

The Impact of Environmental Mandates on Urban Growth

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Abstract

During the second half of the 20th century, national domestic policies focussed on stimulating and supporting economic development. Urban growth spread outward from city centers and automobile transportation increased. During the 1960s and early 1970s, the potential environmental impacts of these settlement patterns stimulated the enactment of many Federal statutes to protect the environment. These statutes generated detailed rules and regulations that required individual project permits, resulting in conflict and costly processes to reconcile developmental and environmental objectives.

A number of mechanisms are available for bridging the development/environmental gap. Nevertheless, environmental mandates may relate poorly to State and local planning programs and often do not require sufficient mitigation or ensure that project plans, once completed, will be implemented. These issues can be overcome by formulation of a standardized, focussed planning process that can reconcile the aims of environmental statutes with development concerns.

This article assumes that readers are familiar with the typical problems encountered by municipalities and builders determined to produce affordable housing, such as inadequate supplies of zoned land, excessive standards for construction and infrastructure, and application processing delays caused by uncoordinated processes and multiple permits. All of these obstacles can increase the cost of development and thus the price of new housing and can also (through market forces) raise the level of existing housing prices as well. Further, it examines the extent to which environmental mandates can exacerbate the problems or can, in some cases, provide procedures for reconciling environmental and development goals. It also suggests that issues related to affordable housing, urban growth, and environmental protection are part of a larger concern with the development of workable and sustainable urban environments.

Overview

From the end of World War II until the mid-1960s, national domestic policy focussed primarily on economic development. Highway construction was a major priority, as were community development and supporting services such as large-scale water supply programs. The tremendous increase in the U.S. population was accompanied by the movement of development from central cities to suburban jurisdictions and from Northeastern and Midwestern States to Southern and Western ones, particularly California, Texas, and Florida. Urban growth, supported by a dependency on automobile and truck transportation, spread outward from city centers and fostered broad regional communities. These trends in urban development have fostered low-density patterns of land use, scattered urban activity centers, and high rates of automobile usage. They have had a severe impact on native flora and fauna and have increased the consumption of fresh water, either directly for municipal uses or indirectly for agriculture to serve urban populations. The impact on air and water quality within urban regions has been significant.

During the late 1960s and early 1970s, the Nation began to confront the previously unrecognized costs of these settlement patterns to the environment. Congress enacted many laws to protect the environment, including the National Environmental Policy Act (NEPA) of 1969, the Clean Air Act (CAA) of 1970, the Clean Water Act (CWA) of 1972 (CWA), and the Endangered Species Act (ESA) of 1973. These laws were conceived as “command and control” practices that required adherence to detailed rules and regulations in order to obtain permits for development. They were based on the faulty assumption that regulatory requirements would somehow be reconciled with development initiatives on a project-by-project, permit-by-permit basis. Instead, across the Nation, we have witnessed continued conflict between economic and environmental interests and costly, inefficient processes for reconciling the competing concerns. There has been little systematic study of the impact of environmental laws, and arguments for and against the legislation typically are based on assertions and hypotheses rather than documented findings. As enforcement of environmental laws has been stepped up, landowners, builders, and developers have reacted by condemning the policy basis of environmental law as well as the resulting regulations.

However, during the 1980s the Nation began to recognize the costly inefficiencies of the process for achieving both public and private objectives and has now begun to reassess the framework for reconciling these concerns. The increase in our national debt and the international balance of payments deficit have provided an impetus for resolving the issue, as have growing disparities in the quality of life in both central cities and suburbs. A question arises as to whether our “urban systems” are costing us a competitive advantage internationally;¹ national and State systems of environmental protection are being revisited as part of this examination.

The Need for a New Model

There is an increasing awareness that the earlier approach of focussing separately on development and environmental protection must give way to a systemic analysis of our expanding urban systems and resource protection policies. These systems must be efficient if we are to compete effectively in international markets and provide our growing population with an adequate standard of living that includes affordable housing. At the same time, urban growth must be responsive to rising concerns over the sustainability of local and global environments.

The crux of the problem is that both environmental and economic development interests must be perceived as part of a broader framework. For example, concerns regarding the impact of the automobile on air quality and efforts to curtail travel (e.g., using concepts of “jobs/housing balance”) must be weighed against the economic value of increased mobility to regional and national competitiveness. The conflicting interests of Spotted Owls and timber producers in the Northwest or between Coastal California Gnatcatchers and housing in southern California must take into account broader economic considerations, including the cost and availability of housing in the region. A thriving economy and a seemingly inexhaustible supply of land have allowed the Nation to be relatively inefficient in reconciling such concerns. But the burgeoning conflict between conservation and development, as well as the expansion of international competition, will not permit that inefficiency to continue.

We do not mean to suggest that the Nation must sacrifice environmental quality, for we believe that there is sufficient opportunity within our system to accommodate urban growth without such a sacrifice. To do so, however, requires that key issues be addressed, including the interests of private versus community property, equitable sharing of costs and benefits, Federal versus State and local interests, and coordination of regulatory requirements and procedures.

The remainder of this article describes the specific effects of key Federal environmental laws on urban growth—particularly affordable housing—and articulates a vision for addressing environmental concerns in a manner that will better facilitate economic development.

Major Environmental Laws and Their Effects on Urban Growth and Affordable Housing

NEPA was signed into law on January 1, 1970, ushering in what has often been referred to as the environmental decade. Following the enactment of NEPA, Congress passed a succession of laws that sought to regulate everything from the discharge of pollutants into waterways to development in endangered species habitats.² These laws were adopted in response to decades of environmental degradation and abuse, including the fire in the Cuyahoga River in Cleveland, Ohio; dead fish blanketing the Great Lakes beaches; the foul air in most major cities caused by uncontrolled emissions from factories and automobiles; and the alarming rate at which plant and animal species were disappearing.

Many of the environmental laws address problems in a specific area or medium, such as air and water, but they are also technology forcing—attacking industrial discharges by mandating adoption of certain technological controls in order to meet Federal standards. For example, CAA requires certain industries to install “maximally achievable control technology,” and CWA calls for the “best available technology.” Other laws limit activities in certain areas, such as coastal zones, wetlands, or endangered species habitats.

Through such laws, the Nation has made tremendous strides in reducing pollution, protecting sensitive natural resources, and raising the awareness of environmental issues among corporations, government agencies, and individuals. Twenty years ago, few developers had even heard of wetlands—they were known as swamps. Now, most developers shy away from wetlands, as well as from land that harbors endangered species. Moreover, the threat of multimillion-dollar liability under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980³ has forced companies to be far more cautious about waste disposal and the purchase of property that may contain hazardous chemicals.

However, pollution reduction is not cheap, either for governments, which spend considerable resources on permits and enforcement, or for the regulated community. The United States spends an estimated \$140 billion a year on pollution abatement. It seems clear that elaborate review processes, land-use restrictions, and mitigation requirements of environmental regulations, and the resulting litigation, can increase the cost and decrease the supply of new housing, although no one has measured the extent of those effects.

The environmental laws with perhaps the greatest impact on development are CWA and ESA, which can restrict or modify development in wetlands and endangered species habitats. Both laws have generated enormous controversy and have come under increasingly strident attacks by landowners and developers. The acts pit private property rights against the public interest in protecting vital natural resources. Property rights activists have targeted both laws for elimination. In March 1995, the U.S. House of Representatives passed a bill that would require the Federal Government to compensate landowners whose property is reduced in value by 10 percent or more due to restrictions on land use under either law; several State legislatures are considering similar proposals. If enacted, such property rights laws would force the Federal Government to curtail enforcement of CWA and ESA severely, because it lacks the financial resources to compensate landowners adequately.

The National Environmental Policy Act of 1969

Passage of NEPA reflected a growing concern throughout the United States that unfettered economic growth was spoiling the water, air, and land on which all life depends. The act directs all Federal agencies to consider the impacts of major Federal actions on the environment.

NEPA Requirements

NEPA established a national environmental policy that advocated environmental awareness and espoused such lofty goals as “to create and maintain conditions under which man and nature can exist in productive harmony,” and to ensure all Americans live in “safe, healthful, productive and aesthetically and culturally pleasing surroundings.” It forced Federal agencies to consider environmental impacts when making decisions about the location of a future dam, highway, airport, or housing project and created a framework for cooperation among the agencies in addressing environmental concerns.

