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EFFECT OF WASTE DISCHARGE REGULATIONS ON REAL PROPERTY DEVELOPMENT*

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I. INTRODUCTION

The impact of waste discharge regulations on proposed land development plans pose numerous specific problems. In order to consider these specific problems, however, the effect of waste discharge regulations on land development in general must first be considered. This general discussion will also alert the developer and his attorney to other problems that might be encountered when alternatives to a proposed development are considered. Emphasis is placed on waste discharge regulations affecting water quality as these are the most extensive regulations at this time and offer the best opportunity to provide examples of how federal statutes and regulations affect local real property development.

For purposes of this article, wastes are deemed synonymous with pollutants. Wastes may be gaseous, liquid, solid or even energy in the forms of heat and noise. Regulations controlling the discharge of wastes are deemed necessary in order to protect the public health and welfare, and they are enacted and promulgated by all levels of government. This article is concerned with federal statutes and regulations.

Waste discharge regulations can have an impact on real property development. One form of regulation is the control of land use not only to protect the land, but also to protect air and water quality. In addition to the impact of direct controls on land use in order to accomplish an air or water quality goal, there is the indirect impact on land use decisions by regulations which are aimed at controlling the discharge of wastes into the air or water, or onto the land.

For purposes of discussing the impact of these regulations on real property development, the federal statutes and regulations considered most important at this time are the Federal Water Pollution Control Act Amendments of 1972,1 and the Clean Air Act of 1970.2 Except for a few isolated situations, the Noise Control Act of 1972,3 and the Solid Waste Disposal Act of 1965,4 have almost no significant impact on real estate development at this time.

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1Pub. L. 92-500 33 U.S.C. §§ 1251 et seq. (Supp. IV, 1974). [Throughout this article reference will be made to section numbers in the Federal Water Pollution Control Act Amendments of 1972 (Pub. L. 92-500) and the Clean Air Act of 1970 (Pub. L. 91-604). This is done since most persons dealing with the Acts have adopted this mode of reference. References to U.S.C. sections are also included.]
II. FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972

A. Scope of FWPCA

The Federal Water Pollution Control Act Amendments of 1972 (FWPCA) provide for research and training, construction grants, facilities and areawide planning, a nationwide permit system, the establishment of effluent discharge limitations and receiving water quality standards, and enforcement. These provisions are interrelated, and collectively and severally they affect real property development. The FWPCA should be viewed as a whole—i.e., comprehensively—before particular provisions are analyzed as to their impact on land use decisions. The scope of FWPCA can best be appreciated by starting with the "nation's waters" which are subject to it.

B. "Waters" Subject to FWPCA

It should be noted that "waters" subject to the Act is a much broader concept than the heretofore more limited conception of waters under federal control. The term "navigable waters" is defined in the Act to mean the waters of the United States, including the territorial seas. Congress intended the term to "be given its broadest possible constitutional interpretations unencumbered by agency determinations which may have been made or may be made for administrative purposes." But even for administrative purposes, EPA has defined "navigable waters" to include:

1. All navigable waters of the United States;
2. Tributaries of navigable waters of the United States;
3. Interstate waters;
4. Intrastate lakes, rivers, and streams which are utilized by interstate travelers for recreational or other purposes;
5. Intrastate lakes, rivers, and streams from which fish or shellfish are taken and sold in interstate commerce; and
6. Intrastate lakes, rivers, and streams which are utilized for industrial purposes by industries in interstate commerce.

To date federal courts have upheld this very broad definition of waters subject to the Act. The Act was held to apply in U.S. v. Phelps Dodge Corporation, to underground waters and dry arroyos; in U.S. v. Ashland Oil Transportation Co., to a ditch which was four tributaries removed from...
a stream which was actually navigable; and in Sun Enterprises v. Train, to a small brook which emptied into a reservoir constructed on a stream not actually navigable. As presently construed, it is difficult to argue the Act does not apply for the reason that the receiving waters are not actually navigable. Waters which were heretofore considered solely intrastate and not subject to federal jurisdiction are subject to FWPCA.

C. Point and Nonpoint Sources

In considering the impact of the FWPCA on real property development, it is useful to distinguish between the control of "point sources" and "nonpoint sources" of water pollution. "Point source" is defined in the FWPCA:

The term "point source" means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.

"Nonpoint sources" are not expressly defined in the FWPCA, but guidelines issued by the United States Environmental Protection Agency (EPA) state:

Nonpoint sources, while not defined in the Act, are, by inference, the accumulated pollutants in the stream, diffuse runoff, seepage, and percolation contributing to the degradation of the quality of surface and ground waters. They include the natural sources (seeps, springs, etc.) and millions of small point sources that presently are not covered by effluent permits under the National Pollution Discharge Elimination System.

