United States
Environmental Protection
Agency

Region 5
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EPA

Environmental Quality and Community Growth

HOW TO AVOID FLOODING, TRAFFIC CONGESTION, AND HIGHER TAXES IN YOUR COMMUNITY

Our Use of Land Affects Our Daily Lives

Do you spend too much time in stop-and-go traffic, not only on the highway but in your own community?

Does new development in your community cause flooding?

Are your local streams and lakes polluted from storm-water runoff?

Does your community struggle to pay for extending and maintaining roads, sewers, and other public facilities to keep up with growth?

Can you and your family conveniently walk or bike to shopping centers, schools, work, or parks?

Are properties in older areas becoming abandoned as people and businesses move to the suburbs?

Do you and your family have opportunities to enjoy nature in your community?

It may not be obvious, but the way we plan and develop our communities directly affects the quality of our daily lives. While rapid growth has often produced economic opportunities, our current land-use patterns have had some unforeseen and damaging consequences.

Many of the problems behind the above questions can be traced to urban development, which has many positive impacts, such as increased economic opportunity and housing choices. Yet, development has also caused environmental damage and has exacted social costs, which could have been avoided through thoughtful community planning. As urban development continues, communities can plan their growth in a sustainable and environmentally friendly manner.

This brochure discusses some bad effects of unplanned urban development, what communities can do to lessen the effects, and where community leaders can get more information on sustainable development.

What are the Consequences of Sprawling Development?

Air Pollution

Although car exhaust is cleaner than ever before, there are more cars on the road, and people are driving farther and more often. Activities, such as shopping and recreation are no longer within walking distance of most communities. The result—an increased dependence on the automobile for traveling. And an increase in driving means more air pollution and congestion. In our cities, cars and trucks cause about one-third to one-half of the air pollution. Traffic congestion (idling cars) and the start up of the car (cold start) contribute the most air pollution.

Water Pollution-Flooding

Impermeable surfaces, such as roadways and parking lots increase the volume of water running into streams and rivers. The results are often larger and more severe flooding downstream. Floods are followed by longer periods of below-normal stream levels. Oil and gasoline from roadways and parking lots pollute streams and lakes.

PHOTO: COURTESY OF NATIONAL RESOURCE CONSERVATION SERVI

Loss of Habitat

Sprawling development may destroy or degrade natural ecosystems, such as remaining woodlands, grasslands, and wetlands, and the species that live within them. When natural areas are destroyed, or even bisected by highways, reproduction among birds and animals is impaired.

Loss of Wetlands

As wetlands and forested areas are paved, flooding can become severe. Wetland and forest areas absorb rain water and protect us from some of the effects of flooding. Rare flowers and animals may be sacrificed when wetlands are filled for residential or commercial use, without a clear understanding of the uniqueness of each area.

PHOTO: COURTESY OF NATURAL RESOURCE CONSERVATION SERVIC

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Loss of Prime Farmland

Prime farmland is steadily being lost to residential developments and sprawling commercial areas. For example: between 1970-90, Chicago's metropolitan population rose only 4 percent, but it used up 35 percent more land. Similarly, Greater Cleveland's population dropped 11 percent from 1970-90, while land for residential, commercial, and industrial uses increased 33 percent.

Brownfields

Brownfields are abandoned, idled, or underused industrial or commercial facilities. Prevention, cleanup, and reuse of these sites offer alternatives to urban sprawl and decay. Brownfields redevelopment can also encourage job growth and economic vitality for surrounding communities, eliminate public-health threats, boost property values, improve neighborhood transportation and esthetics, and preserve green areas for farming and wildlife.

Cost and Taxes

While prime farmland requires limited support services, a new subdivision usually requires additional schools, fire and police service, road construction and maintenance, and sewer and water services. Many homes cost more in services than they pay in taxes. In the Midwest, the average home costs $1.20 to service for every $1 paid in taxes—compared to 43 cents for farms, parks, and open spaces. (Sierra Club study and "Living on the Edge—the Costs and Risks of Scatter Development," by American Farmland Trust and Northern Illinois University)

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What Can You Do to Help Your Community Grow Smart?