Yet NEPA is procedural rather than substantive; it neither mandates specific results nor imposes a legal requirement that adverse environmental effects be mitigated. While NEPA does not prohibit development in environmentally sensitive areas, it does require that all Federal agencies, in making decisions about Federal or federally permitted projects—including private projects requiring Federal permits—consider the environmental impact of a proposed Federal action. Section 102(2) of NEPA states that “all agencies of the federal government shall . . . ensure that presently unquantified environmental amenities and values be given appropriate consideration in decisionmaking along with economic and technical considerations.”⁴

NEPA established the Council on Environmental Quality (CEQ) as an agency in the Executive Office of the President. CEQ was originally created to coordinate Federal compliance with NEPA, but since Congress did not grant it authority to adopt regulations, CEQ exercised only an advisory role. In 1978, however, it was granted authority to issue regulations that provide an interpretation of NEPA and establish uniform procedures for preparing environmental impact statements and environmental assessments.

The detailed environmental impact statement (EIS) is the heart of NEPA. Under Section 102(2)(C) of NEPA, Federal agencies must prepare an EIS for “major federal actions significantly affecting the quality of the human environment.”

The EIS must include descriptions of the following:

- Environmental impact of the proposed action.
- Adverse environmental effects that cannot be avoided if the proposal is implemented.
- Alternatives to the proposed action.

In practice an EIS, which often takes more than a year to complete, involves extensive environmental analysis, evaluation of all reasonable and practical alternatives to the proposed project, and considerable interagency review. Although an EIS is usually required only for major projects, it can also be triggered by the value of the resources affected or the magnitude of the controversy.

An environmental assessment, rather than an EIS, is sufficient for most NEPA projects. The assessment is usually a short document of 5 to 10 pages that can be completed in a few days or weeks. Like a mini-EIS, an assessment briefly describes the purpose of the project and its likely environmental impact, offers an analysis of alternatives, and indicates whether or not the impact will be significant. An assessment generally results in a finding of no significant impact (FONSI), but in a few cases the impact will be significant enough to warrant the preparation of a full-blown EIS.

The EIS process can either harm or help affordable housing projects. In some cases, the process can delay a project long enough to make it uneconomical. Even worse, after the time and expense of preparing an EIS, a project proposal may be rejected by an agency. In the case of highly controversial projects, the EIS can become the lightning rod for opponents. In some cases, NEPA and its State progeny have been used to stop the development of housing projects when opposition is actually directed toward socioeconomic changes the project might bring about, rather than the expected environmental impact. This tactic is often used to target affordable housing projects. A California guidebook for affordable housing observes that “CEQA [California Environment Quality Act] requirements are used as an effective ‘tool’ by community groups opposed to housing projects,” often leading to denial of approval or reductions in densities (League of California Cities, 1994). An EIS will be discredited if it fails to anticipate and address controversial impacts and reasonable alternatives, or if it seems to have been conceived merely to justify a project.

Conversely, the EIS process can help Federal, State, and local agencies focus on environmental issues and cooperate in the analysis of existing problems. In many cases it has helped project proponents channel criticism into constructive paths and useful studies. It has also improved decisionmaking efficiency by establishing firm schedules for organizing and analyzing data that are required by many different statutes. In particular, the initial “scoping” process allowed under NEPA can be extremely valuable for identifying issues and stakeholders early in the process; unfortunately, it is an underused resource.

NEPA remains the cornerstone of Federal environmental policy. It has spawned similar legislation in the form of State environmental policy acts and local governmental requirements for the evaluation and review of the potential environmental impact of public and private projects. By most accounts, NEPA has been a success. It has forced permit applicants to be more sensitive in designing and siting their projects, required Federal agencies to consider the environmental impact of proposed projects, and prevented many

environmentally damaging projects from proceeding. It has also, however, forced agencies to prepare extensive environmental impact statements and create encyclopedic administrative records for use in the event of a lawsuit charging that an agency did not adequately consider all of the alternatives. In such cases, courts examine the administrative record to determine whether an agency was arbitrary and capricious in permitting a project or was reasonable in its consideration of a project's effect on the environment as shown in the environmental assessment.

NEPA's Impact on Urban Growth and Housing

The expansive scope of environmental impact statements and of exhaustive recordkeeping requirements such as those required by HUD's Environmental Review Board will add to the cost of each unit in a housing project. An EIS can cost from about \$30,000 to more than \$1 million, depending on the type, scale, and location of a project and the degree of opposition to it. For example, an EIS for a hazardous waste incinerator likely will require several years and several million dollars to complete, while an EIS for a housing project normally would require substantially less time and money. Moreover, the possibility of a lengthy, costly EIS process whose outcome is uncertain may persuade developers that an affordable housing project is too risky and too expensive. In a survey of 185 residential projects proposed in the San Francisco region during the late 1980s and early 1990s, the Bay Area Council found that fewer than one-fourth needed an EIS but those projects, since they tended to be large, accounted for more than one-third of the proposed dwelling units. The survey also concluded that it typically took almost 16 months for an EIS to obtain approval, far more time than was needed to obtain rezoning, general plan amendments, or permits for planned unit developments (Bay Area Council, 1993).

The Clean Water Act

The current framework of CWA was established in 1972 as part of congressional amendments to the Federal Water Pollution Control Act (1948). The CWA was amended in 1977 and again in 1987. It was designed to "restore and maintain the chemical, physical, and biological integrity of the nation's waters," which were sorely in need of restoration. Many rivers had become open conduits for uncontrolled municipal and industrial discharges, and few water bodies in metropolitan areas were safe for fishing or swimming.

CWA Requirements

CWA established numerous programs to regulate the discharge of pollutants, including:

- The National Pollution Discharge Elimination System, which regulates end-of-pipe discharges from municipal and industrial sources.
- The Section 404 program, which regulates the discharge of dredge and fill material into U.S. waters, including wetlands.

The Section 404 program has the greatest impact on land use. This section prohibits the discharge of dredge or fill material into "navigable waters," defined as "waters of the U.S.," without a permit from the U.S. Army Corps of Engineers. The definition of discharge is broad and includes filling any U.S. waters for any type of development. Thus, most land preparation and construction activities in wetlands would involve the discharge of fill and would therefore require a permit from the Corps. Because it has served as protector of the Nation's navigable waterways since enactment of the Rivers and Harbors Act of 1899, the Corps was given responsibility for administering the Section 404 permit

program, although it must follow Environmental Protection Agency (EPA) guidelines. Congress sought to link the administrative efficiency of the Corps with the environmental protection mission of EPA. Unfortunately, it made a serious management error by separating administration from oversight. Congress gave EPA the authority to veto a permit issued by the Corps if the agency determines that the project will have an adverse impact on the environment. Since the program started, however, EPA has issued only a dozen vetoes out of an estimated 160,000 permit applications.

Initially, the Corps interpreted CWA to cover only traditionally navigable waters, not wetlands. But as the value of wetlands became more apparent—as areas that provide wildlife habitat, improve water quality, mitigate flooding, and serve as a nursery for fish and shellfish—the Corps' narrow interpretation of the act was challenged. Primarily through a series of lawsuits, the Corps' jurisdiction has expanded considerably to include almost all wetlands, even those isolated from navigable waters.⁵ The Corps defines wetlands as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions” (33 CFR Part 328.3 (b)). Wetlands include marshes, bogs, swamps, and similar areas. There are approximately 105 million acres of wetlands in the lower 48 States, 75 percent of which are privately owned.

Delineating wetlands in the field, based on this complicated definition, has become a legal, political, and ecological quagmire. Wetlands are low-lying areas—often adjacent to lakes, rivers, streams, and oceans—that are composed partly of land and partly of water. Unfortunately, their boundaries are dynamic, fluctuating from season to season and year to year according to precipitation, runoff, and groundwater level. Yet our legal and regulatory system requires us to set fixed, identifiable boundaries. Because they have such varied characteristics, developing a system to delineate wetlands accurately becomes extremely political and controversial. In 1992 Congress, unable to agree on a system that satisfied wetlands ecologists, regulators, and the development community, directed the National Academy of Sciences to study the problem. The Academy has yet to issue its report.

The Corps will generally grant a Section 404 permit on the condition that an applicant, in the following sequence, (1) take all feasible steps to avoid an adverse impact on wetlands, (2) minimize unavoidable damage to wetlands, and (3) compensate for permanent destruction of wetlands by creating new wetlands or restoring degraded ones. Together, these three measures that reduce or compensate for an adverse impact on the environment are referred to as mitigation.