The regulation and control of both point sources and nonpoint sources are usually necessary to attain desired water quality goals. Point sources are much easier to identify and control, and their regulation and control may have both direct and indirect effects on land use decisions. The regulation and control of nonpoint sources are usually more directly related to land use decisions—i.e., land use controls are foremost among the "tools" that can be utilized to control nonpoint sources of water pollution.

D. Section 208 Areawide Water Quality Management Planning

Section 208 of the FWPCA provides for water quality management planning on an areawide basis instead of piecemeal, ad hoc decisions regarding water quality management. The Senate Committee on Public Works commented:

Section 209 [now Section 208] requires that any regional plan developed pursuant to this Act . . . regulate the location, modification and construction of facilities in the region. . . . The independent functioning of units of government in areas of population concentration without regard to the pollution related requirements of other areas of the same region will not be possible.
Section 208 areawide planning can have profound effects on local land use decisions. It is also interrelated with the section 402 National Pollution Discharge Elimination System for permits\(^2\) and the Title II Construction Grants Program of the FWPCA.\(^3\) These interrelations are developed in more detail following this general review of section 208 areawide planning.

In addition to these interrelated provisions of the Act, the section 208 plan must establish a regulatory program to "regulate the location, modification, and construction of any facilities within such area which may result in any discharge in such area" (emphasis added).\(^4\) EPA has interpreted this provision of the Act as follows:

Section 208(b)(2)(C)(ii) provides that the areawide waste treatment management plan include the establishment of a regulatory program to regulate the location, modification, and construction of any facilities within such area which may result in any discharge in such area. . . . This provides authority for the 208 management agency(s) to regulate location of new pollutant dischargers by determining the location of municipal treatment facilities, by seeking control of other pollutant sources, and by seeking appropriate changes in land use plans and controls from the agencies possessing land use jurisdiction in the 208 area. The term facilities in the above citation includes any controllable source of pollutants, the regulation of which contributes to attaining water quality standard. (Emphasis added.)\(^5\)

Planning areas and areawide planning agencies are designated by the governor and approved by EPA.\(^6\) The planning process is funded by grants from EPA. As of June 30, 1975, 149 areas had been designated and approved, and 149 planning grants awarded.\(^7\) Section 208 areawide planning is well under way throughout the United States, and, according to the United States District Court for the District of Columbia in Natural Resources Defense Council v. Train, all areas of each state must be included in section 208 planning.\(^8\) In other words, there will be border-to-border section 208 areawide level planning.\(^9\)

As early as June 9, 1974, the impact of section 208 on local land use decisions was noted in the Louisville Courier-Journal and Times:

**TWO-O-EIGHT.** Remember Section 208. If you live in the Louisville area, it could well affect your life.

Section 208 is an obscure passage in a law passed by Congress two years ago: The 1972 amendments to the Federal Water Pollution Control Act.

While the law's major thrust is the clean-up and prevention of water pollution, the sections that have to do with planning could affect the growth of America's cities. Section 208 could influence where factories will build, where highways will go and where subdivisions will be situated. In short, it could determine how and where people will live in the next 20 to 50 years . . .

\(^{21}\)Id. Title II, 33 U.S.C. §§ 1281-1292 (Subchapter II).
\(^{23}\)GUIDELINES, supra note 18, at 4-1.
\(^{25}\)208 AREAWIDE MANAGEMENT CURRENT STATES REPORT, July 15, 1975. Published by Areawide Management Branch, Water Management Division of EPA.
\(^{27}\)See EPA regs., 40 C.F.R. § 131.10(6); 40 Fed. Reg. 55343 (1975).
Some professional environmentalists see Section 208 as their best tool yet in channeling growth and stopping pollution.28

By virtue of the FWPCA and section 208 in particular, the stage is set for water quality control agencies at the federal, state, and areawide levels to have substantial influence on what has been traditionally a local decision—land use planning and controls of real property development. The broad scope of section 208 areawide water quality management plans is indicated by the definition set forth in EPA regulations:

The term "water quality management plan" means the plan for managing the water quality, including consideration of the relationship of water quality to land and water resources and uses, on an areawide basis, for each EPA/State approved planning area and for those areas designated pursuant to Section 208(a) (2), (3), or (4) of the Act within a State. Preparation, adoption, and implementation of water quality management plans in accordance with regulations under this part and Part 131 of this Chapter shall constitute compliance with State responsibilities under Sections 208 and 303(e) of the Act and areawide responsibility under Section 208 of the Act. (Emphasis added.)29

E. Point Source Dischargers and the National Pollution Discharge Elimination System (NPDES) Permits

The National Pollution Discharge Elimination System (NPDES) is the mechanism whereby point source dischargers are regulated and controlled. All point source dischargers over a certain size—both government operated and privately operated—must have a discharge permit.30