Residents can promote environmental quality and community growth by asking local officials for a copy of their comprehensive plans and promoting sustainable land-use alternatives at local hearings on specific development projects.

There are encouraging signs of a change in land-development practices that use new approaches to community planning. Cooperation has brought together planners, ecologists, public officials, engineers, and others to invent new strategies that promote smart or sensible growth—growth that can actually improve and protect the environment.

Community Planning

Lack of appropriate planning may result in sprawling development, which leads to adverse effects, such as flooding, higher taxes, and strains on local police and fire departments. Communities can work with citizens to develop plans to guide their zoning, preservation, and development decisions, so that long-term goals—such as economic growth and environmental protection—are met.

PHOTO: COURTESY OF THE LOCAL GOVERNMENT COMMISSI

Infill Development

Infill development uses existing municipal services (roads, schools, sewers)—instead of building in areas that require construction of new services—which cut the overall cost of development. This also decreases the pressure on a community to increase taxes, increases the viability of public transportation, and preserves open space.

Compact Development

Compact development can lower infrastructure costs, decrease impermeable surfaces, and promote a stronger sense of neighborhood. In rural or suburban settings, compact development also preserves natural habitat and farmland while maintaining broad patterns of desired density.

Environmental Quality

Mixed-Use Zoning

Zoning that allows for both businesses and residences can promote neighborhood cohesion, reduce travel time and distance, and cut air pollution. Mixed-use neighborhoods also have easier access for children and the elderly by creating the opportunity to walk or bike. They also reduce vehicle travel and give people greater access to employment, shopping, and services.

Natural Landscaping and Drainage

Natural landscaping can be used for parks, lawns, and recreation, to create esthetically pleasing landscapes. Manmade wetlands, floodplains, and natural drainage systems can be used to absorb and reduce pollution, protect natural areas from degradation due to storm-water runoff, and provide valuable new habitat and flood prevention services.

Street Design

Street design can increase choices for the mode of travel, which in turn can decrease congestion on collector roads. This, in turn, results in less air pollution and more convenience. Increasing connections between streets will improve access between subdivisions and commercial areas. Neighborhood streets can be narrowed to reduce both impervious surfaces and traffic, and encourage pedestrian use.

Multiple Modes of Transportation

Communities have many alternatives to driving cars, thereby lowering auto-dependency and air pollution. These include biking and using public transportation, such as buses and trains. These goals are best met by mixed-use zoning and compact development.

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Why is EPA Involved?

EPA, as well as other organizations charged with protecting the environment, recognize that land-use has had a profound impact on the environmental quality in metropolitan areas. Therefore, EPA is providing information to communities to help make informed development decisions that restore and preserve environmental quality.

EPA is

- Providing information to local governments and metropolitan regions to encourage more sustainable development.
- Working with other Federal agencies to promote coordination of Federal programs in support of sustainable development.
- Serving as a clearinghouse of information and resources to provide support to local governments, developers, engineers, landscape professionals, property owners, and planning organizations.

For More Information

For more information on comprehensive planning and sustainable urban environments, call EPA's toll-free hotline, 800-621-8431.

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Smart Growth Network
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Management Association (ICMA)
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Washington, DC 20002-4201
202-962-3591
www.smartgrowth.org

Sierra Club
1 North LaSalle St., Suite 4242
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312-251-1680
www.sierraclub.org/sprawl

American Planning Association
122 South Michigan Ave., Suite 1600
Chicago, IL 60603-6111
312-431-9100
www.planning.org

Urban Land Institute
1025 Thomas Jefferson St., NW
Suite 500 West
Washington, DC 20007-5207
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www.uli.org

Local governments are the primary land-use decision-makers. For more information, call your local agencies, regional planning bodies, metropolitan planning agencies, or local zoning board.

*Ask for your local soil and water conservation district.