When compensation is required, both the Corps and EPA prefer that the same kind of wetland be created on the same site as the one being filled, preferably as close to the destroyed wetland as possible and connected to the same water source. The agencies surmise that this practice will increase the likelihood that the natural functions and values lost when a wetland is destroyed will be replaced adequately by a new wetland. Consider the following example: A developer applies for a Section 404 permit to construct an office/retail complex on a 15-acre site, half of which is occupied by a freshwater marsh. After having completed steps (1) and (2) above, the developer still must fill 4 acres of wetlands if the project is to be successful. To compensate for the loss of those 4 acres, the developer is required to construct a 4-acre freshwater marsh somewhere on the 15-acre site, although the Corps may require that a larger wetland of 6 or 8 acres be created. If the creation of wetlands onsite is not feasible, the Corps will allow the wetlands to be constructed elsewhere (Salvesen, 1993).

The Section 404 program does not prohibit development in wetlands; it simply requires that a permit be issued by the Corps to allow development. However, not all activities in wetlands require a permit. For instance, Section 404(e) authorizes the Corps to issue general permits on a nationwide, statewide, or regional basis for certain categories of activities that are “similar in nature, [and] will cause only minimal adverse effect to the environment.” General permits are generic licenses that grant blanket authorization for specific types of fill in certain sizes of wetlands. For example, nationwide permit number 26 applies to isolated wetlands of 10 acres or fewer located above the point on a nontidal river or stream at which the average annual flow is 5 cubic feet per second or less.

Despite the controversy surrounding the Section 404 program, the vast majority of permits to develop in wetlands are granted. In fiscal years 1993 and 1994, the Corps issued approximately 65,000 permits (both individual and general), allowed about 29,000 acres to be filled, and required that about 53,000 acres be mitigated. The average processing time for individual permits was 141 days, although large, controversial projects usually took more than 1 year. Many States have also adopted programs to regulate development in wetlands. Some are modeled after the Federal program, while others are more strict. In many cases, State programs have resulted in duplicative permitting requirements, which extend the permit processing time and add to the cost of development. Two States, Michigan and New Jersey, have assumed administration of the Federal program, which should reduce regulatory overlap and the processing time for permits.

Section 404 Impact on Urban Growth and Housing

Section 404 does not significantly limit urban growth but does discourage and delay development in some areas. The burden of showing that no reasonable alternative sites are available, as well as analyzing how to minimize and mitigate impacts “make pursuit of an individual permit for wetlands fill a very chancy matter” (Buchsbaum, 1994). This author suggests that “the ordinary mortal developer and municipality is therefore best advised to restructure the project or change its planning to avoid the need for an individual permit.” Adding to the complications is the fact that not all wetlands are mapped, or mapped in significant detail, with the result that landowners often discover them after purchasing the property. Wetlands mitigation requirements make projects more expensive, although the expected cost of mitigation often is reflected in the price developers pay for the land.

One means of expediting Section 404 is to employ the concept of mitigation banking. Mitigation banks allow landowners and developers to shift requirements for protecting onsite wetlands to offsite areas. Mitigation “bankers” establish wetlands areas that will be restored, if necessary; managed; and preserved through payments from developers. In turn, the developers are allowed to dredge and fill specified wetlands within their sites. Environmentalists have been cautiously optimistic about this concept, although some have opposed banking on the grounds that replacing natural wetlands by building new ones may not be successful and can result in abuses of the system. Federal and State agencies give mitigation banking a fair amount of moral support in determining conditions for permitting.

Endangered Species Act

ESA has been called the most powerful land-use law in the country, because it allows the Federal Government to stop any development that threatens the continued existence of a species that has been listed as endangered. Enacted in 1973 to prevent any animal or plant in the United States from becoming extinct, ESA applies to species large and small, from

the lowly Tooth Cave ground beetle to the majestic Whooping Crane, which dwindled perilously close to extinction before being protected. In 1954 only 21 Whooping Cranes remained in the wild, but after four decades of protection there are nearly 290.

Requirements

The primary purpose of the act is to “provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved.” ESA is administered by the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS). Under Section 4 of the act, FWS is charged with listing threatened or endangered species and developing recovery plans for them. Since 1973, when the law was enacted, more than 800 species have been listed and only 21 have been removed from the list, a process known as *delisting*. Seven of the listed species were declared extinct. The listing process itself has been very controversial. Environmentalists have accused FWS of procrastinating in listing threatened or endangered species. The 1992 settlement of a lawsuit filed against FWS by environmental groups spurred the agency to quicken the pace of listings, and in 1994 more than 120 species were listed.

ESA directs FWS and NMFS not only to protect endangered and threatened species, but also to foster their recovery from the brink of extinction. Although FWS is required to prepare a recovery plan for each listed species, there are many species for which such plans have not been produced or implemented. Unfortunately, few species on the list have recovered sufficiently to be removed from it, but there are a few notable exceptions, such as the Bald Eagle. According to FWS’s 1992 biennial report on the recovery of listed species, only 69 of the 711 species listed (fewer than 10 percent) could be described as “improving”; 28 percent were described as “stable”; and 33 percent as “declining.” Another 27 percent were “unknown,” and 2 percent were believed to be extinct (Mann and Plummer, 1995).

ESA Impact on Urban Growth and Housing

Section 9 of ESA, which prohibits the *taking* of a species listed as endangered, has generated the greatest controversy among landowners and developers. Taking includes, among other things, the act of harming or harassing an endangered species. This definition covers modifications or degradation of habitat, although litigation is now pending on this point. Thus, such construction-related activities as clearing and grading land could be considered taking under ESA. Violators are subject to criminal and civil penalties.

ESA has stopped some projects already underway, with FWS using its power to halt or modify the construction of housing, highways, and dams. Probably the best-known example of the strength of the act involved the construction of the Tellico Dam in Tennessee. In the late 1970s, a minnow-sized fish called the Snail Darter became well known after the U.S. Supreme Court upheld a lower court’s decision to halt construction of the dam by the Tennessee Valley Authority—one of the largest and most powerful developers in the Nation—to protect the fish from the threat of extinction. Led by the delegation from Tennessee, Congress subsequently evaded ESA and enacted special legislation to allow the dam to be completed, despite the threat to the fish. Ironically, Snail Darters were later found in a nearby stream and live on today.

ESA’s impact goes beyond simply prohibiting development in particular areas in order to protect the habitats of certain species. Individuals and organizations planning to develop projects, especially those on large tracts of land, are potentially subject to the discovery and listing of newly threatened or endangered species, which can alter development plans

overnight. This possibility increases the risk factor for development. Although risks may be allayed by a thorough environmental evaluation prior to development, these too have costs. In addition, virtually no mapping of listed species has been accomplished in most metropolitan areas, so that landowners are generally unaware of potential environmental problems on their land.

The effect of ESA on housing costs is determined largely through anecdotal evidence, when developers identify the impact of land reservations and habitat management in relation to overall development costs or when the per-housing-unit impact of ESA can be determined. In one southern California case, the Fieldstone Company estimated that habitat reservations, mitigation, and management would cost about \$14,000 per acre of habitat and would add about \$3,570 to the cost of each house.⁶

In the same way as CWA's Section 404, the restrictive provisions of ESA's Section 9 have generated considerable frustration and uncertainty among developers. Conflicts between species protection and property rights advocates have been particularly acute in high-growth States with a relatively large number of endangered species, such as California, Texas, and Florida. The four States with the greatest number of species listed as endangered are California (80), Florida (68), Hawaii (58), and Texas (51) (Beatley, 1994). In California, Florida, and Texas, the situation has been created primarily by rapid urban growth, while in Hawaii the primary cause is predation by feral pigs, goats, and other introduced animals.

ESA's restrictiveness and inflexibility have led to calls for its revision. In 1982, the act was amended to allow incidental takings of listed species if the takings were pursuant to an approved habitat conservation plan (HCP) that would not "appreciably reduce the likelihood of the survival and recovery of the species in the wild." This provision is discussed below. ESA is under attack in the courts and in Congress, and if current trends continue the act is likely to be weakened substantially. Although several court decisions in the 1980s affirmed FWS's broad definition of a taking,⁷ the U.S. Court of Appeals for the D.C. Circuit, which had upheld the FWS definition, reversed itself in a 1994 decision.⁸ The Court ruled that FWS had overstepped the intent of Congress when it drafted its regulatory definitions. As a result of this ruling, which has been appealed by FWS, modification of habitat alone would not constitute a taking; direct physical harm to the species must also occur.

In addition to claims that ESA allows the Government to take property without just compensation, critics maintain that the act is not fulfilling its purpose and should be revamped. They cite the low number of species delisted as evidence that ESA is ineffective, but supporters point out that species typically are not listed until their numbers have dropped so low that recovery is unlikely. Moreover, the loss of a species is directly related to the loss of habitat, and FWS does not have resources to replace it.

