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## COMMENTS

# Municipal Riparian Buffer Regulations in Pennsylvania—Confronting the Regulatory Takings Doctrine

## I. Introduction

Years of deforestation, farming, mining, and urban and suburban development have contributed to the water quality degradation of Pennsylvania's rivers and streams.<sup>1</sup> Protection and restoration of riparian forest buffers<sup>2</sup> is one means to prevent further degradation and improve water quality. Riparian forests regulate surface runoff<sup>3</sup> and control nonpoint source<sup>4</sup> pollution.<sup>5</sup>

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1. See ALLIANCE FOR THE CHESAPEAKE BAY, PA. DEP'T OF ENVTL. RESOURCES, WETLAND AND RIPARIAN STEWARDSHIP IN PENNSYLVANIA 2 (1997).

2. Riparian land is land bounded by a natural watercourse. See BLACK'S LAW DICTIONARY 1327 (6th ed. 1990). A riparian buffer (also known as a streamside buffer) is a streamside area of trees or other vegetation designed to intercept surface runoff and subsurface flow from upland sources for the purpose of removing or buffering the effects of excessive sediment, nutrients, pesticides or other pollutants prior to their entry into surface waters. See *id.* at 1; DAVID J. WELSCH, U.S. DEP'T OF AGRICULTURE, PUB NO. NA-PR-07-91, RIPARIAN FOREST BUFFERS 21 (1991).

3. Runoff may be defined as "[t]hat part of precipitation, snow melt or irrigation water that runs off the land into streams or other surface water." ENVIRONMENTAL LAW DICTIONARY 137 (Neil Stoloff ed.) (1993).

4. Nonpoint source pollution may be defined as pollution "that [is] diffuse and [does] not have a single point of origin or is not introduced into a receiving stream from a specific outlet. The pollutants are generally carried off the land by stormwater runoff." *Id.* at 103. Some common sources of nonpoint source pollution are agriculture, urban activities, mining, and construction. See *id.*

5. See WELSCH, *supra* note 2, at 1.

Riparian forests also serve as an integral part of a stream's ecosystem, providing food and habitat for a diversity of wildlife.<sup>6</sup>

Most of the land along the more than 53,000 miles of Pennsylvania's streams is privately owned.<sup>7</sup> The protection and restoration of Pennsylvania's riparian forests require limitations on the use of privately owned riparian land.<sup>8</sup> These limitations must be either voluntarily undertaken by private landowners or imposed through government regulation.

Although there exists federal and state legislation which generally protects the character and quality of Pennsylvania's streams,<sup>9</sup> there are no mandated statewide measures that purposefully and comprehensively regulate riparian land to improve water quality.<sup>10</sup> In Pennsylvania, land use is primarily regulated by local municipalities pursuant to the Pennsylvania Municipal Planning Code.<sup>11</sup> Recently, a few Pennsylvania municipalities have begun to address the issue of protecting riparian forests through land use ordinances.<sup>12</sup>

Kennett Township in Chester County has adopted riparian buffer regulations<sup>13</sup> designed to protect streams and other environ-

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6. *See id.*

7. *See* ALLIANCE FOR THE CHESAPEAKE BAY, *supra* note 1, at 1-2.

8. *See id.* at 1 (noting the role of the private landowner in the conservation and restoration of riparian buffers).

9. *See, e.g.,* Federal Water Pollution Control (Clean Water) Act, 33 U.S.C. §§ 1251-1387 (1994); The Clean Streams Law, PA. STAT. ANN. tit. 35, §§ 691.1-691.1001 (West 1993); Dam Safety and Encroachments Act, PA. STAT. ANN. tit. 32, §§ 693.1-693.27 (West 1997).

10. An example of statewide legislation which regulates riparian land with the purpose of benefiting water quality is the Massachusetts Watershed Protection Act, MASS. GEN. LAWS ANN. ch.92, §§ 104, 107A (West 1993).

11. Pennsylvania Municipalities Planning Code, PA. STAT. ANN. tit. 53, §§ 10101-11202 (West 1997).

12. Pennsylvania municipalities that have enacted or are considering land use regulations to protect riparian forest buffers include, but may not be limited to: Lycoming County, Montgomery County, Kennett Township, and West Brandywine Township. Telephone Interview with Caren E. Glotfelty, Maurice K. Goddard Professor of Forestry and Environmental Resource Conservation, School of Forest Resources, Dep't of Agriculture, Penn. State University (Oct. 6, 1997); Interview with John D. Snook, Associate Director, Design, Environmental Management Center, Brandywine Conservancy, in Chadds Ford, Pa. (Nov. 14, 1997).

13. *See* Kennett Township, Chester County, Pa., Zoning Ordinance, Ordinance 50, § 1414 (Jul. 15, 1985), *amended by* Ordinance 107 (Jul. 15, 1996); Kennett Township, Chester County, Pa., Subdivision and Land Development Ordinance, Ordinance 46, § 516 (Aug. 15, 1983), *amended by* Ordinance 108 (Jul 15, 1996). This comment refers to regulations as governmental restrictions that are imposed by statutes and ordinances. However, this use of the term regulation is not technically correct.

mentally important areas.<sup>14</sup> West Brandywine Township, also in Chester County, has followed Kennett's lead.<sup>15</sup> The effectiveness of these regulations in protecting the environment depends upon their ability to withstand legal challenges. Land owners who believe their property rights are unreasonably restricted by government regulations may be entitled to judicial relief in the form of just compensation.

