

## Questions & Answers

■ **Q:** Why are our lakes, rivers, and estuaries muddy and filled with debris after a heavy rain? Why can't we fish and swim in many of our waters despite the millions of dollars already spent on pollution control?

■ **A:** Largely because of a type of pollution called "nonpoint source pollution." Since the early 1970s, federal and state governments have focused on controlling discharges from sewage treatment and industrial plants. Now that we've made progress in controlling these sources, state and local governments are concentrating on the serious water quality problems associated with nonpoint source pollution.

■ **Q:** What is nonpoint source pollution?

■ **A:** Nonpoint source pollution, unlike pollution from industrial and sewage treatment plants, it comes from many diffuse sources. Nonpoint source pollution is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters, and even our underground sources of drinking water. These pollutants include

- excess fertilizers, herbicides, and insecticides from agricultural lands and residential areas;
- oil, grease, and toxic chemicals from urban runoff and energy production;
- sediment from improperly managed construction sites, crop and forest lands, and eroding streambanks;
- salt from irrigation practices and acid drainage from abandoned mines;
- bacteria and nutrients from livestock, pet wastes, and faulty septic systems;

Atmospheric deposition and hydromodification are also sources of nonpoint source pollution.

■ **Q:** What are the effects of these pollutants on our waters?

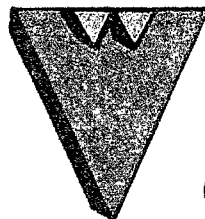
■ **A:** States report that nonpoint source pollution is the leading remaining cause of water quality problems. The effects of nonpoint source pollutants on specific waters vary and may not always be fully assessed. However, we know that these pollutants have harmful effects on drinking water supplies, recreation, fisheries, and wildlife.

■ **Q:** What causes nonpoint source pollution?

■ **A:** We all play a part. Nonpoint source pollution results from a wide variety of human activities on the land. Each of us can contribute to the problem without even realizing it.

■ **Q:** What can we do about nonpoint source pollution?

■ **A:** We can all work together to reduce and prevent nonpoint source pollution. Some activities are federal responsibilities, such as ensuring that federal lands are properly managed to reduce soil erosion. Some are state responsibilities, for example, developing legislation to govern mining and logging, and to protect groundwater. Others are best handled locally, such as by zoning or erosion control ordinances. And each individual can play an important role by practicing conservation and by changing certain everyday habits.



# hat you can do

## Urban Stormwater Runoff\*

- Keep litter, pet wastes, leaves, and debris out of street gutters and storm drains—these outlets drain directly to lakes, streams, rivers, and wetlands.
- Apply lawn and garden chemicals sparingly and according to directions.
- Dispose of used oil, antifreeze, paints, and other household chemicals properly, not in storm sewers or drains. If your community does not already have a program for collecting household hazardous wastes, ask your local government to establish one.
- Clean up spilled brake fluid, oil, grease, and antifreeze. Do not hose them into the street where they can eventually reach local streams and lakes.
- Control soil erosion on your property by planting ground cover and stabilizing erosion-prone areas.
- Encourage local government officials to develop construction erosion/sediment control ordinances in your community.

## Mining\*

- Become involved in local mining issues by voicing your concerns about acid mine drainage and reclamation projects in your area.

## Forestry\*

- Use proper logging and erosion control practices on your forest lands by ensuring proper construction, maintenance, and closure of logging roads and skid trails.
- Report questionable logging practices to state and federal forestry and state water quality agencies.

## Agriculture\*

- Manage animal waste to minimize contamination of surface and groundwaters.
- Protect drinking water by using less pesticides and fertilizers.
- Reduce soil erosion by using conservation practices and other applicable best management practices.
- Use planned grazing systems on pasture and rangeland.
- Dispose of pesticides, containers, and tank rinsate in an approved manner.

\* EPA has developed regulations requiring the control of stormwater discharges, including some types of runoff from urban areas, construction sites, mining areas, and animal feedlots. Call EPA or your state water quality agency for more information.

# **F**or more Information?

Contact the U.S. Environmental Protection Agency Nonpoint Source Coordinator in your Region.

