land and reduce the need to dig or drill.

Save energy: It takes less energy to make recycled products.

Save clean air and water: Making products from recycled materials creates less air pollution and water pollution.

Save landfill space: When materials you recycle go into new products, they don't go into landfills.

Save money and create jobs: Recycling creates far more jobs than landfills or incinerators, and is less expensive than waste management programs.

(2) Louisiana Department of Environmental Quality, 1998

Recycling in Orleans, in tons, 1997

Glass	1,558
Plastic	1,270
Newspaper	0
White Paper	0
Magazines	0
Yard wastes	0
Waste tires	3,081
Acid batteries	0
Aluminum	199
Cardboard	0
Appliances	0
Steel cans	539
Telephone books	0
Wood	0
Source: (1) Louisiana Department of Environmental Quality, 1999.	



on the safe use of methyl parathion and other types of pesticides. SEET also provides resources to local parish health units (Section of Environmental Epidemiology and Toxicology, 1998).

Testing the fish

In the future, more water bodies in the state of Louisiana will be tested for mercury and other chemical contaminants. More information will tell people how to reduce the effects of eating chemically contaminated fish. At the same time, it will also help communities to continue to eat their fish, which are good for health (Section of Environmental Epidemiology and Toxicology, 1998).

Assessing hazardous waste sites

In the near future, health consultations on hazardous waste will be brief, and the consultations will be in response to specific exposure questions. These health consultations will take less time yet be more responsive to specific concerns (Section of Environmental Epidemiology and Toxicology, 1998).

Mapping cancer

SEET will address community concerns about the occurrence of cancer at area levels smaller than a parish. They will do this using a geographic information system. This mapping will allow information to be more specific to an area within the parish (Section of Environmental Epidemiology and Toxicology, 1998).

Faster response to chemical spills

SEET plans on working with physicians and other health professionals across the state of Louisiana to develop a rapid response system for emergency events involving chemicals. This will allow them to respond more quickly and correctly to individuals who are exposed to chemicals in their environment (Section of Environmental Epidemiology and Toxicology, 1998).

THE COMMUNITY CAN ...

- ❶ Understand how environmental regulations are made**
 - Environmental regulations are made through a legal and legislative process. Communities can investigate the regulations, assist in enforcing them and advocate for change if they need or want to.
 - Put environmental improvements high on the political agenda.
- ❷ Educate your community members on the safe use of pesticides**
 - Read the label and follow the directions. The label lists the legal uses of the product. It will also tell you how to dispose of it later.
 - Air out the area well after pesticide use. Mix or dilute pesticides outdoors.



- Use non-chemical methods of pest control when possible. This might include appropriate watering, fertilizing and aerating the lawn. Keeping food properly stored and keeping living spaces clean can also help control pests.
- Call the National Pesticide Telecommunications Network (NPTN) for more information about pesticide use 1-800-858-PEST. Or call the Louisiana Office of Public Health, Section of Environmental Epidemiology and Toxicology (SEET) toll free at 1-888-293-7020.

If you or someone you know is accidentally sprayed with pesticides:

- Remove sprayed clothing and clean pesticides off immediately with soap and water
- Seek medical attention or call the Poison Control Center toll-free at 1-800-256-0822.
- Call the Louisiana Department of Agriculture and Forestry (LDAF) at their 24 hour hotline (504-925-3763) and make a health complaint. A LDAF inspector will visit you.
- With your permission, SEET will obtain your medical records and the information collected by the LDAF. They will then evaluate the short and long term health effects of the described exposure. LDAF will take the appropriate regulatory action if any is required.

③ **Fish and water advisories**

- Increase awareness in your community of water bodies that may have advisories on activities. These include fishing, swimming, boating or wading.
- To obtain a list of advisories or to check to see if fish from a certain water body in your community are safe to eat, you may contact SEET toll-free at 1-888-293-7020.
- For information about shellfisheries, call the Division of Environmental Health Services at 1-800-256-2775.

④ **Hazardous waste**

Here are some simple steps to protect yourself from hazardous waste:

- Stay off restricted areas.
- Do not allow children to play on or near a site.
- Become informed. Learn more about the health effects of certain chemicals. For more information on health and hazardous waste sites, call SEET toll-free at 1-888-293-7020.
- Have your soil or water tested if you have serious reason to think it may be contaminated.



