# Hofstra Property Law Journal

Volume 2 | Issue 2

Article 7

3-1-1999

# Groundwater and Open Space Protection: The New Land Bank and Land Acquisition Programs

Steven C. November

Follow this and additional works at: https://scholarlycommons.law.hofstra.edu/hplj

Part of the Property Law and Real Estate Commons

# **Recommended Citation**

November, Steven C. (1999) "Groundwater and Open Space Protection: The New Land Bank and Land Acquisition Programs," *Hofstra Property Law Journal*: Vol. 2: Iss. 2, Article 7. Available at: https://scholarlycommons.law.hofstra.edu/hplj/vol2/iss2/7

This Note is brought to you for free and open access by Scholarship @ Hofstra Law. It has been accepted for inclusion in Hofstra Property Law Journal by an authorized editor of Scholarship @ Hofstra Law. For more information, please contact lawscholarlycommons@hofstra.edu.

# NOTES

# GROUNDWATER AND OPEN SPACE PROTECTION: THE NEW LAND BANK AND LAND ACQUISITION PROGRAMS

#### INTRODUCTION

Faced with increasing development pressures, dwindling amounts of open space, and contaminated ground water,<sup>1</sup> a number of state and local governments have moved to protect their precious resources through the enactment of land acquisition and land banking programs.<sup>2</sup> On the islands of Nantucket and Martha's Vineyard in Massachusetts and in Little Compton, Rhode Island, successful land banks have been established, financed by real estate transfer taxes.<sup>3</sup> Long Island's Suffolk County has had a successful open space preservation program since 1986,<sup>4</sup> which was supplemented in 1987 with an additional water protection effort financed by a quarter-percent sales tax levied on residents of the County's Southwest Sewer

4. Suffolk County Open Space Preservation Program, County Res. 762 of 1986. See infra p. 381.

<sup>1.</sup> Groundwater is subsurface water that flows in highly permeable layers of rock or sand called aquifers. Note, State and Federal Land Use Regulation: An Application to Groundwater and Nonpoint Source Pollution Control, 95 YALE L.J. 1433, 1434 (1986) [here-inafter Note, State and Federal].

<sup>2.</sup> A public land bank is a government-operated entity, usually organized through the cooperation of state and local government, which collects revenue from taxes on real estate transactions or retail sales and utilizes this money to purchase land. The purpose is to permanently preserve areas which overlie important groundwater reserves, areas of exceptional scenic beauty, and regions with unique or environmentally sensitive plant and animal life. See infra pp. 377-82.

<sup>3.</sup> See infra pp. 378-80.

District.<sup>5</sup> Additionally, an increasing number of states, such as New York, are financing land acquisition programs of their own.<sup>6</sup> Several states are also responding to Congress' broad, but generally complex and ineffective, water pollution and hazardous waste control regulations by implementing their own groundwater management strategies.<sup>7</sup> The latter often contain effluent and ambient standards that are more stringent than those set forth by the federal government.<sup>8</sup>

Land banking and state land acquisition programs are effective complements to the new state-wide groundwater management programs. Land acquisition efforts are not burdened by the constitutional limitations placed on restrictive zoning and public health regulations,<sup>9</sup> which are often ineffective in protecting critical groundwater recharge zones and in preserving the wild character of an environmentally unique habitat.<sup>10</sup> Publicly-financed land banks

7. See N.Y. DEPT. OF ENVTL. CONSERV., NEW YORK STATE WATER RESOURCES MAN-AGEMENT STRATEGY (May 1987) [hereinafter NEW YORK STATE WATER RESOURCES MAN-AGEMENT STRATEGY]; see also N.Y. DEPT. OF ENVTL. CONSERV., LONG ISLAND GROUND-WATER MANAGEMENT PROGRAM (June 1986) [hereinafter LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM]. These two related programs, discussed *infra* at pp. 374-75, are long-term efforts to meet the water resource requirements of New York and Long Island by resolving the regions' water quality and quantity crises. Their aim is to recommend numerous state and local actions to protect and remediate surface and groundwater suppliers, including conservation programs, water metering, and the enforcement of more stringent groundwater quality standards. See N.Y.S. Water Resources Management Program, Executive Summary at 1.

8. Effluent standards are uniform standards by which the quality of point source discharges of pollution is measured. See Federal Water Pollution Prevention and Control Program (Clean Water Act Amendments of 1972), 33 U.S.C. §§ 1311-1313-a (1982). Point source discharges are defined in the Clean Water Act (or CWA) as any "discernible, confined and discrete conveyance," such as an outfall pipe, from which pollutants may be discharged. 33 U.S.C. § 1362(14) (1982). Ambient standards apply to water loose in the environment (i.e., untapped groundwater), LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM, supra note 7, ch.3, at 10. In New York, ambient standards are set by the Dept. of Envtl. Conserv. (NYDEC) and drinking water standards(i.e., receiving waters within the distribution system) are set by the Dept. of Health (NYDOH). Id.

9. This refers to the 14th Amendment due process rights, including guarantees against discrimination and the taking of provate property without just compensation for the deprivation of the property's reasonable economic use. Phillips, *Nantucket's Land Bank: A New Direction in Land Conservation*, URBAN LAND, Dec. 1985, at 34.

10. Aquifers are "recharged" by precipitation infiltrating through land surfaces composed of highly permeable soil. Tripp and Jaffe, *Preventing Groundwater Pollution: Towards a Coordinated Strategy to Protect Critical Recharge Zones*, 3 HARV. ENVIL. L. REV. 1, 3 (1979). Groundwater movement through aquifers is extremely slow, often taking hundreds or thousands of years for water entering the aquifer to leave it. LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM, supra note 7, ch. 1, at 11.

<sup>5.</sup> Act of July 12, 1988, ch. 880, § 1, 1988 N.Y. Laws S. 9133, A. 11925 (codified in N.Y. Tax Law § 1210a (McKinney Supp. 1989)).

<sup>6.</sup> See infra pp. 381-82.

also supplement the efforts of privately-financed conservation organizations, which are usually financially constrained in their acquisition of development rights.<sup>11</sup> Finally, these new programs are appropriate and long-overdue responses to a type of pollution problem which has become increasingly serious but until recently has been largely ignored by legislators and by the public at large.<sup>12</sup>

Section I describes the federal and state regulatory backdrop against which the new public land acquisition programs are emerging, highlighting some of the problems these laws have faced in implementation. A description of New York's groundwater and toxic waste regulatory scheme demonstrates how one state has attempted to fill the gaps in the federal regulatory framework. Section II describes the importance, and some of the inadequacies, of land use controls, and urges the adoption of uniform state standards to be used in conjunction with land acquisition efforts. Section III outlines a number of pioneering local land banking and state land acquisition programs, illustrating both the exciting possibilities they represent and the difficulties they face.