Under the NPDES permit system no permit may be issued which will conflict with an approved section 208 plan.31 The relationship between the section 208 plan and the NPDES permit system is described by EPA as follows:

The 402 National Pollutant Discharge Elimination System Permit Program is designed to ensure that pollutant dischargers will not exceed prescribed levels. The permit system provides an essential tool for implementation of the 208 plans within the framework of the 303(e) basin plans. No permits may be issued for point sources which are in conflict with approved 208 plans since they automatically become part of the overall 303(e) basin plans. The 208 planning agency should assess current permit requirements and, when needed to achieve the 1983 goals, recommend appropriate conditions for future permit issuance. (Emphasis added.)32

The terms of the permit are governed by many factors including the quality of water to be achieved or maintained in the receiving stream.33 Thus, an industrial plant discharging waste waters into a stream would be required to have an NPDES permit, and the terms of the permit would be

3140 C.F.R. § 125.21(e) (1975).
32GUIDELINES, supra note 18, at 2-4.
conditioned upon the water quality to be achieved or maintained in the receiving stream. The same requirement would apply to a package treatment plant to serve a residential area.

An industry which discharges directly into receiving waters is subject to standard effluent limitations uniformly applicable throughout the United States to dischargers in the same industrial category. As an example, standard effluent limitations have been established for such industrial categories as electroplating, plastics and synthetics, glass manufacturing, rubber manufacturing, and paint formulating—any one of which might consider locating in the same development as an auto parts manufacturer. While some standard effluent limitations have been remanded to EPA for reconsideration, the courts have upheld the authority of EPA to promulgate such limitations.

Since the existing quality of the water and quality of the water to be attained or maintained in the receiving stream are factors to be considered in establishing the terms of the NPDES permit, it is important to ascertain these stream standards. These water quality standards and waste load allocations are mandated by section 303(e) of the FWPCA.

The distinction between water quality standards; i.e., ambient standards, and effluent limitation standards should be noted. Water quality standards pertain to the quality of the water in the receiving stream or lake. The effluent limitation standards are promulgated by the states, or by EPA if a state fails to act, and are part of basin plans adopted pursuant to section 303(e) of the FWPCA. The relationship between section 208 and section 303(e) is outlined briefly as follows:

303(e) basin plans constitute the overall framework within which 208 plans are developed for specific portions of a basin with complex pollution control problems. Basin plans: 1) provide water quality standards and goals; 2) define critical water quality conditions; 3) provide waste load constraints; and 4) may help delineate 208 area boundaries. The results of 208 planning will constitute an integral part of these basin plans. 208 plans must be consistent with basin plans, and should be annually certified as so by the governor. (Emphasis added.)

Most states have established water quality standards for receiving waters. While water quality standards apply to the quality of the water in receiving waters, effluent limitations apply to the composition of effluent discharged at a point source. The FWPCA provides:

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34Pub. L. 92-500 § 301(b) & (e), 33 U.S.C. § 1311(b) & (e) (Supp. IV, 1974).
40American Iron & Steel Institute v. EPA, 526 F.2d 1027, 8 E.R.C. 1321, 1 CCH-PCG 915, 151 (3d Cir. 1975); Grain Processing Corp. v. Train, 8 E.R.C. 1561 (S.D. Iowa 1976); E.I. DuPont de Nemours & Co. v. Train, 528 F.2d 1136, 8 E.R.C. 1718, 1 CCH-PCG ¶ 15,171 (4th Cir. 1976); American Meat Institute v. EPA, 526 F.2d 442, 8 E.R.C. 1369, 1 CCH-PCG ¶ 15,152 (7th Cir. 1975); Towner's Council of America, Inc. v. Train, 8 E.R.C. 1881, 1 CCH-PCG ¶ 15,172 (4th Cir. 1976); Hooker Chemicals v. Train, 8 E.R.C. 1961 (2d Cir. 1976).
42GUIDELINES, supra note 18, at 2-1.
The term "effluent limitation" means any restriction established by a State or the Administrator on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into navigable waters, the waters of the contiguous zone, or the ocean, including schedules of compliance.\footnote{Pub. L. 92-500 § 502(11), 33 U.S.C. § 1362(11) (Supp. IV, 1974).}

The next step is for receiving waters to be classified as either "effluent limited segments" or as "water quality limited segments." An "effluent limited segment" is that part or segment of the receiving waters in which the established water quality standards can be met when all dischargers comply with the standard effluent limitations applicable to each point source discharger.\footnote{40 C.F.R. § 130.2(O)(2) (1975): "(2) Effluent limitation segment: Any segment where it is known that water quality is meeting and will continue to meet applicable water quality standards or where there is adequate demonstration that water quality will meet applicable water quality standards after the application of the effluent limitations required by Sections 301(b)(1)(B) and 301(b)(2)(A) of the Act."}