- If you think you have had a health effect from a chemical exposure see your doctor.

Educate people in your community about factors that contribute to cancer. If you notice an unusually high amount of a particular type of cancer clustered in a very small geographic area over a short period of time, you may contact SEET toll free at 1-888-293-7020. For more information on cancer, including cancer prevention, call:

- OPH Chronic Disease Program at 504-568-7210;
- For information on breast and cervical cancer, call toll free 1-888-599-1073;
- Louisiana Tumor Registry at 504-568-6035; or
- American Cancer Society at 1-800-ACS-2345.

⑤ Chemical spills

If there has been a chemical spill (or accident) in your neighborhood, take the following steps:

- Call the State Police (504-925-6596) or LDEQ (1-888-763-5424 or for emergency response 504-765-2568) to report the event.
- Make sure you receive any necessary medical attention.
- Listen to your TV or radio for up to the minute instructions. LDEQ will handle the spill clean-up. SEET will provide information on potential health effects from the spilled or released chemical(s).

⑥ Improve your water quality

- Get information about the contents of your water and advocate for change if you need to.
- Use filters in your home to provide cleaner water for drinking, boiling and cleaning vegetables and fruits. Remember, filters must be changed before or at the recommended times in order to be effective.

⑦ Breathe free

- The majority of indoor air contamination results from Environmental Tobacco Smoke (ETS). Ask smokers to smoke outside, instead of in your home or workplace.
- Join vanpools, carpools or use public transportation to support reducing ozone production. Ride a bike to work more often. Walk to the store.
- Be careful outside and do not overstrain yourself on Ozone alert days. This includes when you exercise or participate in other activities.



⑧ Leave the environment the way you found it

- If you change the oil in your car yourself, dispose of it appropriately. Large oil change stations often recycle the oil. Don't leave car batteries lying around.
- Make a compost heap. Recycle your leaves, grass clipping and organic food leftovers into fertilizer for your garden. Contact your local garden center for information.

References

- (1) Department of Environmental Health Services. 1999. Program information. Louisiana Department of Health and Hospitals, Office of Public Health.
 - (2) Department of Environmental Health Services. 1999. Informing the Public. Water Funnel. January - March. Louisiana Department of Health and Hospitals, Office of Public Health.
 - (1) Environmental Protection Agency. 1998. keyword: consumer. <http://www.epa.gov/OGWDW/sdwa/consumer.html>
 - (2) Environmental Protection Agency. 1998 Superfund Sites. keyword: superfund. <http://www.epa.gov/superfund/sites/npl/la.htm> or <http://www.deq.state.la.us/oshw/ias/suprfund.htm>
- Environmental Protection Agency. 1999. NPL Sites in the State of Louisiana. Updated October 4, 1999. keywords: NPL and Louisiana. <http://www.epa.gov/oerrpage/superfund/sites/npl/la.htm>.
- (1) Louisiana Department of Environmental Quality. 1999. Program information.
 - (2) Louisiana Department of Environmental Quality. 1999. Toxic Release Inventory.
 - (3) Louisiana Department of Environmental Quality. 1999. Water Quality Inventory.
 - (4) Louisiana Department of Environmental Quality. 1999. Fishing and Swimming Advisories.
 - (1) Louisiana Department of Environmental Quality. 1998. Program information.
 - (2) Louisiana Department of Environmental Quality. 1998. keyword: recycling/ www.deq.state.la.us/assistance/recycling/home/5reasons.htm
- President William Jefferson Clinton. 1998. State of the Union Address, Hall of the House, United States Capitol. <http://www.whitehouse.gov>. path: "The President and Vice President" to "Office of the President" to "Some of the President's Public Addresses" to "State of the Union 1-27-98"
- SEET. 1998. Section of Environmental Epidemiology and Toxicology program information. Louisiana Department of Health and Hospitals. Office of Public Health. Department of Environmental Health Services.



ENVIRONMENTAL
HEALTH

The Profiles are a work-in-progress. These documents are public information written for the benefit of the public. Our request to you, the reader, is to complete and return the evaluation form that is included in this document to help us know how to improve for the next issue. Also, let us know what you found helpful for your work in communities.

Thank you.