#### I. THE REGULATORY SCHEME

### A. Federal Pollution Control Regulations and the EPA

The Environmental Protection Agency (EPA) was established in 1970 to administer and enforce the federal government's environmental protection programs.<sup>13</sup> The broadest and most important of the early water pollution control efforts is the 1972 Federal Water Pollution Control Act, or Clean Water Act (CWA).<sup>14</sup> Its main purpose is to grant to the EPA the authority to regulate point source

<sup>11.</sup> Phillips, supra note 9, at 34.

<sup>12.</sup> Several factors are resonsible for this attitude. Groundwater pollution is not often obvious, as is surface water pollution, and requires sophisticated detection techniques that have only recently become available. Note, *Developments in the Law—Toxic Waste Litigation: Introduction*, 99 HARV. L. REV. 1458, 1469 (1986) [hereinafter Note, *Toxic Waste Litigation*]. Furthermore, groundwater contamination is often caused by non-point source pollution, pollution from diffuse sources such as urban runoff and landfill or septic tank seepage. See Note, *State and Federal, supra* note 1, at 1434, n.6. The diffused nature of such pollution makes effluent standard regulation impossible and makes ambient standards difficult to maintain. *Id.* at 1436, n.24. Land use regulation would be effective, but federal and state governments have left the responsibility for this to local governments, and such programs are usually voluntary. *Id.* at 1439.

<sup>13.</sup> Cohen, The EPA: A Qualified Success, in Controversies in Environmental Policy 174, 178 (1986).

<sup>14. 33</sup> U.S.C. §§ 1251-1376 (1982).

discharges of pollution into surface waters.<sup>16</sup> However, the reference to the Act's applicability to "navigable waters,"<sup>16</sup> though ambiguous, could be broadly construed as applicable to groundwater as well.<sup>17</sup> The EPA could enforce its standards by imposing civil and/or criminal liability.<sup>18</sup>

Both the Clean Water Act and the EPA have been criticized for failing to adequately regulate groundwater pollution, even where the pollution source is a publicly operated waste treatment facility, a problem for which the Act is supposed to find innovative solutions.<sup>19</sup> Whereas the CWA has been effective in halting the further degradation of surface waters through the administration of the National Pollutant Discharge Elimination System (NPDES), most of the permits issued in compliance with the CWA's effluent standards have been to major industrial point source dischargers.<sup>20</sup>

Section 208 of the CWA<sup>21</sup> addresses groundwater and non-point source pollution, but only to the extent that each state is required to identify regions with water quality control problems and establish its own regulatory programs. The EPA can enforce compliance with this section only by denying CWA planning grants or by withdrawing its approval of a state's point source discharge permit program.<sup>22</sup> This provision does allow states to determine whether to use land use regulation to control groundwater pollution, but few states have been willing to do this.<sup>23</sup> Section 208 was considered so ineffective it was phased down and ultimately discontinued under the Reagan Administration,<sup>24</sup> and the tremendous potential of the CWA with respect to groundwater pollution control has not been realized. Groundwater problems are only vaguely alluded to; indeed, the Act's emphasis on surface water pollution may have exacerbated the contamination of groundwater aquifers by diverting pollution discharges from the surface to the ground.<sup>25</sup>

- 15. Note, State and Federal, supra note 1, at 1435.
- 16. 33 U.S.C. § 1251(a)(1) (1982).
- 17. Tripp and Jaffe, supra note 10, at 11.

- 19. Tripp and Jaffe, supra note 10, at 12.
- 20. Cohen, supra note 13, at 186.
- 21. 33 U.S.C. § 1288 (1982).
- 22. Note, State and Federal, supra note 1, at 1435.
- 23. Id. at 1439.
- 24. Cohen, supra note 13, at 186.
- 25. Tripp and Jaffe, supra note 10, at 14.

<sup>18.</sup> Glicksman, Federal Preemption and Private Legal Remedies for Pollution, 134 U. PA. L. REV. 121, 125 (1985).

In the Safe Drinking Water Act of 1974,<sup>26</sup> Congress delegated authority to the EPA to set drinking water standards and to develop treatment technologies to ensure the quality of community drinking water supplies. Aquifers are classified according to their viability as "Underground Drinking Water Sources" (UDWS), and priority is given to protecting UDWS's which are "endangered" by the injection of toxic contaminants.<sup>27</sup> The EPA dictates the minimum requirements for a state's drinking water program before the state may regulate deep well discharges into endangered groundwater sources.<sup>28</sup> The classification of aquifers into UDWS's and non-UDWS's and the use of the "endangerment" criterion has been criticized as deficient for not allowing the "differentiation of or setting of priorities among aquifers used for water supply, and because it completely disregards ecological needs."<sup>29</sup>

Section 1424(e) of the Safe Drinking Water Act, also known as the "Gonzalez Amendment,"<sup>30</sup> establishes a procedure by which the EPA may designate a critical aquifer as the "sole or principal source of drinking water for an area." Federal funds for a project may be withdrawn if the EPA determines thatthe activity will contaminate a sole source aquifer. The aquifer underlying the island of Guam was given sole source status in 1978,<sup>31</sup> and the aquifer system underlying Long Island's Nassau and Suffolk Counties received that designation in the same year.<sup>32</sup> New York City's Kings and Queens Counties, located at the western end of long Island, received sole source designation in 1984.<sup>33</sup> However, section 1424(e) has not been extensively used to halt federally-asisted construction projects in these areas.<sup>34</sup>

The EPA has issued National Primary and Secondary Drinking Water Standards listing maximum contaminant levels for certain

32. EPA Aquifers Underlying Nassau and Suffolk Counties, New York, 43 Fed. Reg. 26,611 (1978).

33. LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM, supra note 7, at ch.1, p.13.

34. Tripp and Jaffe, *supra* note 10, at 16-17. The first sole source designation made was the Edwards Underground Reservoir near San Antonio, Texas. This is the region most extensively reviewed by the EPA. As of 1979, the Agency had approved 10 of 16 projects in that area, and 5 were under study. *Id.* at 17 nn. 100, 140-42.

<sup>26. 42</sup> U.S.C. §§ 300f to 300j-9 (1976).

<sup>27.</sup> Id. at § 300h(d)(2).

<sup>28.</sup> Id. at 300h-1.

<sup>29.</sup> Tripp and Jaffe, supra note 10, at 16.

<sup>30. 42</sup> U.S.C. § 300(h)-3(e) (1976).