The "water quality limited segment" is that part or segment of the receiving waters that will not meet water quality standards after application of the standard effluent limitations for each point source discharger.\footnote{40 C.F.R. § 130.2(O)(1) (1975): "(1) Water quality segment: Any segment where it is known that water quality does not meet applicable water quality standards and/or is not expected to meet applicable water quality standards even after the application of the effluent limitations required by Sections 301(b)(1)(B) and 301(b)(2)(A) of the Act."}

As a result of this classification system, a point source discharger on a "water quality limited segment" must comply with more stringent standards than the same type discharger on an "effluent limited segment."

It becomes apparent that the establishing of water quality standards for receiving waters and the determination of the receiving waters as an "effluent limited segment" or "water quality limited segment" can be a major factor in determining the type of land use that can be made along or near the receiving waters. As an example, suppose an auto parts plant desires to locate in an industrial park and discharge waste waters into an adjoining stream. It can meet the required level of treatment of its waste water discharge to satisfy the industry-wide effluent limitation. This segment of the stream, however, is a "water quality limited segment" which will require the auto parts plant to treat its waste waters more extensively than required by the industry-wide effluent limitation. If the auto parts plant cannot attain the higher level of treatment, or if doing so is prohibitively expensive, this plant cannot locate on this stream even though the land is zoned for such industrial use.

F. Discharging into Publicly Owned Treatment Works

By discharging into a publicly owned treatment works, the necessity for an NPDES permit for the auto parts manufacturer or the residential subdivision is eliminated. Since the publicly owned treatment works is a point source discharger and must have an NPDES permit, both the industrial and residential discharges into publicly owned treatment works present possible problems which must be considered. In the case of publicly owned treatment works, the NPDES permit will provide for the
type and amount of sewage which the treatment works can accept for treatment.\textsuperscript{46} It is readily seen that this can affect land use decisions as to the type and amount of growth in the area served by such treatment works. If a treatment works violates terms of its permit, the state or EPA administrator may restrict or prohibit new discharges into the treatment works.\textsuperscript{47}

In many states administrative agencies have from time to time issued bans on additional residential and/or industrial hook-ups to sewer systems when the treatment works becomes overloaded or is not properly operated resulting in the discharge of insufficiently treated sewage. This has been done by administrative order of the agency after a required notice and hearing. Such bans would become a part of an NPDES permit. These bans or moratoria on new hook-ups have been upheld by the courts in several jurisdictions including Illinois, Maryland and Pennsylvania.\textsuperscript{48} Such moratoria affect land use decisions since development is effectively halted unless a developer can supply its own treatment.

The industrial discharger into a publicly owned treatment works must also meet pretreatment standards for its discharge.\textsuperscript{49} EPA has promulgated regulations which set forth pretreatment standards based on compatibility with the design and capability of the treatment works.\textsuperscript{50} Pretreatment standards may be more strict under state or local law if such are necessary to meet the effluent limitations imposed on the publicly owned treatment works.\textsuperscript{51} Thus, the capacity and capabilities of the treatment works to treat an industry's wastes will determine the type and level of pretreatment required of such industry. The terms of this pretreatment become a part of the NPDES permit of the publicly owned treatment works.\textsuperscript{52}

G. Separate Storm Sewers as Point Source Dischargers

Since the proposed development is in an urbanized area, the developer of both the industrial park and residential subdivision must also be aware of recent developments which will require an NPDES permit for separate storm sewers which discharge into the streams.\textsuperscript{53} The term "separate storm sewer" is defined as "a conveyance or system of conveyances . . . located in an urbanized area and primarily operated for the purpose of collecting and conveying storm water runoff."\textsuperscript{54} As presently interpreted, this applies to both publicly owned and privately owned...
separate storm sewers. This extension of the NPDES permit program was brought about by a June 1975 decision of the Federal District Court of the District of Columbia. As of May 1976, EPA had not issued detailed regulations to implement this part of the NPDES permit program.

H. Discharge into Publicly Owned Treatment Works and the Construction Grants Program

The availability of publicly owned and operated sewage treatment works is another factor which a developer must consider. As noted previously, if adequate sewage treatment service is not available, development will be curtailed or the developer will have to furnish its own treatment facilities. In most instances, the enlargement of existing plants or the construction of new plants is dependent upon federal funding. Title II of the FWPCA provides for the construction grants program to be administered by EPA.