ESA is due for reauthorization, and bills have been introduced in both houses of Congress that are substantially weaker than the current act. A number of States have adopted their own endangered species programs. The California Endangered Species Act is probably the strictest in the Nation. Its provisions restricting development apply not only to threatened or endangered species, but also to candidate species, which are those that may soon qualify as a threatened or endangered species.

Clean Air Act

CAA is probably the longest and most complex Federal environmental statute. First enacted in 1967 as the Air Quality Act, it was amended in 1970, 1977, and 1990. The 1970 amendments, which established the current framework for the act, directed EPA to establish National Ambient Air Quality Standards (NAAQS) for any air pollution that might “reasonably be anticipated to endanger public health or welfare.” These standards were adopted to ensure that public health was protected with “an adequate margin of safety.”

CAA Requirements

The 1970 amendments directed each State to submit a State implementation plan (SIP) outlining the way the air quality areas in the State (generally metropolitan areas) would attain NAAQS within 3 years after EPA approval. States were given 9 months to prepare such plans. Senator Edmund Muskie said that SIPs would require that “urban areas do something about their transportation systems, the movement of used cars, the development of public transportation systems, and the modification and change of housing patterns, employment patterns, and transportation patterns, generally” (Yuhnke, 1994).

In 1971 EPA developed standards for six pollutants—nitrous oxides, sulfur oxides, lead, particulates, carbon monoxide, and ozone. By 1972 many States had submitted SIPs and had met the standards for nitrous and sulfur oxides, lead, and particulates but not for ozone or carbon monoxide, which have proved especially difficult to control. If a State failed to submit an SIP, or if it submitted an inadequate plan, EPA was authorized to prepare a Federal Implementation Plan (FIP) for the State. By 1974 EPA had issued FIPs for the District of Columbia metropolitan area, Boston, and several cities in California.

In 1977, when the first SIP deadline was long past and many metropolitan areas still had not met NAAQS for carbon monoxide and ozone, Congress amended CAA. It was apparent that air quality standards related to automobiles could not be attained with technology-based measures alone, given the rapid growth in vehicle use (Yuhnke, 1994). Therefore, Congress extended the deadline for State adoption of new strategies to reduce vehicle emissions and empowered EPA to withhold highway funds until that had been accomplished. Additional sanctions included a ban on the construction of major new sources of pollution—such as power plants, industrial boilers, and industrial dry cleaners—that would emit 100 tons of carbon monoxide or volatile organic compounds per year.

Under the 1977 amendments to CAA, States were required to adopt and submit revisions to their SIPs by January 1979. However, if States could demonstrate that, despite their best efforts, they could not meet the standards by 1982, they were granted an additional 5 years in which to comply. In addition to extending the SIP deadline, the 1977 amendments also established a number of sanctions that EPA could impose against offending metropolitan areas that did not meet the mandated air quality standards by either 1982 or 1987.

In 1987, despite several extensions, more than 90 areas still failed to meet the ozone standard. Despite reductions in vehicle emissions, many areas simply could not keep pace with the rapid increase in automobile use, which was driven by suburbanization. Frustrated by this lack of compliance, Congress amended the act again in 1990. The new amendments, which were more than 700 pages long, revised the attainment deadlines,

adopted a technology-based program to regulate toxic or hazardous air pollutants, tightened automotive emission controls, and added an elaborate permit program for certain emissions (Randle and Walton, 1994).

The 1990 amendments once again extended the deadlines to meet NAAQS. Los Angeles was given the longest extension (20 years) for complying with the ozone standard. The amendments also maintained the threat of sanctions against areas that failed to meet the standards, although sanctions have rarely been implemented. Since 1980, EPA has imposed highway funding sanctions in only seven states. In five of these, the sanctions were applied to only one urban area. In three States, the sanctions were lifted within 2 months, and in the other two States, they were lifted within 2 years. In the 1980s, sanctions delayed few highway projects and little Federal highway funding (Hawthorne and Meyer, 1992). However, the passage of the Intermodal Surface Transportation Efficiency Act of 1991 ties progression toward attainment of air quality standards to Federal transportation funding, which may tighten requirements significantly.

CAA Impact on Urban Growth and Housing

By authorizing the imposition of sanctions such as cutting off Federal highway funds, and by levying fees on stationary pollution sources such as power plants and industries, CAA has the potential to affect land use. While the act's effect on housing prices has not been measured, it seems to be minimal thus far, because it has not been vigorously implemented.⁹ For the most part, the types of restrictions on land use that might reduce vehicle emissions are not being imposed, and regions that have adopted measures to influence land use have produced few changes in the character of development.

Efforts to improve air quality continue to focus on technological improvements rather than on more efficient land-use patterns.¹⁰ Also, given EPA's reluctance to impose sanctions and Congress' willingness to extend attainment deadlines, it is uncertain whether the act will limit urban growth or the development of affordable housing. However, CAA may indirectly affect local land-use decisionmaking by influencing commuter choices and thus the location of housing and industry, and by enhancing the significance of regional plans (Buchsbau, 1994).

National Flood Insurance Program

For decades, the national response to flood disasters was limited to constructing flood control structures, such as dams or levees, and providing disaster relief to flood victims. This approach did little to reduce flooding losses or discourage development in flood-prone areas. In fact, many Federal flood policies actually encouraged such development.

Faced with mounting property losses and escalating costs for disaster relief, Congress created the National Flood Insurance Program (NFIP) in 1968. The goal of the program is to reduce future losses by regulating land use in flood-prone areas and to provide flood insurance for qualifying property owners. Without the Federal subsidy, few insurers would offer affordable flood insurance.

NFIP Requirements

To receive federally subsidized flood insurance, a community must adopt a floodplain management program that regulates development in flood-prone areas, as identified by flood hazard boundary maps prepared by the Federal Emergency Management Agency (FEMA). In general, the maps delineate areas within the 100-year floodplain and are used

to determine Federal flood insurance rates. The floodplain regulations, which apply to building permits, subdivision proposals, water and sewer systems, and manufactured homes, set standards for building elevation, flood proofing, the anchoring of manufactured homes, and provision of adequate drainage, all of which add to the cost of a home. For example, building codes for many participating communities require that new buildings be elevated above expected flood levels.

In 1973 Congress strengthened NFIP by restricting the use of Federal funds for construction in the 100-year floodplain to communities with a FEMA-approved floodplain management program. Communities without an approved program are ineligible for Federal flood insurance, federally subsidized mortgages and construction loans, and Small Business Administration loans.

NFIP Impacts on Urban Growth and Housing

NFIP does not limit urban growth or prohibit development in flood-prone areas. It merely requires that such areas be governed by a FEMA-approved flood management program in order to receive federally subsidized mortgages, small business loans, and flood insurance. Landowners have alleged that the sanctions imposed on nonparticipating communities reduce their property values and constitute a taking of their properties without compensation. Yet courts have held that NFIP “equitably spreads the costs of flood disasters among the landowners who most benefit from publicly funded disaster relief.”¹¹

By providing subsidized flood insurance, the Federal Government continues to encourage development in flood-prone areas. In many cases homes damaged by floods are repaired with money from NFIP, only to be damaged by the next flood and repaired once again. These repeat offenders account for a disproportionate share of flood damage claims. While estimates vary, it appears that 2 percent of the policies account for more than 25 percent of the money paid out of the NFIP Fund (Association of State Floodplain Managers, 1994).

On September 23, 1994, the National Flood Insurance Reform Act was signed into law. The new law expands the mitigation opportunities funded through NFIP and provides authority for improving lender compliance with the program. The act states that any lender insured by the Federal Government must require that properties in flood hazard areas for which it issues loans are covered by flood insurance. In the past, compliance with this requirement has been lax. When uninsured properties are severely damaged by floods, lenders have often abandoned the mortgages, letting the Federal Government pay for the losses.¹²

The act provides grants to States and communities with approved flood mitigation plans that enable them to implement such cost-effective mitigation measures as elevating, relocating, and demolishing publicly owned structures. It also makes it more difficult for people without flood insurance to receive Federal disaster assistance following a flood, but in many instances they would receive it nonetheless.

Undoubtedly, many of the required floodproofing or mitigation measures add to the cost of construction, although they account for a small percentage of overall costs. But without such measures flood losses would be even higher, requiring larger subsidies from Federal taxpayers. While a number of higher income homes are situated along coastal areas vulnerable to flooding, many low-income communities are located in the floodplains of rivers and streams. Thus properties that are damaged repeatedly by floods often are owned by persons who can least afford to pay for the damages.