<sup>31.</sup> EPA Guam—Sole or Principal Source Aquifer Area Designation, 43 Fed. Reg. 17,868 (1978).

chemicals, as measured at the consumer's tap.<sup>35</sup> Primary Drinking Water Regulations cover organic pesticides and herbicides<sup>36</sup> as well as nitrogen,<sup>37</sup> a byproduct of fertilizer use. Several toxic heavy metals are also regulated, including arsenic, chromium, lead, mercury, and silver.<sup>38</sup> However, the EPA has not yet promulgated national ambient water quality standards for ground and surface waters; it has been urged to do this and to develop "national technology standards for industrial wastewater treatment. National standards in these areas are essential to establish a reasonable level of equity among States and regions."<sup>39</sup>

Federal hazardous waste regulations' demonstrate increased Congressional awareness of the severity of groundwater contamination due to leaks and spills of toxic compounds from landfills, hazardous waste disposal sites, and industrial plants. In 1976, Congress passed the Resource Conservation and Recovery Act (RCRA)<sup>40</sup> and the Toxic Substances Control Act (TOSCA),<sup>41</sup> which require the EPA to extensively regulate the generation, storage, transportation, disposal, and cleanup of hazardous wastes.

Under RCRA, both generators and transporters of hazardous materials must identify and accurately label the chemicals they ship.<sup>42</sup> Further regulations promulgated in 1978 by the EPA under the authority of this Act prohibit waste disposal sites over sole source aquifers,<sup>43</sup> require leachate monitoring systems at disposal sites,<sup>44</sup> and establish design and operation standards for landfills.<sup>45</sup> However, as of 1982 only twenty-one states had their own solid waste management plans approved by the EPA under this Act.<sup>46</sup>

The Toxic Substances Control Act is an attempt by Congress to

- 39. Id. at ch.3, at 5.
- 40. 42 U.S.C. §§ 6901-6987 (1982).
- 41. 15 U.S.C. §§ 2601-2629 (1976).
- 42. Note, Toxic Waste Litigation, supra note 12, at 1471.
- 43. 40 C.F.R. § 250.43-1(g) (1978).
- 44. 40 C.F.R. § 250.43-8 (1978).
- 45. 40 C.F.R. § 250.45-2 (1978).

46. Cohen, *supra* note 13, at 188. The RCRA has encountered serious industry oppostiion and inadequate resources, including a limited staff and excessive paperwork. *Id.* Because of the limitations of the Act in dealing with toxic waste remediation, the EPA developed and implemented the Superfund, *see supra* p. 371. Most states are now moving quickly to enact their own hazardous waste disposal laws in response to the lack of effective federal programs. *See infra* note 56.

<sup>35.</sup> LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM, supra note 7, ch.3, at 13.

<sup>36.</sup> Id. at ch.2, at 12.

<sup>37.</sup> Id. at ch.2, at 16.

<sup>38.</sup> Id. at ch.2, at 21.

directly control the contamination of the groundwater by toxins. It grants the EPA the authority to determine whether the disposal of certain chemicals constitutes an "unreasonable risk" to public health.<sup>47</sup> Where the risk exists the EPA may regulate the chemicals.<sup>48</sup>

In order to facilitate the clean-up of an estimated thirty to fifty thousand toxic waste sites existing in the U.S. prior to the enactment of RCRA,<sup>49</sup> Congress passed the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).<sup>50</sup> This Act established the so-called "Superfund" to help pay for hazardous waste site clean-up, and set up a "National Contingency Plan" to identify those high priority sites to be remediated.<sup>51</sup> However, the Superfund, like RCRA and TOSCA, has been plagued by administrative difficulties and inadequate funding.<sup>52</sup> EPA implementation of the Superfund clean-up has been slow; as of 1984, only 10% of the EPA's National Priority List sites had been remediated, another 19% were in the early stages of clean-up, and no action had been taken at all at 36% of the sites.<sup>53</sup>

# B. State Regulation

The Clean Water and Safe Drinking Water Acts, while failing to set forth a complete list of ambient and effluent standards for pollutants to be uniformly adopted by the states, have nevertheless influenced numerous states to adopt their own standards and ground-

52. Traditionally understaffed and underfunded, the EPA was about to implement the Superfund when President Reagan introduced budget cuts which slowed the Agency down. Cohen, *supra* note 13, at 188-89. The EPA was then reorganized, its decision-making authority centralized in Administrator Anne Gorsuch's office. *Id.* at 191-92. This move significantly slowed the decision-making process and lowered Agency morale, while environmental standards became more lax and deadlines were extended, removing incentives for industry to comply with EPA regulations. *Id.* at 191-93. The controversy over Gorsuch's policies became so great that she was forced to resign in March 1983, and President Reagan appointed William Ruckelshaus to rebuild the EPA, *Id.*. at 189-90. Undoubtedly, the disruption of the Agency by the Gorsuch Administration severely curtailed enforcement of other environmental programs, including the Clean Water Act, the Resource Conservation and Recovery Act, and the Toxic Substances Control Act.

53. Note, Toxic Waste Litigation, supra note 12, at 1474 n.47.

<sup>47. 15</sup> U.S.C. § 2603(a) (1976).

<sup>48.</sup> Id. at § 2605(a).

<sup>49.</sup> Cohen, supra note 13, at 188.

<sup>50. 42</sup> U.S.C. §§ 9601-9657 (1982).

<sup>51.</sup> Id. at § 9605. The Superfund is financed by taxes on the chemical industry (\$1.6 billion in revenue was projected) to be deposited into a cleanup trust fund. Cohen, supra note 13, at 188.

water management strategies. New York State has a strong groundwater regulatory scheme. The EPA has delegated authority to New York's Department of Environmental Conservation (NYS-DEC) to administer programs under the Clean Water Act and RCRA.<sup>54</sup> The New York State Department of Health (NYSDOH) likewise administers the Safe Drinking Water Act programs.<sup>55</sup> State legislation which mirrors the federal acts provides the state agencies with the requisite authority to administer the federal programs, and the latter provide important funding for the state programs.<sup>56</sup>

The NYSDEC is the state environmental agency, "responsible for assuring the quality and quantity management of groundwater that is loose in the environment."<sup>57</sup> Some aspects of the NYSDEC's water program, currently administered by its Division of Water, include "water resources planning, water quality standards and classifications, water quality monitoring and surveillance, [and] municipal and industrial wastewater discharge permits (SPDES)."<sup>58</sup>

In 1987, the NYSDEC's Division of Water drafted the New York State Water Resources Management Strategy, a state-wide plan for improving and maintaining groundwater and surface water quantity and quality by upgrading watershed rules and regulations, encouraging the aggressive use of local land use controls, requiring strict enforcement of state water pollution control laws, and recommending increased groundwater monitoring and additional treatment facilities as new maximum containment standards are adopted.<sup>59</sup>

The NYSDOH safeguards the public health and administers a program which, much like the Safe Drinking Water Act it mirrors, assures consumers a safe and adequate drinking water supply.<sup>60</sup> The program regulates "public water supply facility design and construction; periodic monitoring of the quality of waters delivered to the

<sup>54.</sup> LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM, *supra* note 7, ch.3, at 5. 55. *Id.* 

<sup>56.</sup> Id. Many states have reacted to the cumbersome and ineffective federal hazardous waste program under RCRA and CERCLA by enacting their own hazardous waste legislation. New York has the Hazardous Waste Disposal Site Remediation and Municipal Landfill Closure Programs under the 1986 Environmental Quality Bond Act, N.Y. COMP. CODES R. & REGS. tit. 6, §§ 360.9-375 (1987). The state has also recently passed the Solid Waste Management Act of 1988, 1988 N.Y. Laws S. 8107, A. 10652 (establishing a state solid waste management policy, creating a state bureau of waste recycling and reduction, and allocating funds appropriated for solid waste management).