In establishing standards for making such grants, EPA regulations and guidelines directly influence local decisions as to size and type of a publicly owned treatment works. EPA has promulgated regulations and guidelines which require, among other things, (i) alternatives to the conventional end-of-the-pipe treatment, (ii) projections as to future needs, and (iii) the identification of development controls—e.g., zoning—necessary to assure compatibility of the treatment works with future needs for the planning period, usually twenty years.

A number of criteria are applied in determining the priority for federal grants for construction of publicly owned treatment works. The most important is the severity of the water pollution problem. The indirect impact of this criteria is evident. If the receiving waters are severely polluted—i.e., the stream is in violation of, or not in compliance with, water quality standards established for such streams by the state—the applicant for a grant to construct a treatment works will most likely have a higher priority for such grant as compared with grant applicants not so situated. Other criteria which determine ranking on the project priority list are capacity and effectiveness of the existing treatment works, and size of area and population to be served. The goal is to provide funds first for construction of treatment works where it will do the most good for the most people.

If industrial dischargers such as auto parts manufacturers are to be served by the publicly owned treatment works built with federal funding,

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5740 C.F.R. Part 35, Subpart E, (Grants for Construction of Treatment Works) (1975). See EPA GUIDELINES FOR FACILITIES PLANNING (January 1974) which provide, among other things, as follows:

"§ 3.2.B Land Use . . . Projected land use patterns and development densities based upon land use plans and zoning codes should be used as an indicator of the capacity and location of facilities. Development controls consistent with projected land use will be necessary to assure the continuing compatibility of the facilities with community needs over the planning period."

5840 C.F.R. § 35.915(c)(1) (Project Priority List) (1975).
such industrial dischargers must take into consideration two other factors in addition to pretreatment standards mentioned earlier. These are "user charges" and "industrial cost recovery charges." "User charges" are required by the Act, and are defined by regulation so that each discharger or class of dischargers pays its proportionate share of the costs of operation and maintenance of any waste treatment services provided by the treatment works. Not only is quantity of discharge a factor, but the composition and timing (flow rate) are factors in determining the user charge. Before a discharger decides to locate in the proposed industrial park, the amount of this charge should be considered.

The "industrial cost recovery charge" is that charge to an industry to recover the costs of construction of the treatment works which costs are attributed to providing treatment for such industry's wastes. In the siting of a new plant, an industry should take into consideration this cost if it intends to discharge into a publicly owned treatment works which is to be built or expanded with federal funds.

To date construction grants have been made pursuant to section 201 of the FWPCA and regulations promulgated thereunder. When a section 208 plan is adopted and approved, however, construction grants for publicly owned treatment works may be awarded only for those plants which comply with the section 208 plan. In describing the section 208 areawide plan, EPA states:

Areawide planning sets forth a comprehensive management program for collection and treatment of wastes and control of pollution from all point and nonpoint sources. Control measures for abating these sources utilize a combination of traditional structural measures together with land use or land management practices and regulatory programs.

The portion of the 208 plan devoted to future construction of publicly-owned treatment works should select and describe planning and service areas and treatment systems, and provide supporting analysis for the selection. The 208 planning requirements, therefore, overlap with the 201 planning requirements. (Emphasis added.)

As a result of this interrelation of section 208 areawide planning and section 201 construction grants, the task of the developer of ascertaining the priority and timetable for construction or expansion of a publicly owned treatment works is further complicated.

I. Nonpoint Source Regulation and Real Property Development

Mark Pisano, Director of EPA's Water Planning Division, stated in 1975, in an address to the Water Pollution Control Federation:

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60See text at note 49 supra.
66GUIDELINES, supra note 18, at 2-2.
The magnitude of the nonpoint source problem is possibly equal to or greater than the total problem caused by all point sources. EPA's responsibility in the nonpoint source management effort will be to provide guidance to the States for initiating planning and implementation of nonpoint source management in order that the 1983 water quality goals of the Act may be reached. The implementation of these management programs will be a part of the areawide planning process in designated 208 areas, as well as part of the State water quality management responsibilities in non-designated areas.67

The preamble to recent regulations promulgated by EPA states that "planning for the management of nonpoint sources of pollution will be the most difficult and complex water quality control problem confronting the state and areawide . . . agencies. . . ."68

Irrespective of the magnitude and complexity of nonpoint source problems, section 201(c) of the FWPCA provides for control and regulation of nonpoint sources:

To the extent practicable, waste treatment management shall be on an areawide basis and provide control or treatment of all point and nonpoint sources of pollution, including in place or accumulated pollution sources.69

Section 208(b)(2) is more specific in that it requires that the areawide plan shall include:

(F) a process to (i) identify, if appropriate, agriculturally and silviculturally related nonpoint sources of pollution, including runoff from manure disposal areas, and from land used for livestock and crop production, and (ii) set forth procedures and methods (including land use requirements) to control to the extent feasible such sources;