Summary of the Impact of Environmental Laws

The impact of environmental laws on urban growth and affordable housing can be summarized as follows:

- The implementation of NEPA has resulted in extensive costs and delays for affected developments that has inevitably raised housing prices in those projects, although the costs are counterbalanced by the protection of sensitive and valuable environmental qualities and resources.
- The Section 404 permitting program under CWA, which has been extended to include circumstances that may not directly affect the resources and concerns targeted by the act, has often resulted in unreasonable and costly delays to community development. The program has also been slow to define and support mitigation measures that allow urban development while achieving CWA's overall objectives.
- CWA's Section 402 permitting program, which requires drainage permits for major development projects, appears to be working fairly well, at least in States such as California, where the program has been delegated to the State.
- CAA, although complex and controversial, is moving slowly but certainly to achieve its objectives, especially through its recent linkage to metropolitan transportation planning and funding. Its implementation in metropolitan areas may influence urban growth patterns by promoting other community development objectives, but also may add to the cost of housing by restricting supplies of land for development.
- ESA, because of its specific and severe geographical impacts, has caused a great deal of controversy and conflict, as well as significant economic cost to development (particularly housing), due in large part to the Federal Government's failure to release funds intended for habitat acquisition.

The impact of these laws raises the following questions:

- Are the costs and effects of these programs necessary to achieve their environmental objectives?
- Do the environmental benefits outweigh the costs?

We would argue that NEPA, for example, meets both conditions and provides a valuable framework and process for addressing environmental concerns. We are concerned, however, that as other Federal acts focus on specific aspects of local development, such as the protection of endangered species, there is a danger that projects may be subject to a variety of requirements for Federal environmental assessments and that developers may need to submit impact statements for the projects as a whole.

Similarly, we would assert that CAA, while addressing extremely difficult problems, meets both criteria, with one attendant concern. There is a temptation to address the environmental effects of transportation by focussing indirectly on land-use patterns rather than on the more direct, effective, but politically unpopular method of pricing automobile commutes and fuel usage realistically.

We believe that Section 404 of CWA and ESA have addressed underlying environmental concerns inefficiently by using project-by-project, geographically focussed Federal permit processes. This approach has resulted in significant conflict, bringing into question such deeply held principles as the nature and incidence of private property rights. At the same time, we appreciate the broader systemic nature of the underlying environmental concerns and the difficulty of dealing with cumulative impacts on the environment.

State and local environmental programs vary in their effect on the affordability of housing and community development. For example, under the California Environmental Quality Act (CEQA), preparation of environmental impact reports (EIRs) has resulted in significant additional costs to housing. Arguably, the environmental benefits may outweigh those costs (a fact yet to be determined), but costs could be reduced by modifying the CEQA process to support reliance on determinations of prior compliance on the basis of previously prepared EIRs, increased use of advance mitigation approaches (as discussed below), and expanded use of tiered and master EIRs for large-scale projects that establish a base of information and analysis at a general plan level to be supplemented as necessary for subsequent specific undertakings.

Available Mechanisms for Reconciling Development and Environmental Protection Objectives

Despite the historic split between the regulatory processes for environmental protection and those for development, numerous mechanisms have been employed nationwide to bridge that gap. Some of the approaches were created precisely for the purpose of reconciliation, while others have been adapted from existing governance institutions. Some methods involve ad hoc efforts to reach consensus on a plan; others are based on existing planning frameworks. All of the techniques, however, bring interested parties together to resolve differences and determine appropriate tradeoffs among competing objectives, and all work toward agreement on a plan and a work program that will accomplish the amended objectives. In addition, although their expressed objectives may not specifically mention affordable housing, these mechanisms may address affordable housing goals as well as broader community objectives.

Federal Multiparty Planning Processes

Federal environmental protection programs provide for several types of ad hoc, multiparty planning processes that can encourage reconciliation of the conflicts between development and environmental protection interests.

Special area management plans. The 1980 amendments to the Coastal Zone Management Act allow the U.S. Corps of Engineers, in conjunction with Federal, State, and local resource agencies, to develop special area management plans (SAMPs) to provide both natural resource protection and reasonable coastal-dependent development in specific areas. Such plans contain comprehensive statements of policies and criteria to guide land use and development and are used by the Corps and EPA to guide the Section 404 permitting process.

In 1976 the State of Washington, in conjunction with local agencies, regional planning agencies, State agencies, and four key Federal agencies (National Oceanic and Atmospheric Administration (NOAA), EPA, the Corps, and FWS), undertook the development of a long-term plan for the dredging and filling of Grays Harbor, the only commercial harbor on the State's Pacific Coast. It possesses significant eelgrass and salt-marsh areas and is visited by more than 500,000 migratory birds annually. Despite heroic efforts, however, a plan was never completed. Although the various interests reached consensus several times, Federal agencies failed to make a commitment to adhere to provisions of the plan in their permitting. In addition, private-sector interests were left out of the planning process, prompting the criticism that agencies were making decisions in advance of the public review process. Grays Harbor stands as a reminder of the importance of involving the complete constituency of interests and providing assurances of the completion of a plan. Other efforts at special area management planning have been more successful, but

all have had to overcome obstacles to Federal agency involvement and commitment to completed plans, in addition to ongoing shortages of planning funds.

Advanced designation of wetlands. Under Section 230.80 of the EPA 404(b)(1) guidelines, EPA and the Corps also may conduct studies to designate wetlands as a suitable or unsuitable site for the disposal of dredged or fill material in advance of permit applications. Advance designation of wetlands does not grant or deny permits in advance and, in general, applicants still must obtain an individual permit. However, because the Corps and EPA have agreed on locations where fills could or should not occur, conflicts between the two agencies should be reduced. In addition, advance identification gives developers more certainty about the permitting process and thus offers opportunities to cut development costs. The process also gives the agencies a better means of avoiding a cumulative adverse environmental impact in sensitive areas.

Habitat conservation plans. Finally, under an amendment to ESA, HCPs can be prepared that, if approved by the Fish and Wildlife Service, can lead to issuance of a Section 10 “incidental take” permit for endangered species. The amendment was expressly modelled after a collaborative planning process—involving developers, planners, regulators, and environmentalists—for a development in the San Bruno Mountains near San Francisco, home of the Mission Blue butterfly, an endangered species. The plan, which called for preserving large portions of the mountains as protected habitat in exchange for allowing some development in the butterfly’s habitat, included provisions for long-term restoration and management of the butterfly’s habitat.

Since 1982, more than 50 HCPs have been prepared or are underway (Beatley, 1994). The HCP approach is widely used in southern California and in parts of Texas, Nevada, and Florida, all rapidly growing States.

HCPs, which are developed jointly by developers, local officials, environmentalists, and other stakeholders, identify habitat areas to be conserved and those in which development can occur. Development may be allowed in small areas of habitat in exchange for conservation of other land and creation of a management program to enhance the propagation and survival of the endangered species. HCPs lend predictability to the planning and development process but are expensive and time consuming to prepare and implement, and they do not always preserve the species at risk.

Problems in application. These Federal planning processes are increasingly recognized by Federal officials and others as useful forums for negotiating understanding when conflicts arise between development and environmental interests. Unfortunately, their use is limited for several reasons.

- Federal agencies have small budgets for facilitating or participating in such planning and frequently opt for participation by low-level staff.¹³
- Because of limitations on Federal staffing and funding, many efforts must be launched and funded in an ad hoc manner by private developers, local governments, and others involved in the issue. Inevitably, major efforts are required to convene the involved parties, manage the planning process, and obtain funding to implement needed studies.
- Federal staff are frequently focussed on meeting narrowly targeted agency objectives rather than seeking a middle ground for all parties. There generally is little sense of interagency management and coordination of Federal interests.

- The processes do not necessarily ensure that approved plans will be fully respected by Federal agencies. Only the habitat conservation planning process leads directly to a permit, and that may be derailed at any time by new listings of threatened or endangered species. SAMPs and advance identification procedures provide strategies, but developers still must seek individual permits in most cases, and effective public management of plan implementation is not necessarily secured.

For these reasons, the federally sanctioned planning processes are partial, but not satisfactory, answers to emerging environmental/development conflicts. However, many of the deficiencies in the processes are being addressed by the agencies involved.

State and Regional Growth and Environmental Management

A number of States and regional agencies provide governance mechanisms that encourage reconciliation of environmental concerns with development, including some that bear specifically on affordable housing.