<sup>57.</sup> LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM, *supra* note 7, ch.3, at 6. 58. *Id.* 

<sup>59.</sup> See LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM, supra note 7.

<sup>60.</sup> Id. at ch.3, at 7.

tap; periodic inspection and evaluation of all public water systems . . . and establishment and enforcement of state drinking water standards."<sup>61</sup>

Both the NYSDEC and NYSDOH have promulgated groundwater quality guidelines for toxic substances which are unregulated or less stringently regulated by the federal government through its National Primary Drinking Water Regulations. Examples include organic solvents like benzene, xylene, and carbon tetrachloride,<sup>62</sup> pesticides and herbicides like heptachlor and aldicarb,<sup>63</sup> ammonia and nitrates,<sup>64</sup> and synthetic organics such as PCB's, vinyl chloride, and chloroform.<sup>65</sup>

#### II. LAND USE REGULATION

Land use controls, such as zoning, subdivision regulations, and public health and safety ordinances, are important mechanisms for protecting and managing groundwater and environmentally sensitive lands.<sup>66</sup> Land use controls are primarily the responsibility of local governments (*i.e.*, cities, towns, and villages).<sup>67</sup> Zoning is the most commonly utilized of these methods. It may be used to (1) restrict certain uses in environmentally sensitive areas, such as wetlands and aquifer recharge zones, (2) implement restrictions on the minimum size, location, and density specifications for uses, such as lot size and building height, and (3) set performance standards specifying what can be done to the land, which must be met for all uses.<sup>68</sup> Special permits may then be issued to a landowner by a designated "board of experts."<sup>69</sup>

Sensitive area zoning programs are often limited by a lack of administrative expertise, a limited data base, a limited budget, and the failure to account for the unique features of each site.<sup>70</sup> Zoning restrictions are often attacked by landowners as discriminatory and

<sup>61.</sup> Id.

<sup>62.</sup> Id. at ch.2, at 8.

<sup>63.</sup> Id. at ch.2, at 12.

<sup>64.</sup> Id. at ch.2, at 16.

<sup>65.</sup> Id. at ch.2, at 20.

<sup>66.</sup> NEW YORK STATE WATER RESOURCES MANAGEMENT STRATEGY, *supra* note 7, ch.3, at 20-21.

<sup>67.</sup> See Note, State and Federal, supra note 1.

<sup>68.</sup> Kusler, *Regulating Sensitive Lands*, in LAND USE ISSUES OF THE 1980'S, 132-33, 135 (1983).

<sup>69.</sup> Id. at 135.

<sup>70.</sup> Id. at 133-135.

unconstitutional.<sup>71</sup> The New Jersey Legislature, in its Pinelands Protection Act,<sup>72</sup> attempted to avoid this problem through the use of development rights transfer credits.<sup>73</sup> These credits allow a landowner to transfer or sell the unused potential, or "development rights" of land within the Pinelands Reserve that is subject to zoning restrictions.<sup>74</sup> The sale of development rights, or their transfer to an area where greater density will be tolerated, allows the landowner to recover much of the value of his land's economic potential.<sup>75</sup> However, this may lead to crowding in the established transfer districts, which may require downzoning to accomodate the additional density.<sup>76</sup> This type of program has not gained widespread acceptance.<sup>77</sup>

Most local governments have failed to adequately regulate land use, both for the aforementioned reasons and out of a desire to attract development and industry.<sup>78</sup> Such underregulation can severely damage the environment. On the other hand, local overregulation of environmentally damaging land uses can result in the movement of such uses to relatively underregulated neighboring districts, harming

The Pine Barrens consists of 1600 square miles of Atlantic Coastal Plain, located in southern New Jersey, 50 miles south of New York City and 30 miles east of Philadelphia. Carol, *New Jersey Pinelands Commission*, in MANAGING LAND USE CONFLICTS 185-86 (1987). The sand and clay soil supports numerous unique pygmy forests, extensive numbers of plant and animal species, and overlays a huge surface and groundwater system threatened with contamination due to intense development pressures. *Id*.

73. N.J. STAT. ANN. § 13:18A-33 (West 1989).

74. W. Ginsberg, Preservation Law: Development Rights Transfer at 109 (1987) (unpublished manuscript).

75. Id.

76. Id. at 110(b). Downzoning increases the density of a development by reducing the basic minimum lot size in a given area. Downzoned districts may not have the ability to control the increased residential growth and traffic congestion because they lack the necessary public service capacity. Carol, supra note 72, at 213, 15. Transfer districts on the outskirts of the New Jersey Pine Barrens, such as Egg Harbor and Medford Townships, fear such results, because they are much larger than municipalities and "the costs of providing municipal services could be raised significantly by directing growth over an area larger than the average-sized town." Id. at 215.

77. Ginsberg, supra note 74, at 110. Transferable development rights programs also suffer from other recurrent problems, including (1) a lack of developer participation due to inadequate density options; (2) a lack of success in rural areas with weak development markets; and (3) the fact that such programs may be too difficult to understand, explain, and administer. Carol, supra note 72, at 213.

78. Note, State and Federal, supra note 1, at 1440.

<sup>71.</sup> See Phillips, supra note 9.