(G) a process to (i) identify, if appropriate, mine-related sources of pollution including new, current, and abandoned surface and underground mine runoff, and (ii) set forth procedures and methods (including land use requirements) to control to the extent feasible such sources;

(H) a process to (i) identify construction activity related sources of pollution, and (ii) set forth procedures and methods (including land use requirements) to control to the extent feasible such sources;

(I) a process to (i) identify, if appropriate, salt water intrusion into rivers, lakes, and estuaries resulting from reduction of fresh water flow from any cause, including irrigation, obstruction, ground water extraction, and diversion, and (ii) set forth procedures and methods to control such intrusion to the extent feasible where such procedures and methods are otherwise a part of the waste treatment management plan. . . . (Emphasis added.)70

In Guidelines published by EPA, detailed considerations for land use to attain water quality are discussed:

This chapter discusses how land use plans, projections, and controls should be assessed, revised if necessary, and utilized to help attain water quality objectives. A detailed consideration of land use is important for two reasons: (1) land use plans can serve as bases from which point and nonpoint source controls can be developed and evaluated; and (2) possible changes in future development patterns can be explored as a means of reducing in-
vestment in point and nonpoint source control. Because of the strong relationships with point and nonpoint source subplans, the land use analyses described in this chapter should be done in close conjunction with these subplans.\textsuperscript{71}

In developing areas adjacent to urban areas such as in the problem, pollution from construction activities and the increased run-off due to the development appear to be the major nonpoint source problems. EPA has mandated that section 208 water quality management plans include "best management practices" (BMP's) to be implemented to combat nonprofit source problems.\textsuperscript{72} BMP's have been defined in guidelines published by EPA:

For each nonpoint source problem category, "Best Management Practices" (BMP) should be defined and implemented through appropriate regulation. The term "Best Management Practice" refers to a practice or combination of practices that is determined by a state after examination of alternative practices to be practicable and most effective in preventing or reducing the amount of pollution generated by a nonpoint source to a level compatible with water quality goals. The "best" practice for reducing nonpoint sources in a given area will depend on the particular physical characteristics of the watershed (soil, slope, rainfall, etc.) as well as the nature of man's activities that cause nonpoint source pollution generation (prevailing forms of construction activity, mining, agriculture, etc.).\textsuperscript{73}

Construction activity in the vicinity of streams and lakes receiving waters results in pollution from erosion of bare soils, careless spillage of materials, increased storm water runoff, excessive use of fertilizers, and similar construction activities. In referring to construction related nonpoint pollution, EPA guidelines state:

Pollutants resulting from construction activity consist primarily of sediment, both mineral and organic, which transport other pollutants such as chemicals used to fertilize and condition soils, pesticides, petroleum products, and pathogenic biological organisms.

Effective control of nonpoint sources of pollution should be done on a site-by-site basis, and initiated during the preliminary stages of a project. These measures should be considered during site planning and design. Adequate control must include proper maintenance of the measures installed. Nonpoint source control programs might include:

1. Installing structural and vegetative measures which will protect environmentally sensitive areas of the site;
2. Controlling the velocity and volume of runoff water to prevent erosion and transport of sediments and other pollutants;
3. Diverting runoff and trapping sediment;
4. Requiring that nonpoint source control be considered in construction contracts as well as procedures for the maintenance and inspection of measures installed;
5. Using stage grading, seeding, and sodding procedures.\textsuperscript{74}

As a result of this approach to construction-related nonpoint sources of pollution, methods of real property development may be changed with

\textsuperscript{71}GUIDELINES, supra note 18, at 4-1.
\textsuperscript{73}GUIDELINES, supra note 18, at 6-2.
\textsuperscript{74}Id. at 6-10.
increased costs being incurred by developers. In addition, setbacks from receiving waters may be enforced as well as requiring vegetative covers for land areas adjacent to streams and lakes. Such requirements could become part of building and development permits.

Pursuant to section 304(e) of the FWPCA,\(^7\) EPA has issued information including guidelines and methods to control nonpoint sources of pollution.\(^7\) A recent EPA compilation of federal, state and local laws controlling nonpoint sources identifies numerous state and local legislative enactments which impact real property development in order to control water pollution.\(^7\) Such enactments include anti-sedimentation laws, water pollution laws, building codes, highway construction codes, dredge and fill regulations, and similar laws affecting real property development.

It is apparent that nonpoint source controls are not as well formulated as control of point source discharges. It is likewise clear that control of nonpoint sources is more site specific and, therefore, less uniform. But, the FWPCA requires identification and control of nonpoint sources, and section 208 areawide planning is the most likely vehicle to accomplish this. Developers must, therefore, be aware of state and local statutes and regulations, and BMP's which are made part of the section 208 areawide plan.