State growth management statutes. Nine States have adopted growth management acts that require local governments to plan development according to State objectives and planning policies. Affordable housing and environmental preservation occupy prominent positions in these goal statements. For example, 7 of the 25 goals outlined in Florida's State comprehensive plan (adopted in 1985) pertain directly to environmental concerns such as coastal and marine resources and air quality, and one speaks directly to the affordable housing issue: "The public and private sectors shall increase the affordability and availability of housing for low-income and moderate-income persons" (Sec. 1(5)).

Oregon has gone further than most States in promoting implementation of its housing affordability goal. One of the 19 goals states that "plans shall encourage the availability of adequate numbers of housing units at price ranges and rent levels which are commensurate with the financial capabilities of Oregon households and allow for flexibility of housing location, type, and density" (goal 10). Subsequently, Oregon adopted the Metropolitan Housing Rule pertaining to metropolitan Portland. The rule requires local plans to zone adequate land for needed housing types, ensure that land within the region's growth boundary accommodates projected population growth, provide greater certainty to the development process, and reduce housing costs. In specific terms, the rule requires that comprehensive plans of the region's 27 jurisdictions allow at least one-half of all housing units to be multifamily or attached single-family units and permit development at minimum densities that range from 6 to 10 units per acre, depending on the jurisdiction.

A study by the 1000 Friends of Oregon found that the rule has dramatically increased the volume and proportion of multifamily and attached single-family unit development and the proportion of smaller, more affordable single-family lots (1000 Friends of Oregon and the Home Builders Association of Metropolitan Portland, 1991). This improvement in housing affordability occurred while Portland's urban growth boundary prevented most urban development from sprawling into farmland and forest areas.

New Jersey's State Planning Act of 1986 brought growth management to a State already grappling with housing affordability issues as a result of the famous *Mount Laurel* court decisions. In those cases, the New Jersey Supreme Court declared that local governments were required to provide a "fair share" of regional needs for housing, including low- and moderate-cost housing. About the time the State Planning Act became law, the legislature

also passed the Fair Housing Act, establishing the State Council on Affordable Housing. The State Planning Act focussed on promoting compact development to create livable communities and preserve open space and environmental resources, while the Fair Housing Act concentrated on ensuring the production of affordable housing. The combination has succeeded in intensifying the planning function in New Jersey's county and municipal governments, requiring them to provide adequate land supply for housing while ensuring the protection of environmentally sensitive lands.

Maryland's Economic Growth, Resource Protection, and Planning Act of 1992, which requires local governments to reflect seven "visions" in their comprehensive plans, requires that the plans encourage economic development by streamlining the development approval process and using flexible regulations to promote innovative site design. The State planning agency has published a regulatory streamlining guide for local governments that includes provisions supportive of affordable housing.

States administering growth management acts are well equipped to combine general growth management concerns with the Federal requirement to adopt a Comprehensive Housing Affordability Strategy (CHAS). In the State of Washington, for example, the Department of Community Development is responsible for administering both the growth management act and CHAS. The agency's intensive working relationships with local governments in the growth management area, as well as the State requirement for a housing element in local plans, assist it in promoting housing affordability.

One problem with State growth management acts is that they may establish new planning requirements for local governments and State and regional agencies while continuing to require separate project approval procedures for environmental impact reviews. This is the case in Washington State, where the environmental review requirements permit extended intervention in project approvals by a variety of agencies, organizations, and individuals. The continuance of such approval procedures after local plans have met State criteria and implementation has been approved by State agencies produces overlapping and confusing regulatory regimes.

Oregon's benchmarking program. In keeping with Oregon's growth management program, in 1991 the Oregon Progress Board developed a list of 272 benchmarks for measuring progress toward statewide objectives. Originally conceived as a legislative response to a citizen-driven plan prepared by the Governor, the benchmarks appear to be serving as a comprehensive guide to State, local, and private growth management actions in many fields. Many of the benchmarks address environmental quality and affordable housing. For example, an air quality benchmark is listed as *urgent*, calling for an increase in "the percentage of Oregonians living where the air meets government ambient air quality standards" from 50 percent in 1992 to 100 percent by the year 2000. Another urgent benchmark calls for an increase in the percentage of homeowner households below the median income (those spending less than 30 percent of their household income on housing) from 49 percent in 1990 to 73 percent in 1995 and 92 percent in 2010. In 1992 State agencies were directed to give priority to near-term benchmarks in their budget process and to integrate the benchmarks into agency goals and strategies. Thus, the benchmarks offer a framework for agency coordination of growth management policies and actions.¹⁴

California's Natural Community Conservation Plan. The Natural Community Conservation Plan (NCCP) Act of 1991 encourages local governments to plan broad-scale, multispecies conservation in association with watershed and wetlands protection. A major effort launched under this act would conserve 400,000 acres of coastal sage scrub habitat within the rapidly urbanizing coastal terrace of southern California, at an estimated cost of

at least \$2 billion. This program is expected to provide assurances that will give greater predictability to the development process in southern California, with the potential for reducing the impact of environmental protection measures on housing prices.

Critical areas. Many States have adopted legislation that encourages special planning procedures and regulatory activities for environmentally sensitive areas that are of critical concern. Florida's Chapter 380 resource planning and management process, for example, encourages the organization of ad hoc, multi-interest planning groups for critical areas, such as the eastern Everglades. While the Chapter 380 process leaves implementation to established Federal, State, and local agencies, it encourages all parties interested in environmental and growth management to work together to produce cooperative, coordinated plans.

Examples of critical areas that have been addressed by both planning and implementation actions at the State level include the Pinelands in New Jersey and the Chesapeake Bay in Maryland. The Maryland Chesapeake Bay Critical Areas Law, enacted in 1984, created an innovative program to improve water quality, preserve sensitive habitat and wetlands, and limit the extent and nature of development in and around the bay and its tidal tributaries. The Chesapeake Bay Commission adopted criteria that guide local government plans, which must be submitted for commission approval. The New Jersey Pinelands Commission was established by both Federal and State law in 1978 to balance environmental protection with development interests in 1.1 million acres of land in central New Jersey. It has adopted a comprehensive management plan that restricts urban development in much of the area.

The importance of these examples lies in their provision of a planning and regulatory framework for mediating conflicts between environmental and development interests across local jurisdictional boundaries. Similar efforts by the Lake Tahoe Regional Planning Agency (in Nevada and California) and the Hackensack Meadowlands Development Commission (in New Jersey) have paid some attention to the issue of affordable housing. The Lake Tahoe agency, in addition to focussing on protection of the lake, also was concerned with improving and redeveloping urban areas around the lake, including housing for lower income workers. The Hackensack commission, established in 1968, has planning and zoning authority over parts of 14 municipalities in 2 counties. Its plans include management of development and redevelopment of urban areas, as well as preservation and revitalization of extensive wetlands. The commission must abide by the State regulations governing the provision of affordable housing.

Regional initiatives. Many regional agencies and organizations provide mechanisms for reconciling development and environmental protection objectives. California's NCCP process, for example, is being implemented in the three Southern counties of Orange, Riverside, and San Diego through county planning processes for identifying and protecting wildlife habitats. The intention is to identify habitats before development occurs, in order to reduce conflicts and promote more predictable, less costly habitat preservation.

Regional agencies play a key role in improving air quality in many metropolitan areas. Some regional agencies, such as regional councils of government and metropolitan transportation planning agencies (which can be the same organization), are required to program actions that will reduce air pollution. Sometimes, as in the case of the Southern California Association of Governments, these programs can be quite ambitious and far-reaching. Nevertheless, except in a very few instances, regional agencies lack the implementation powers necessary to elicit cooperation from their constituent local governments.

Regional organizations often play a significant part in conserving and improving water quality. In many metropolitan areas, regional authorities have been established to provide water and sewer service, using their management and funding capabilities to protect recharge areas, improve sewage treatment, and take other steps to preserve water quality. In Portland, Oregon, and Minneapolis/St. Paul, such agencies' actions are coordinated in order to promote such growth management objectives as retaining development within growth boundaries.

Perhaps the most important role of regional agencies lies in their consensus-building functions. As convenors of local governments and providers of regionwide databases, regional agencies can exert a powerful influence on environmental and development strategies. Currently, their role in implementing the Intermodal Surface Transportation Efficiency Act appears to lend regional agencies new powers to effect cooperative growth management in metropolitan areas. Whether they will be able to meet this challenge has yet to be seen.