<sup>72.</sup> N.J. STAT. ANN. § 13:18A-1 (West 1984). The Pinelands National Reserve was established by Congress at 16 U.S.C. § 471i (1978) to protect this ecologically sensitive area through a "comprehensive management plan . . . to assure orderly public and private development in the area . . . ." 16 U.S.C. § 471(b)(2). The effort was to be partially funded by the federal government. 16 U.S.C. § 471 (b)(3).

their environment and ultimately damaging the economy of the overregulated district.79

New York currently requires local governments to adopt and enforce land use controls to protect their water supplies.<sup>80</sup> State review and remediation of local land use program inadequacies can greatly promote the uniform application of land use regulations within the state.81

#### LAND BANKING AND LAND ACQUISITION PROGRAMS Ш

Federal water pollution legislation, state water management programs, and local zoning regulations can be effective methods of controlling groundwater contamination. However, the implementation of these techniques is usually procedurally complex and timeconsuming. Additionally, they are often inadequate for preserving and protecting the wild and open character of environmentally unique and sensitive parcels that are facing imminent development. In response to this situation a number of local governments have initiated land banking programs with state cooperation.82

Land banks and private land trusts have existed as land acquisition tools since the late nineteenth century.<sup>83</sup> Today, the privatelyfunded, non-profit land trusts now claim over 300,000 members, and have managed to preserve over 680,000 acres of land in forty-one states.<sup>84</sup> Their basic goal is to "preseve representative or characteristic natural systems and features of the landscape before they become rare."85 However, private land trusts are greatly limited by the amount of money, staff, and public and local political support they

83. However, the nature of these trusts has changed dramatically; the original trusts were often "slow-moving, altruistic groups that inherited most of their holdings through the estates of the rich." Lueck, Conservationists Turn to Tough Tactics, N.Y. Times, Feb. 26, 1989, § 10 (Real Estate), at 1, col. 3.

84. Bremer, Portrait of Land Trusts in LAND SAVING ACTION 17 (1984). There are currently over 400 private land trusts operating in the United States, and this figure does not include national land trusts like the Nature Conservancy and the National Audubon Society. Id. at 19.

85. Id.

<sup>79.</sup> Id. at 1441, 1445-46.

<sup>80.</sup> NEW YORK STATE WATER RESOURCES MANAGEMENT STRATEGY, supra note 7, ch.4, at 22-23.

<sup>81.</sup> See generally, State and Federal, supra note 1.

Many states have their own land acquisition efforts. See infra pp. 378-80. However, 82. there is close cooperation between state and local governments in determining which parcels the state should acquire; there is no competition. Telephone conversation with Michael J. Deering, Senior Environmental Analyst, N.Y.S. Leg. Comm'n on Water Resource Needs of L.I. (March 8, 1989).

can get.<sup>86</sup> Skyrocketing real estate prices, especially in coastal and resort communities where development pressures are high, have forced area residents to seek the support of their local governments to help them preserve "the very scenic, environmental and recreational resources that attract residents and visitors in the first place."<sup>87</sup>

#### A. Nantucket's Pioneer Program

The first publicly-funded land bank was established by state enabling legislation on Nantucket Island, Massachusetts in 1983.<sup>88</sup> It was a response to the tremendous development pressure in this resort area, which accounted for \$150 million in real estate sales and the building of 400 homes annually.<sup>89</sup> As land prices soared and an increasing number of homes were bought by wealthy out-of-staters, Nantucket residents became concerned about reduced access to beaches and loss of open space.<sup>90</sup>

The Nantucket Islands Land Bank is administered by a fivemember commission elected for staggered five-year terms.<sup>91</sup> The program is financed by a two-percent transfer tax levied on a purchaser of almost any type of real estate, and paid directly to the Land Bank Commission.<sup>92</sup> Only then will the deed be recorded by the Nantucket County Registry.<sup>93</sup> Certain transactions are exempted from the tax, including gifts without consideration,<sup>94</sup> transfers to the federal or state government,<sup>95</sup> transfers to charities,<sup>96</sup> and the first \$100,000 of

- 94. Id. at § 12(c).
- 95. Id. at § 12(a).

<sup>86.</sup> *Id.* at 21. Sixty percent of all private land trusts have budgets smaller than \$20,000; the best-funded trusts have budgets in the millions of dollars. *Id.* at 20. These latter are located in the Middle Atlantic and Southern states, with museum- and Audubon-affiliated trusts having the largest budgets. *Id.* Such trusts derive money through private donations and through such ventures as annual dinners, T-shirt sales, mail order businesses, and direct solicitation. *Id.* at 21.

<sup>87.</sup> Nantucket Land Bank Comm'n, Nantucket Land Bank Program Introductory Materials at 2. However, private land trusts have increased in number and in influence in the 1980's as publicly-funded local land banks and state-funded land acquisition programs have emerged. Lueck, *supra* note 83, at 18. Private land trusts offer the advantage of being able to acquire land without getting mired in red tape; a state may also take advantage of a land trust's tax-exempt status by allowing the trust to act as an "intermediary" or "pre-acquirer" of land targeted for state acquisition. *Id*.

<sup>88. 1983</sup> Mass. Acts ch. 669, §§ 1-15.

<sup>89.</sup> Klein, Nantucket Tithes for Open Space, PLANNING, Aug. 1986, at 10.

<sup>90.</sup> Phillips, supra note 9, at 34.

<sup>91. 1983</sup> Mass. Acts ch.669 § 2.

<sup>92.</sup> Id. at § 10.

<sup>93.</sup> Id.

transfers to first-time purchasers of Nantucket land.<sup>97</sup> In 1987, the Land Bank Commission oversaw the collection of four million dollars, including almost a half million dollars in private donations, for a mean income of \$78,255 a week.<sup>98</sup>

Since its inception, the Nantucket Land Bank has amassed a total income of \$14.9 million<sup>99</sup> and has purchased, or negotiated the purchase of, forty-two properties totalling 884.69 acres.<sup>100</sup> The program is thus well on its way to reaching its goal of preserving fifteen percent of the island over twenty years;<sup>101</sup> approximately one-third of the 31,000 acre island has already been preserved through the efforts of private conservation organizations such as the Nantucket Conservation Foundation.<sup>102</sup>

The Land Bank seeks to acquire (1) beaches, dunes, and other ocean or pond frontage; (2) fresh and salt water marshes; (3) heathland and moors; (4) land providing access to ocean and pond frontage; and (5) land to protect existing and future wellfields and aquifer recharge areas.<sup>103</sup> No construction, dumping, excavation, or destruction of any type is allowed on the Land Bank properties.<sup>104</sup>

Nantucket has the unique advantage of being both a county of Massachusetts and a town; it therefore has broad powers, including the ability to collect the transfer tax, while having a town's political cohesiveness.<sup>105</sup> This has not prevented the land bank model from being adopted by other regions; a similarly aggressive plan exists on the neighboring island of Martha's Vineyard,<sup>106</sup> in Little Compton, Rhode Island,<sup>107</sup> and is currently being considered for enactment by

99. Id. The Land Bank Commission had an outstanding debt in 1987 of \$11.05 million in 1985 Land Acquisition Bonds, toward which the Land Bank paid \$982,000 in 1987. Id. at 3. Two land purchase notes remain outstanding in the amount of \$662,500. Id.