**REGION I—Connecticut, Maine, Massachusetts,  
New Hampshire, Rhode Island, Vermont**

John F. Kennedy Federal Building, Boston, MA 02203  
Phone: 617/565-3513

**REGION II—New Jersey, New York, Puerto Rico,  
Virgin Islands**

26 Federal Plaza, Room 813, New York, NY 10278  
Phone: 212/264-8632

**REGION III—Delaware, Maryland, Pennsylvania, Virginia,  
West Virginia**

841 Chestnut Building, Philadelphia, PA 19107  
Phone: 215/597-3429

**REGION IV—Alabama, Florida, Georgia, Kentucky,  
Mississippi, North Carolina, South Carolina, Tennessee**

345 Courtland Street, N.E., Atlanta, GA 30365  
Phone: 404/347-2126

**REGION V—Illinois, Indiana, Michigan, Minnesota, Ohio,  
Wisconsin**

77 West Jackson Boulevard, Chicago, IL 60604  
Phone: 312/886-0209

**REGION VI—Arkansas, Louisiana, New Mexico,  
Oklahoma, Texas**

1445 Ross Ave., Dallas, TX 75202  
Phone: 214/655-6683

**REGION VII—Iowa, Kansas, Missouri, Nebraska**

726 Minnesota Avenue, Kansas City, KS 66101  
Phone: 913/551-7475

**REGION VIII—Colorado, Montana, North Dakota, South  
Dakota, Utah, Wyoming**

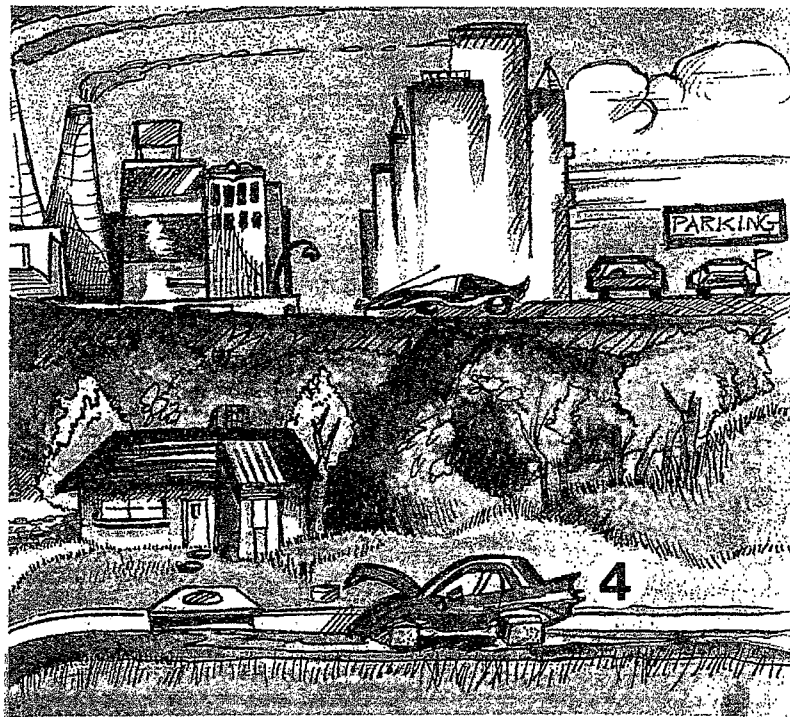
One Denver Place, 999 18th St., Denver, CO 80202-2405  
Phone: 303/293-1703

**REGION IX—Arizona, California, Hawaii, Nevada**

215 Fremont Street, San Francisco, CA 94105  
Phone: 415/744-2011

**REGION X—Alaska, Idaho, Oregon, Washington**

1200 6th Avenue, Seattle, WA 98101  
Phone: 206/553-4181



■ **<sup>1</sup> Forestry** – Improper logging practices fill reservoirs with sediment and smother spawning areas for fish.

■ **<sup>2</sup> Agriculture** – Excess fertilizers and sediments can drain into lakes, bays, and rivers, causing abnormal growths of algae and underwater weeds. By accumulating through the food chain, pesticides can have long-term effects on wildlife and human health.

■ **<sup>3</sup> Urban Stormwater Runoff** – Road salt, soil, lawn and garden chemicals, and pet wastes travel via street and storm drains to nearby rivers, lakes, and estuaries, preventing recreational uses and destroying commercial fishery resources.