III. CLEAN AIR ACT OF 1970

A. Introduction

The implementation of the Clean Air Act of 1970 (CAA)\(^7\) can have important impacts on land use decisions. Two provisions of the CAA are the most relevant to land use decisions. Both are set forth in section 110 which requires that a state implementation plan (SIP) provide implementation, maintenance and enforcement of primary and secondary ambient air quality standards in each air quality control region within the state.\(^7\) The first provision is section 110 (a)(2)(B) which requires that such SIP's include:

... emission limitations, schedules, and timetables for compliance with such limitations, and such other measures as may be necessary to insure attainment and maintenance of such primary or secondary standard, including, but not limited to land use and transportation controls. (Emphasis added.)\(^8\)

The second provision is section 110 (a)(2)(D) which requires that the SIP include:

... a procedure meeting the requirements of paragraph (4) [authority to

\(^{7a}\)Pub. L. 92-500 § 304(e), 33 U.S.C. § 1314(e) (Supp. IV, 1974).


\(^{7e}\)Id. § 110(a)(1), 42 U.S.C. § 1857 c-5(a)(1).

prevent non-complying construction], for review (prior to construction or modification) of the location of new sources to which a standard of performance will apply.\textsuperscript{81}

As is readily apparent, the land use implications of the CAA are interrelated with the establishment of primary and secondary ambient air quality standards and the designation of air quality control regions within the state. The Senate Report on the CAA noted:

Land use policies must be developed to prevent location of facilities which are not compatible with implementation of national standards.\textsuperscript{82}

The CAA is not, however, a land use planning law, but it does require that air quality considerations be a part of land use planning in order to attain required levels of air quality. In 1975, Cynthia J. Bolbach wrote:

The nearly five years of experience in trying to meet the national air standards since passage of the 1970 amendments have demonstrated strongly, however, that air quality management is all but impossible without an accompanying system of effective and coherent land use controls. Imposing severe emission limitations on existing factories or restricting current automobile traffic does little good if we permit the continuation of the haphazard growth and urban sprawl patterns that engendered such pollution in the first place.

. . . Executive and judicial interpretations of the Act have made clear that the Act permits the imposition of land use controls at both a regulatory level—telling someone whether he may or may not use his land for a particular purpose—and at a planning level—forcing the development of comprehensive plans to govern an area's growth and development.

The Clean Air Act, however, is most emphatically not a land use statute. It is not a substitute for either federal land use legislation or for state and local land use plans. The Clean Air Act's primary—indeed, only—aim is improved air quality. Land use policy decisions made under the authority of the Clean Air Act which have as their primary purpose something other than improved air quality, such as encouraging economic development of depressed areas, may be justifiable from a public policy standpoint but are of dubious legality under this Act.\textsuperscript{83}

In addition to primary and secondary ambient air standards, a real property developer must be aware of other provisions of the CAA and regulations promulgated under it. One such provision is that requiring national emission standards for new stationary sources if the proposed development is to include a source for which emission standards have been established.\textsuperscript{84} At this time, new source standards apply only to potentially large air polluters such as fossil-fueled electric generating plants, incinerators, phosphate fertilizer plants, copper smelters and petroleum refineries.\textsuperscript{85}

A second provision is the regulation of complex or indirect sources which are defined by regulation as follows:

\textsuperscript{81}Id. § 110(a)(2)(D), 42 U.S.C. § 1857 c-5(a)(2)(D).
\textsuperscript{83}Bolbach, Cynthia, J., Land Use Controls Under the Clean Air Act, 6 Seton Hall L. Rev. 413 (1975).
\textsuperscript{85}See, 40 C.F.R. Part 60, Subparts D-AA (1975) for a list of new sources subject to such standards.
(i) The term "indirect source" means a facility, building, structure, or installation which attracts or may attract mobile source activity that results in emissions of a pollutant for which there is a national standard. Such indirect sources include, but are not limited to:

(a) Highways and roads.
(b) Parking facilities.
(c) Retail, commercial and industrial facilities.
(d) Recreation, amusement, sports and entertainment facilities.
(e) Airports.
(f) Office and Government buildings.
(g) Apartment and condominium buildings.
(h) Education facilities.

The control of parking facilities by EPA is, however, very much in doubt at this time due to congressional action and opposition. In late 1975, EPA stated that due to "active congressional consideration" of indirect source amendments, reinstatement of the parking related aspects of federal regulations is not desirable.