100. Nantucket Land Bank Comm'n, Nantucket Land Bank Properties List (purchases as of August 25, 1988).

101. Klein, supra note 89, at 11.

102. Phillips, supra note 9, at 34..

103. 1983 Mass. Acts ch. 669, § 5.

104. Id. at § 6. Additionally, Land Bank properties are permanently protected as conservation lands under the Massachusetts Constitution's Article 97. MARTHA'S VINEYARD LAND BANK COMMN. 1987-88 ANNUAL REPORT.

105. Phillips, supra note 9, at 35.

106. 1985 Mass. Acts ch. 736, §§ 1-16.

107. Little Compton Agricultural Conservancy Trust Act, 1985 R.I. Pub. Laws ch. 16, § 8. This program's transfer tax is up to 5% of the purchase price of real estate but is levied against only that amount of the purchase which exceeds \$75,000. *Id.* at § 8. In 1987, the Town

<sup>96.</sup> Id. at § 12(g).

<sup>97.</sup> Id. at § 12(m).

<sup>98.</sup> NANTUCKET LAND BANK COMM'N, 1987 ANNUAL REPORT 2.

the Massachusetts legislature for the fifteen towns of Cape Cod.<sup>108</sup>

#### B. Martha's Vineyard Land Bank

The 100-square mile island of Martha's Vineyard, also a wealthy resort area, has a regional land bank program for its six towns similar to Nantucket's. A seven-member Land Bank Commission<sup>109</sup> oversees the collection of revenue from the two-percent transfer tax.<sup>110</sup> Half of the two-percent fee goes directly into the Land Bank's Central Fund, and the other half goes into the Land Bank account for the town where the property is located.<sup>111</sup>

The Land Bank collects approximately \$4 million annually in transfer taxes, ninety percent of which is used to acquire land (\$3.6 million has been budgeted for use in land acquisition for the 1989 fiscal year).<sup>112</sup> As of June 30, 1988, the Land Bank had acquired eleven properties totalling 305.5 acres, after only two years of operation.<sup>113</sup> About fourteen percent of the island is currently held by the state, the Land Bank, and private conservation groups.<sup>114</sup>

### C. Suffolk County Water Protection Program

Long Island, New York lies at the southeastern corner of the state. It is approximately 120 miles long and twenty-five miles wide at its widest point. Its 1400 square miles are home to 6.7 million people,<sup>115</sup> half of whom rely on a vast aquifer system containing tens of trillions of gallons of pure drinking water.<sup>116</sup>

Four major aquifers underlie Long Island.<sup>117</sup> This vast system is

108. Klein, supra note 89, at 13.

raised \$238,933 in transfer tax revenue and purchased development rights to two tracts totalling 55 acres. *Public Notice, 1987 Annual Report*, Sakonnet Times, March 31, 1988, at 35. One of these tracts, a farm, will be funded in the amount of \$320,000 by the State of Rhode Island through its Natural Heritage Preservation Commission; the State has already funded \$400,000 toward the purchase price of a large tract of oceanfront property. *Id.* 

<sup>109. 1985</sup> Mass. Acts ch. 736, § 3. One member is elected from each of the Vineyard's six towns, and one member (either the secretary of environmental affairs or his designee) is appointed by the state. Id.

<sup>110.</sup> Id. at § 10.

<sup>111.</sup> MARTHA'S VINEYARD LAND BANK COMMISSION, 1987-88 ANNUAL REPORT.

<sup>112.</sup> Id.

<sup>113.</sup> Id.

<sup>114.</sup> Id.

<sup>115.</sup> LONG ISLAND GROUNDWATER MANAGEMENT PROGRAM, supra note 7, ch. 1, at 4.

<sup>116.</sup> Id. at ch. I, at 1.

<sup>117.</sup> The uppermost aquifer is the Glacial Aquifer. It is "unconfined," *i.e.*, its upper boundary is the level of the water table, a level dictated by gravity, below which the ground is saturated with water. This aquifer extends from a depth of 50 feet to about 500 feet, and is the

supplied by an annual rainfall of fourty-four inches, which recharges the aquifers in a zone stretching east to west along the central spine of the island.<sup>118</sup>

A groundwater quality and quantity crisis exists on Western Long Island, the result of rapid urbanization and concurrent organic contamination and overpumping. Suffolk County, occupying the eastern two-thirds of the Island, remains relatively advantaged quality-wise,<sup>119</sup> but it, too, is rapidly developing, threatening both the quality of its groundwater<sup>120</sup> and the existence of several unique and relatively unspoiled ecosystems remaining in the County's eastern end.

Both New York State and Suffolk County have responded to the problem with land acquisition programs. Suffolk is currently implementing several efforts. A \$60 million open space preservation program was enacted in 1986 by the County Legislature<sup>121</sup> with the goal of purchasing 4539 acres of environmentally-sensitive land.<sup>122</sup> Suffolk has bought approximately one-half of these properties, including over 200 acres of Peconic River headwaters and 67 acres of the 2000-acre Dwarf Pine Plains, an ecologically unique tract of pygmy pitch pine forest in Westhampton.<sup>123</sup>

Suffolk's newest effort is known as the County Drinking Water Protection Program and was enacted by state enabling legislation on July 12, 1988.<sup>124</sup> This program amended the New York Tax Law (effective Sept. 1, 1988),<sup>125</sup> extending a quarter-percent sales and

118. Id. at ch. I, p. 9. The recharge zone follows the glacially-carved Ronkonkoma and Harbor Hills Terminal Morraines, the former defining the East End's South Fork and the latter forming the North Fork. Id. at ch. I, at 7-8.

119. Id. at ch. I, at 1, 15.

120. Six percent of Suffolk's wells exceeded NYSDOH guidelines for at least one organic chemical in a 1980 study. *Id.* at ch. 2, at 5. Twenty-two percent had detectable levels of at least one organic chemical. *Id.* 

121. Suffolk Co. Res. 762 of 1986.

122. Suffolk County Open Space Preservation Program of 1986, Description of Properties

123. Saving Groundwater, Long Island Newsday, Nov. 7, 1988, at 1.

124. 1988 N.Y. Laws S. 9133, A. 11925.