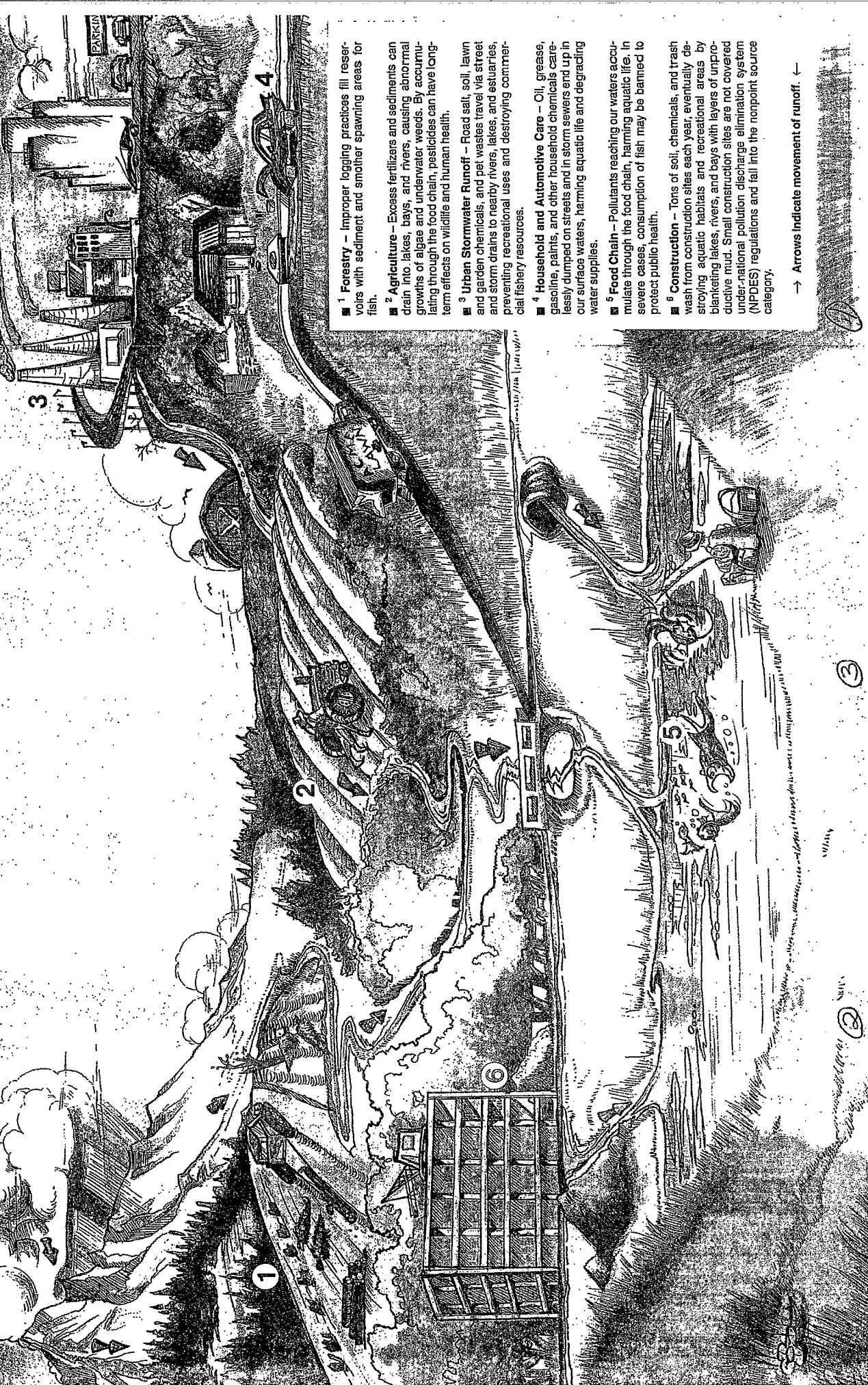
■ **<sup>4</sup> Household and Automotive Care** – Oil, grease, gasoline, paints, and other household chemicals carelessly dumped on streets and in storm sewers end up in our surface waters, harming aquatic life and degrading water supplies.

■ **<sup>5</sup> Food Chain** – Pollutants reaching our waters accumulate through the food chain, harming aquatic life. In severe cases, consumption of fish may be banned to protect public health.

■ **<sup>6</sup> Construction** – Tons of soil, chemicals, and trash wash from construction sites each year, eventually destroying aquatic habitats and recreational areas by blanketing lakes, rivers, and bays with layers of unproductive mud. Small construction sites are not covered under national pollution discharge elimination system (NPDES) regulations and fall into the nonpoint source category.

→ Arrows indicate movement of runoff. ←

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