Community Planning and Growth Management

Perhaps the least recognized but most commonly used mechanisms for reconciling environmental and development objectives are the conventional planning and growth management practices of local governments. Ideally, planning and growth management programs involve defining long-term community objectives, determining appropriate policies to achieve those objectives, and adopting specific programs and regulations to implement the policies. During this process, local governments frequently seek ways to mesh environmental goals with community development goals, including those for encouraging affordable housing.

Planning goals and policies. Virtually every community's objectives propose to support development and identify its desirable qualities. At the same time, most community objectives include protection of environmental features, qualities, and resources. Policy statements linked to these objectives indicate the community's desire to promote certain types of development, including affordable housing, and to protect specific kinds of environmental resources. An example from the award-winning "Apoxsee" Sarasota County, Florida, Comprehensive Plan of 1989 follows:

Goal 1. Conserve, maintain and, where deemed necessary in the public interest, restore the barrier island systems of Sarasota County.

Objective 1.1. Construction activities on or off the shore of the Barrier Islands shall not detrimentally impact the barrier island system.

Policy 1.1.2. No hardening of Gulf beaches or passes shall be allowed unless such hardening has been found to be in the public interest. (Sarasota County Board of Commissioners, 1989)

Objective 1.3. "Maintain existing access to Gulf and bay waters for a variety of water-dependent activities and, if necessary, provide for additional purchases where feasible." (Ibid.)

Policy implementation. The Sarasota County plan does not indicate how these sometimes conflicting planning objectives are to be met and reconciled. Rather, as is true in most communities, these objectives are reconciled in the programmatic and regulatory decisions of local officials. For example, Sarasota County's zoning provisions prevent

most additional development on the barrier islands, while other regulations set standards for beach access points and parking to protect fragile beach resources.

It must be noted, however, that programs such as the one in Sarasota County often sacrifice environmental and affordable housing goals in favor of continuing economic development. For instance, in 1975 an urban growth boundary was established around the urbanizing section of the county, partly to conserve open space and environmentally sensitive lands outside the boundary. However, county officials have shifted the boundary outward, since the urbanized area has developed at a much lower density than desired. In addition, county officials have routinely rejected proposed affordable housing projects submitted under special zoning provisions that allow higher densities of development for affordable housing. Other communities have encountered similar problems in pursuing affordable housing objectives; in fact, many districts decide to implement housing programs only after other growth management initiatives have reduced land supplies or increased housing prices. The interplay between environmental protection and affordable housing objectives are complicated by other issues as well, including income and racial differences.

The meshing of development and environmental objectives is also exemplified by provisions requiring set-asides of floodplains, wetlands, stream valleys, hillsides subject to erosion, groundwater recharge areas, and other environmentally sensitive areas. Specific development requirements—such as a 100-foot setback from streams—are often included in the regulations, and other protective actions frequently are negotiated in the subdivision approval process. Although the U.S. Supreme Court’s *Dolan v. Tigard* decision may modify local governments’ proclivity to demand dedications of such properties without compensating the landowner, negotiated conditions are likely to continue as a vital part of local decisionmaking in development matters.¹⁵

Performance-based standards. Another type of local planning initiative is the use of performance standards—including environmental standards—in policies and regulations. The city of Chula Vista, California, for example, sets forth in its general development plan 11 “threshold standards” that every development project must meet; standards for air and water quality are included. The plan itself must satisfy these standards, and individual project reviews must indicate that they will not contribute to reducing air and water quality below the standards. The environmental review process required by State law provides a procedure for determining whether standards are being met.

Another strategy is the use of a point system to encourage development of affordable housing and conservation of natural resources. The point system used in Breckenridge, Colorado, for evaluating proposed projects encourages the provision of employee housing within larger commercial, industrial, and residential developments. The ordinance also provides points if the project contributes to the improvement of air and water quality. Thus Breckenridge’s development approval process offers inducements for developing affordable housing that can be combined with, or traded for, environmental enhancement incentives.

Planned unit developments and clustering. Local regulations for planned unit developments (PUDs) and clustered developments also offer incentives for reconciling environmental and development goals. PUDs are well known as a regulatory technique that allows more flexible treatment of site design and a variety of uses and densities. This flexibility permits a site plan to respond more sensitively to the presence of environmental features and resources and also allows a mix of densities and uses that can include a large amount of affordable housing. Clustered development, which is encouraged in PUDs as

well as in other regulatory provisions, allows increased densities on one part of a site in return for retaining the remainder in a natural or undeveloped state. Savings in infrastructure costs, in addition to the higher densities, lower the costs of housing. PUDs and cluster developments usually require special review procedures, which again address site design, environmental protection, and opportunities for lowering housing costs.

Transferable development rights. To compensate a landowner partially for preserving land from development, transferable development rights (TDRs) are used in Montgomery County, Maryland, other counties in the State, and certain other jurisdictions to preserve open space and farmland. Developers can purchase development rights in designated agricultural areas for transfer to designated receiving areas in urban sections of the county. Because TDRs facilitate higher densities in the receiving areas, they have the potential to lower development costs.

In these ways, the development policies and regulations of many local governments have absorbed and even broadened the Federal and State requirements for environmental protection, providing standards and a procedural framework for encouraging reconciliation between environmental and development objectives.

Summary of Critical Issues

Relationship of Environmental Programs and Mechanisms to HUD Programs

Environmental mandates incorporated in the various environmental protection acts, while intended to improve the quality of our living environment, also affect the location and cost of development and thus the availability of affordable housing, the need for housing subsidies, and other community development concerns. In this respect, HUD clients, whose programs are typically implemented through local governments and agencies, are confronted with the same types of problems that most developers encounter.

Issues To Be Resolved

Constraints on development. Requirements for conserving wetlands, wildlife habitat, and floodplains often mandate the preservation of large areas of land from development. This preservation may or may not follow logical and efficient patterns of urban expansion and may or may not increase costs for transportation and other services. For example, in urbanizing areas, preserved lands can decrease the density of potential development and reduce supplies of land. Thus conservation requirements tend to drive up the cost of the infrastructure needed to support development, adding to housing prices and affecting housing affordability.

But environmental protection laws also provide the means of shaping urban form and promoting compact development. Requirements for preservation of environmentally sensitive lands and for protection of air quality are bolstering efforts in many metropolitan areas to reduce urban sprawl, create more efficient infrastructure systems, and revitalize central cities. Although such efforts may create shortages of developable land and thereby increase housing prices, the balance between environmental protection and efficient urban development is significant. In fact, environmental protection and urban growth management should be corresponding objectives.

Improving the planning/permitting interface. The permits required by environmental laws do not necessarily relate to ongoing local planning processes, causing local governments

and developers to navigate multiple permitting paths and work within a disjointed governance framework. Additionally, landowners and developers must fund special studies to determine their developments' environmental impacts and proceed through often complex processes to obtain necessary permits. The uncertainties of the permitting process also affect local and regional attempts to formulate long-range development strategies.

Environmental laws and rules, and Federal agency implementation, should facilitate, rather than impede, the integration of environmental protection with regional and local planning processes. At the very least, this approach would require greater Federal involvement in planning processes as well as funding support for planning.

Coordination among levels of government. Closely linked to improvement of the planning/permitting interface is the need for better coordination among the various levels of government in imposing requirements on development. Too often, legislation is enacted at one government level without regard to its effect on other levels, and an agency's staff may focus on its mission with scant consideration of other agencies' objectives. The State growth management laws demonstrate some sound approaches to coordination, as do the legislated and ad hoc planning processes mentioned above. These and other approaches should be incorporated into laws and rules affecting urban development.

Compensation for land reservations. The costs of reserving parts of development sites for environmental protection purposes are borne by landowners and developers through exactions imposed by public regulations and procedures that require land to be set aside as a condition of project approval. Because the additional cost to the developer is generally passed along to the homebuyer, the set-aside may raise the price of the housing. Such reservations also usually add value to nearby developments. In either case, housing affordability is affected.

Various proposals for legislation to provide financial relief for property owners affected by environmental laws express a widespread attitude that landowners should not bear the full cost of preserving environmentally sensitive lands. Some attempts are under way to define more equitable approaches to funding land acquisition, most of them based on assurance of shared funding from a variety of sources.

Increased efficiencies in mitigation and conservation. The project-by-project evaluation of environmental and developmental needs is a needlessly inefficient process that is being improved very slowly. The emergence of mitigation banking for wetlands and wildlife habitat is an example of a more collective conceptualization of the environmental protection process that provides more positive support for development as well. Nevertheless, mitigation banking has yet to be fully recognized by Federal and State agencies as a useful mechanism, and its use on a regional or metropolitan scale is still in its infancy. More attention should be given to developing approaches to conservation that can function across jurisdictional and project boundaries.