125. N.Y. TAX LAW § 1210-A (McKinney 1988).

main source of drinking water in central and eastern Suffolk. The Jameco Aquifer is a narrow aquifer underlying the South Shore. It supplies the barrier beach communities like Long Beach. The huge Magothy Aquifer extends from 150 feet to 1100 feet below the surface and supplies southeastern Queens, Nassau, and western Suffolk Counties with drinking water. Where the titled Lloyd Acquifer approaches the surface, in Northwestern Nassau County, it recharges that area and the Queens barrier beaches, including the Rockways. See id., supra note 7, ch. I, at 4-7.

compensating use tax formerly used by the County to finance improvements to the Southwest Sewer District. The money collected by the tax after December 1, 1988 is deposited in a "drinking water protection reserve fund" created by the County to (1) acquire environmentally sensitive land in designated groundwater protection areas to preserve the county's drinking water; (2) share county revenues with towns for the acquisition of environmentally sensitive lands, capping and closing of existing landfills, and for identification and remediation of toxic waste sites; (3) institute water quality protection programs and enforce state and county environmental protection laws; (4) make payments in lieu of taxes to municipalities and taxing jurisdictions where land is acquired; and (5) stabilize the County's property tax rates.<sup>126</sup>

The \$570 million program,<sup>127</sup> a type of land bank, became law on July, 12, 1988, and Suffolk County voters recently voted to extend the existing quarter-percent sales tax, a move which is expected to generate an additional \$300 million in revenue for the land bank.<sup>128</sup> The County recently completed its first major purchase under the new program, a 777-acre tract of sensitive groundwater recharge land adjacent to Hither Hills State Park, near Montauk, at a cost of \$17 million.<sup>129</sup>

A number of Suffolk's towns have also instituted preservation programs. Southampton has a farmland preservation program and has considered a \$8 million bond issue for further acquisitions.<sup>130</sup> Easthampton recently acquired a 525-acre estate for \$6 million.<sup>131</sup> Additionally, the County has a \$21 million farmland preservation program.<sup>132</sup>

130. Cunningham, Brokers Praise Nantucket's Novel Open Space Tax, Southampton Press, Sept. 4, 1986, at 1.

131. Id.

132. Id.

<sup>126. 1988</sup> N.Y. Laws S. 9133, A. 11925, 1(d)(i)-(v).

<sup>127.</sup> Letter from Michael J. Deering, Senior Environmental Analyst, N.Y.S. Leg. Comm'n on Water Resource Needs of L.I. (Sept. 20, 1988).

<sup>128.</sup> Saving Groundwater, supra note 123, at 1.

<sup>129.</sup> Suffolk Buys Clam Island for \$2.5 Million, Long Island Newsday, Dec. 29, 1988, at 29. Additionally, Suffolk has recently acquired the 98-acre Wicks Farm Property in Huntington for \$10.75 million (see Bunch, Suffolk Buys Wicks Farm for \$10.75 Million, Long Island Newsday, June 2, 1989, at 21, as well as the 263-acre Havens Estate, a tidal refuge on the South Shore purchased for \$125 million (see Bunch, Suffolk Buys Havens Estate, Long Island Newsday, July 12, 1989, at 5). The County's attempted purchase of environmentally sensitive Robins Island, in the Great Peconic Bay, has been mired in legal disputes for several months. See Wick, Robins Island Debt Paid: Auction Is Off, Newsday, July 6, 1989, at 24.

### D. Problems for Land Bank Programs

Suffolk's six eastern towns of Brookhaven, Southampton, East Hampton, Riverhead, Southold, and Shelter Island recently submitted to the New York State Senate a bill which would have established land banks and transfer taxes similar to Nantucket's in each of those towns.<sup>133</sup> The bill had passed the Assembly but was defeated in the Senate.<sup>134</sup> Perhaps the problems faced by this bill are indicative of the limitations of, or opposition to, land bank programs and private land trusts.

Opponents argue that land banks exacerbate rising real estate prices and, ultimately, housing costs, by decreasing the amount of developable land.<sup>135</sup> This argument is especially convincing for wealthy resort communities like Nantucket, Martha's Vineyard, or the Hamptons, where land is scarce and already commands a premium price. In regions of relatively high population density with large numbers of middle and lower class residents, such as Suffolk's Brookhaven Town, there is also likely to be strong public opposition to a preservation program which makes it more difficult for people to own a home. In rural areas, local officials are likely to view the activities of a private trust or public land bank as a threat to economic development and tax revenues.<sup>136</sup>

A town land bank may be viewed as superfluous in a county which has already adopted several of its own preservation programs. A number of Suffolk's eastern towns, including Southampton<sup>137</sup> and Brookhaven,<sup>138</sup> already have town-wide open space preservation programs. The towns of Riverhead, Shelter Island, and Southold may have more success in the state legislature if they attempt to seek enabling legislation for the establishment of separate, town-wide land banks.

The real estate lobby is a powerful opposing force for land banks to deal with. Realtors feel the transfer tax is discriminatory:

<sup>133. 1988</sup> N.Y. A. Res. 8600-B.

<sup>134.</sup> Telephone conversation with Michael J. Deering, Senior Environmental Analyst, N.Y.S. Leg. Comm'n on Water Resource Needs of L.I. (Jan. 4, 1989). This is the fifth year in a row that this bill has failed to pass the New York Legislature.

<sup>135.</sup> Phillips, *supra* note 9, at 35. Lands next to state and local conservation preserves also tend to increase in value.

<sup>136.</sup> Lueck, supra note 83, at 18, col. 1.

<sup>137.</sup> See supra p. 377.

<sup>138.</sup> Brookhaven has a \$7 million land preservation fund, with which it has recently purchased two environmentally sensitive tracts for \$3.4 million. Brookhaven to Use Preservation Fund, Long Island Newsday, Feb. 2, 1989, at 30.

the whole community should bear the costs of land acquisition, not only those who buy land.<sup>139</sup> The lobbyists fear the land bank concept will lead to town purchases of all available land.<sup>140</sup> This fear is unjustified because such a tactic would damage regional economies by limiting industrial and residential growth and would not likely be pursued by local officials, especially as previously noted, those in sparsely populated rural districts.

Finally, there are those who argue that land bank transfer taxes lead to double taxation: first against the real estate developer, and then against the buyer of the finished home.<sup>141</sup> However, despite the opposition, the land bank concept appears to be spreading as a powerful local government tool used to supplement federal and state anti-pollution and conservation efforts.

#### E. State Land Acquisition Programs

A number of states have already considered or enacted their own land acquisition programs, funded by the sale of bonds. New Jersey's Pinelands Commission has been acquiring property for years with \$14 million in federal funds.<sup>142</sup> Directly administered by the EPA's Office of Pinelands Acquisition, 22,578 acres had actually been purchased as of January 1983.<sup>143</sup> Furthermore, New Jersey's own "Green Acres Revolving Fund" has been acquiring land, and the Administration of Governor Thomas Kean is recommending that \$300 million be added to the program this year.<sup>144</sup> Connecticut has a \$100 million, five-year land acquisition program.<sup>145</sup>

In 1986, New York approved its \$1.45 billion Environmental Quality Bond Act,<sup>146</sup> \$250 million of which is to be used for land acquisition purposes,<sup>147</sup> and the rest for remediating inactive toxic waste sites.<sup>148</sup> Work carried out under the program is financed by a

139. Precious, The Struggle Over Land Use: Towns Embracing the 'Land Bank' Idea, The Washington Post, Oct. 31, 1987, at E9, col. 1.