A third provision to be considered is the policy of non-significant deterioration of air quality—i.e., where air quality is better than national ambient standards, it cannot be allowed to deteriorate toward those standards. In 1972, the United States District Court for the District of Columbia in Sierra Club v. Ruckelshaus held that the CAA established a policy of nonsignificant deterioration of air quality. This decision was affirmed in 1973 by an equally divided Supreme Court in Fri v. Sierra Club. In response to this case, EPA has promulgated regulations which as of June 1976, provide limits only on particulate and sulfur dioxide emissions. This is further limited in application to new sources that could be considered major air polluters such as fossil-fueled electric generating plants, steel mills, smelters, etc.

With the foregoing general discussion of the CAA in mind, attention can be focused on its impact on the proposed real property development.

B. Effect of CAA on the Proposed Real Property Development

1. GENERAL

Due to the nature of the proposed development, it does not appear that the indirect or complex source regulations—even if promulgated and enforced—will have much effect on the developer's plans, since there does not appear to be a large concentration of automobile traffic. If this were a large shopping center, state regulations promulgated under pressure of the CAA might apply.

94 C.F.R. 52.21 (1975).
94 C.F.R. 52.21(d) (1975).
9See Mastriana, F. Ronald, Environmental Regulation Checklist for Shopping Center Development, IX NAT. RES. LAW. 81 (1976) (ABA Section on Natural Resources Law).
It likewise appears that new source performance standards would not apply to the proposed development. The type of industry which would be attracted to this size industrial park or which would support auto manufacturing is not included in the categories of industries subject to new source standards.\footnote{It appears that new source performance standards would not apply to the proposed development. The type of industry which would be attracted to this size industrial park or which would support auto manufacturing is not included in the categories of industries subject to new source standards.}

The size and type of the proposed development also makes it unlikely that significant deterioration (non-degradation) regulations would have much impact on the proposed development. There is the possibility, however, if the development is in a Class I area (practically any deterioration of air quality is considered significant) or a Class II area (well-controlled growth permitted),\footnote{The size and type of the proposed development also makes it unlikely that significant deterioration (non-degradation) regulations would have much impact on the proposed development.} significant deterioration regulations would have some effect on the proposed development.

2. STATE IMPLEMENTATION PLAN

The constraints upon the proposed development depend almost entirely on the specific provisions of the state implementation plan which is prepared by the state or, if the state fails to act, by U.S. EPA. As noted earlier, the state implementation plan must include measures necessary to insure attainment and maintenance of primary and secondary air quality standards.\footnote{Thus, without considering other provisions of the CAA, a state implementation plan enforced by the state under its police powers may restrict the development of an industrial park or residential subdivision in order to attain and maintain the required primary and secondary air quality standards.}

To the extent that some states have included complex (indirect) source regulations, new source performance standards or significant deterioration regulations in their state implementation plans, these constraints would have to be considered by the developer.

3. AIR QUALITY MAINTENANCE AREAS

If the proposed development is situated in an area designated as an air quality maintenance area,\footnote{If the proposed development is situated in an area designated as an air quality maintenance area, the provision of plans should be considered.} the provision of plans should be considered. While this is a planning tool, its implementation can affect development. EPA's proposal for air quality maintenance area regulations stated:

"The principal objective of designation of AQMA's [air quality maintenance areas] and subsequent analysis and development of plans to maintain ambient air quality standards is to provide a mechanism for management of general overall urban growth as related to air quality, with due consideration of other aspects of community growth."\footnote{The principal objective of designation of AQMA's is to provide a mechanism for management of general overall urban growth as related to air quality, with due consideration of other aspects of community growth.}

Since the proposed development is in a standard metropolitan statistical area (SMSA), there is a likelihood that an air quality maintenance area plan may be in effect or under consideration. As noted by the Office of Management and Budget, SMSA's have historically exhibited higher growth rates of population and higher concentrations of industry both of
which result in air quality problems. It is for these reasons that SMSA's are frequently designated as air quality maintenance areas. Such air quality maintenance area plans become a part of the state implementation plan.

4. CONCLUSIONS CONCERNING EFFECT OF CAA

Due to (i) the uncertainty of pending amendments to the CAA, (ii) uncertainty of implementation of such regulations as those concerning parking and indirect sources, and (iii) the frequency with which the regulations are amended, it is difficult to assess the effects of the CAA on real property development. It is clear, however, that the CAA does, and will continue to have, effect on real property development in areas which have air quality problems.

IV. CONCLUSION

Both the federal water and air pollution control regulations are in a state of flux. In addition, environmental agencies—state, areawide and local—vary substantially in their readiness and abilities to implement the requirements of the federal laws. For these reasons, attorneys for real property developers must keep abreast of developments in the law and should keep in contact with state, areawide and local environmental agencies.

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101 40 C.F.R. §§ 51.12(e), 51.40 et seq. (1975).