Assurances: sticking to a plan. Under existing mechanisms for reconciling environmental and development objectives, an agreed-upon plan may not survive the subsequent permitting process. Better means of securing definitive and lasting agreement on plans should be considered.

Better information. Environmentalists and urbanists lack solid information on land conditions and supply, price changes, and market demands. While there is much general environmental information available, in most metropolitan areas there is little data available that is consistent across jurisdictional boundaries and accurately delineates wetlands, wildlife habitat, and other sensitive lands prior to development. Now there is much

information on the quantity and price of land available for development or its regulatory restrictions. Moreover, there is no accounting of any attempt to compile such information at the national level. Thus the Federal Government has little basis for policymaking that might support the competitiveness of our metropolitan growth centers in the global economy.

Approaches to Reconciling Environmental and Urban Growth Objectives

In the spirit of exploring the issues outlined above, we suggest certain avenues of inquiry aimed at reconciling the mandates of urban growth and environmental protection. Both concepts—delegation of program authority and focussed planning—would benefit from a more active HUD role in the stimulation of environmentally sensitive community development. While the agency frequently appears to put housing ahead of urban development, we believe there is significant need for reconciliation of various Federal programs pertaining to urban development. It is particularly important to improve the relationship between environmental concerns and economic development and to encourage urban growth strategies that will increase our Nation's ability to compete internationally.

There is a significant need for a Federal focus on the reconciliation of various Federal programs pertaining to urban development. This focus is particularly needed to improve the relationship between environmental concerns and economic development and encourage the development of urban growth strategies to increase our Nation's ability to compete internationally. The 1995 Bank of America report, *Beyond Sprawl*, calls for reconciliation of the numerous existing programs to provide for a more efficient urban structure.

Historically, there has been concern that the Federal Government not impinge on local land planning prerogatives. However, in the role of facilitator the Government can encourage and provide for the efficient participation of Federal agencies in the planning function. This approach does not encompass a top-down, command-and-control role, but rather a coordinating, supportive function.

Delegation of Program Authority

First, the delegation of authority for environmental programs from Federal to State levels and from State to regional and local levels should be continued and encouraged. In particular, delegation of the Section 404 and ESA programs would improve efficiency in reaching wildlife protection objectives. Clearly, to the extent that the Federal Government can delegate its regulatory role to certain States while retaining a monitoring role, the regulatory process would be simplified and less costly. However, the States may be unwilling to assume responsibility for these programs because of their cost, their controversial nature, or the unwillingness of Federal agencies to relinquish sufficient control. Further, some argue that there is increasing concern for environmental protection and less interest in the economic burden as one moves from the local to the national level. Accordingly, those interested in environmental protection would argue for continued and significant involvement by Federal agencies in protecting the environment.

Focussed Planning

There is need for a standardized, focussed planning process that can be invoked quickly and efficiently, is understood by all, and invites participation. Repeated reinvention of this process is burdensome and expensive. We believe that a collaborative planning process can provide predictability, efficiency, flexibility, and equity. It can address not only economic development and wildlife concerns but also other environmental urban revitalization issues. Accordingly, we suggest that HUD explore the following issues with relevant agencies, including FWS, the Corps, EPA, and the U.S. Department of Transportation:

- Better integration of urban planning and wildlife conservation, using the impetus for wildlife conservation to promote more efficient urban forms.¹⁶ An issue-focussed, collaborative planning process could result in consolidating planning processes for a number of projects or issues. The NCCP program in southern California; the Austin, Texas, Habitat Conservation Plan; and the Sustainable South Florida planning program are good examples of this approach.
- Similarly, address wildlife concerns in the Northwest forests as part of a collaborative planning process that focusses on making the Northwest economy more vital and its housing more affordable.
- Use a collaborative process involving the constituency of interests to refine the Section 404 program so that it focusses on significant wetlands and wildlife resources. For example, a pilot program might target the Houston area, which includes large areas that may be characterized as wetlands, but have limited biological value. The goal is to address wetlands and wildlife concerns efficiently, while also providing predictability and facilitating development.
- Explore ways to facilitate delegation of the Section 404 and endangered species programs to the States.
- Consider the use of a pilot collaborative planning process to address inner-city development problems as they relate to regional development patterns affected by environmental constraints. Examples might include Hollywood, southwest Los Angeles, or southside Chicago.
- Encourage public- and private-sector collaboration efforts to monitor and measure public-sector performance, such as that of FWS, the Corps, and EPA, and their compliance with environmental policy acts. This approach could be applied to the current project-by-project permit system or to a watershed, wetlands, or conservation plan.
- Utilize a collaborative process to help develop a funding framework for addressing wildlife conservation in the context of urbanization and to facilitate its implementation.
- Explore HUD's possible role in developing a strategy to enhance the national and international competitiveness of U.S. regions. Such an effort might include the development of programs to measure a region's relative competitiveness based on the qualities of its urban systems—including the cost of environmental protection.

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Notes

1. For example, see *Beyond Sprawl: New Patterns of Growth to Fit the New California*, prepared and published by the Bank of America, the California Resources Agency, the Greenbelt Alliance, and the Low Income Housing Fund, San Francisco, 1995.
2. For example, Clean Air Act (1970); Federal Water Pollution Control Act, amended extensively and renamed the Clean Water Act (1972); Coastal Zone Management Act (1972); Endangered Species Act (1973); Safe Drinking Water Act (1974); Toxic Substances Control Act (1976); Resource Conservation and Recovery Act (1976); and Comprehensive Environmental Response, Compensation, and Liability Act (1980).
3. CERCLA's funding arm, the Superfund, was created to provide capital for site clean-ups.
4. The National Environmental Policy Act, 42 U.S.C. 4321 4347.
5. See *NRDC v. Calloway*, 392 F. Supp. 685 D.D.C. 1975; *U.S. v. Riverside Bayview Homes, Inc.* 106 S.Ct. 455 (1985); and *Hoffman Homes, Inc. v. Administrator, U.S. EPA*, No. 90-3810 (slip opinion, July 19, 1993).
6. Based on a presentation by John Barone of the Fieldstone Company to the Federal Permitting Working Group, meeting in Washington, D.C., on December 16, 1992.
7. See *Palila v. Hawaii Department of Land and Natural Resources*, 471 F. Supp. 985 (D. [Haw.] 1979) affirmed, 639 F.2d 495 (9th Cir. 1981).
8. See *Babbitt v. Sweet Home Chapter of Communities for a Great Oregon*, 17 F. 3rd 1463 (D.C. Cir. 1994).

9. Personal communication with Robert Dunphy, Director of Transportation Policy, The Urban Land Institute, February 24, 1995.
10. See, for example, Harry Richardson, "Attaining Clean Air Standards: Technological Rather than Land Use Solutions," in *Metropolitan America in Transition: Implications for Land Use and Transportation Planning*. Proceedings of a conference on September 9–10, 1993, sponsored by the Federal Highway Administration. (Washington, D.C.: Federal Highway Administration) 1994.
11. See *Texas Landowners Rights Association v. Harris*, 453 F. Supp. 1032 (D.D.C. 1978), affirmed, 598 F.2d 311 (D.C. Cir. 1979), cert. denied, 44 U.S. 927 (1980).
12. Personal communication with William Lesser, Federal Emergency Management Agency, Washington, D.C., February 21, 1995.
13. In the San Marcos SAMP process, for example, Federal agency staff were overly absorbed in project permit applications and were poorly prepared for early scoping meetings. Only after scoping was completed did the agencies begin to take the project seriously.
14. For more information on the Oregon benchmarks, see *Oregon Benchmarks: Standards for Measuring Statewide Progress and Government Performance*, Report to the 1993 Legislature by the Oregon Progress Board, December 1992.
15. See *Dolan v. City of Tigard* (114 S.Ct. 2481 (1994)).
16. A related element of this discussion could be to focus on a strategy for making the entire southern California region (perhaps including northern Mexico) more internationally competitive.

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The "urban footprint" stretches far beyond city boundaries. Cities influence, and are affected by, broader environmental considerations. The impact of globalization on city growth patterns marks a critical difference between past and present transitions.⁸ Cities are the main beneficiaries of globalization, the progressive integration of the world's economies. People follow jobs, which follow investment and economic activities. Most are increasingly concentrated in and around dynamic urban areas, large and small.