143. Id. A total of 100,000 acres are targeted for acquisition for use as state parks, forests, and wildlife management areas. Id.

144. Lueck, supra note 83, at 18, col. 2.

147. N.Y. COMP. CODES R. & REGS. tit. 6, § 591 (1987).

<sup>140.</sup> *Id*.

<sup>141.</sup> Phillips, supra note 9, at 35.

<sup>142.</sup> Carol, supra note 72, at 212.

<sup>145.</sup> Id.

<sup>146.</sup> N.Y. ENVTL. CONSERV. LAW § 52-701(3) (McKinney 1984).

<sup>148.</sup> N.Y. COMP. CODES R. & REGS. tit. 6, § 375 (1987). \$2 billion will be spent by firms, municipalities, or individuals responsible for the waste sites, and \$800,000 will come from the Federal Superfund. Clean-up will last into the next century. N.Y. STATE DEP'T OF

state "Capital Projects Fund," which is reimbursed as the state comptroller sells general obligations bonds.<sup>149</sup>

The stated purpose of the state's land acquisition program is to preserve and improve the state's environment "through the acquisition of additional forest preserve lands . . . and . . . other environmentally sensitive lands which will preserve aquifer recharge areas, areas of exceptional scenic beauty<sup>150</sup> or exceptional forest character,<sup>151</sup> open space, pine barrens, public access, . . . unique character, wetlands, and wildlife habitats."<sup>152</sup>

The land acquisition program is overseen by both the NYSDEC and the Office of Parks, Recreation and Historic Preservation (OPRHP).<sup>153</sup> Funding is limited, so the Bond Act Regulations contain a "Project Ranking Procedure"<sup>154</sup> whereby projects are given a "score" which is the sum total of certain characterisitics possessed by the projects. These characterisitics are rated according to their relative importance, and the most important is "vulnerability"—"the degree of urgency for acquisition by the state in order to preserve the resource."<sup>155</sup> Vulnerability is expressed by the letters "A," "B," "C," and "D" (with "A" meaning development in less than two years and "D" meaning development over ten years away).<sup>156</sup>

Each type of property is also given a separate numerical "natural resource value rating"; the vulnerability rating is worth a certain percentage of the resource value rating, and the two scores are ultimately added and the total ranked with other scores in the same land category.<sup>157</sup> A priority list is then made, and environmental im-

151. "Exceptional forest character project" is defined as "a State project to acquire forest land which possesses such attributes as maturity of growth, significant population of rare or uncommon forestland plants, scientific harvesting potential, aesthetic appeal or recreational opportunity." *Id.* at § 591.2(j).

152. Id. at § 591.1(a).

153. ENVIRONMENTAL QUALITY BOND ACT, supra note 153, at v.

154. N.Y. COMP. CODES R. & REGS. tit. 6, § 591.4 (1987).

155. Id. at § 591.4(b).

156. Id.

157. Id. at §§ 591.4(c)(8) and (d)(4). For example, for a piece of Forest Preserve land, a vulnerability score of A adds 25% of the natural resource value rating onto the final score; for aquifer recharge areas, a vulnerability score of A adds 10 points to the resource value

ENVTL. CONSERV., ENVIRONMENTAL QUALITY BOND ACT OF 1986, 1987 ANNUAL REPORT AT V [hereinafter Environmental Quality Bond Act].

<sup>149.</sup> Id.

<sup>150. &</sup>quot;Exceptional scenic beauty project" is defined as "a State project to acquire land forms, water bodies, geologic formations or vegetation which possess significant scenic qualities or significantly contribute to scenic values." N.Y. COMP. CODES R. & REGS. tit. 6, § 591.2(k) (1987).

pact studies are performed on targeted parcels.<sup>158</sup>

Under this system, New York recently financed the acquisition of over 55,000 acres in land and easements for addition to the six million acre Adirondack State Park.<sup>159</sup> The state also made a \$1.5 million purchase of thirty-two acres of pine barrens at Long Island's Rocky Point Natural Resource Management Area.<sup>160</sup>

#### CONCLUSION

Over the next several years the trend towards an increasing public and legislative awareness of environmental issues will likely continue. Although the federal groundwater pollution framework continues to lack a complete set of uniform ambient and effluent guidelines, states are moving to fill the gap with their own legislation modeled on the federal scheme and often containing more stringent guidelines. The complex problems involved in toxic waste disposal and remediation will have to be addressed more efficiently by the EPA, which must be more aggressive in asserting its authority as a regulatory agency by threatening sanctions against those polluters who do not comply with the agency's clean-up directives. With states now enacting more stringent groundwater and toxic waste legislation, the possibility exists that further degradation of the groundwater can be halted and possibly reversed.

Local land bank programs and state land acquisition efforts are increasing in number as the federal and state antipollution framework evolves and becomes more effective. Coupled with careful land use regulation and supplemented by the ongoing efforts of privatelyfunded land trusts, land acquisition programs hold the promise of protecting forever those regions which often cannot sustain even limited development: areas of porous soil which serve as groundwater aquifer recharge zones, wilderness areas of unusual beauty, and ecologically sensitive regions which are home to rare or unusual plant

score, while a vulnerability score of D adds 3 points.

<sup>158.</sup> The NYSDEC prepared a "Generic Environmental Impact Statement" (GEIS) last year for all acquisitions made by the Department. After public review and comment, a final GEIS was issued, and Bond Act acquisition was begun. ENVIRONMENTAL QUALITY BOND ACT, *supra* note 148, at 9. A total of 50 projects are now on the NYSDEC's priority list for acquisitions, totalling more than 92,000 acres. *Id.* at 10. *See infra* notes 159, 160.

<sup>159.</sup> State to Buy 55,00 Adirondack Acres, Long Island Newsday, Dec. 29, 1988, at 17. 160. Olojede, State Buys Pine Barren Parcels, Long Island Newsday, Nov. 28, 1988, at

<sup>31.</sup> The state-owned preserve now contains 5,211 acres. New York also purchased 889 acres on the shore of Lake Ontario and 613 acres of Ontario County wetlands at a cost of \$2.1 million. *1d*.

and animal species. Land acquisition programs also allow suburban areas to retain open space for recreation while preventing the rapid, haphazard development that has characterized regions like Long Island's Nassau County since the late 1950's. Strict enforcement of environmental and land use regulations and effective administration of public and private land trusts are the keys to ensuring a future where our country is at peace with its environment, enabling its citizens to enjoy its many irreplaceable resources forever.

Steven C. November