This Comment evaluates the constitutionality of municipal riparian buffer regulations in Pennsylvania using the Kennett Township regulations<sup>16</sup> as a case study. Part II of this Comment provides an introduction to riparian forest buffers. Part III is a review of federal and Pennsylvania legislation pertinent to the protection of surface water<sup>17</sup> quality. Part IV of this Comment summarizes the current state of the regulatory takings<sup>18</sup> doctrine under both the United States Constitution and the Pennsylvania Constitution. Part V then applies the current takings doctrine to the Kennett Township riparian buffer regulations and argues that the regulations will achieve their goals while avoiding the issue of regulatory takings.

## II. Riparian Forest Buffers

### A. *Environmental Benefits*

Each of the more than 53,000 miles of streams and rivers in Pennsylvania falls within one of six primary drainage basins or watersheds.<sup>19</sup> Two of these basins, the Susquehanna and the

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14. See *Kennett Township Proposes Progressive Riparian Buffer Regulations*, ENVIRONMENTAL CURRENTS (Brandywine Conservancy, Environmental Management Center, Chadds Ford, Pa.), Summer 1996, at 4.

15. Interview with John D. Snook, *supra* note 12. The Brandywine Conservancy, Environmental Management Center completed a final draft of Riparian Resource Protection Provisions on Sep. 15, 1997 under contract to West Brandywine Township. *Id.*

16. See *supra* note 13.

17. Surface water, as used here, includes water falling on the surface of the earth which then runs off and forms lakes and streams. Ground water is water found underground in porous rock strata and soils. See generally WEBSTER'S NEW TWENTIETH CENTURY DICTIONARY 805, 1834 (2nd ed. 1979).

18. There is a taking of property when government action directly interferes with or substantially disturbs the owner's use and enjoyment of that property. BLACKS LAW DICTIONARY 1454(6th ed. 1990). See also *infra* note 150.

19. U.S. DEP'T OF THE INTERIOR GEOLOGICAL SURVEY, PA. DEP'T OF ENVTL. RESOURCES, PENNSYLVANIA GAZETTEER OF STREAMS ii (1989). The six basins include the Delaware, Susquehanna, Ohio, Potomac, Lake Erie, and Genesee basins. *Id.*

Potomac, are part of the greater Chesapeake Bay basin.<sup>20</sup> As the largest and most productive estuary in the United States,<sup>21</sup> the Chesapeake Bay is the focus of federal and state cooperative efforts<sup>22</sup> initiated to protect and restore the Bay's waters and riparian zones.<sup>23</sup> Much of the information known about riparian buffers has been acquired through the federal and state efforts to protect the Chesapeake Bay.

Before the arrival of European settlers, over 95% of the landscape of Pennsylvania was forested.<sup>24</sup> Today, less than half of the rivers and streams in the state have adequate riparian forest buffers on both of their banks.<sup>25</sup> The loss of forests is correlated with declining water quality in many rivers and streams.<sup>26</sup> In the rapidly developing southeastern and southcentral portions of Pennsylvania most of the forest buffer acreage has disappeared.<sup>27</sup> Protection against pollution and floodwater provided by riparian forest buffers is needed most in these more densely populated areas.<sup>28</sup>

Riparian forests are essential to healthy watersheds for many reasons. Their position in the landscape makes them excellent

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20. See PENNSYLVANIA CHESAPEAKE BAY PROGRAM, PA. DEP'T OF ENVTL. PROTECTION, KEYSTONE IN THE CLEANUP 1 (1997). Pennsylvania constitutes over one-third of the 64,000 square mile Chesapeake Bay Basin. *Id.* Fifty-two percent of Pennsylvania lies within the Bay Basin. *Id.* The Susquehanna River drains 92% and the Potomac River drains 7% of the Bay Basin located within Pennsylvania. *Id.*

21. See *id.* at 1-2.

22. The Environmental Protection Agency coordinates the Chesapeake Bay Program which was created as a cooperative, consensus based effort to restore the bay. Policy is set by the Chesapeake Executive Council, consisting of the governors of Maryland, Virginia and Pennsylvania; the mayor of the District of Columbia; the EPA administrator; and the chairman of the Chesapeake Bay Commission, which represents the legislatures of the three states. See ALLIANCE FOR THE CHESAPEAKE BAY, RIPARIAN FOREST BUFFERS WHITE PAPER 2 (1996). See also 33 U.S.C. § 1267 (1994) (providing for the Chesapeake Bay Program); 32 PA. STAT. ANN. § 820.11 (West 1997) (establishing membership on the Chesapeake Bay Commission).

23. See U.S. ENVTL. PROTECTION AGENCY, FACT SHEET EPA-903-F-95-001, RIPARIAN FOREST BUFFERS IN THE CHESAPEAKE BAY WATERSHED 1 (1995).

24. See *id.*

25. See *Trees and the Bay*, BAY JOURNAL (photo. reprint n.d.) (Alliance for the Chesapeake Bay, Baltimore, Md.), Nov. 1993 at 1.

26. See ALLIANCE FOR THE CHESAPEAKE BAY, *supra* note 22, at 2. "Acre for acre, forests contribute less sediment and nutrient runoff pollution than any other land use; [their] ability to filter water is comparable to wetlands." *Id.*

27. See ALLIANCE FOR THE CHESAPEAKE BAY, *supra* note 1, at 2.

28. See *id.* "[The] role of [riparian buffers] as natural flood control devices is critical for the state of Pennsylvania, the most flood-prone state in the nation." *Id.*

buffers between upland areas and water courses.<sup>29</sup> They control nonpoint source pollution by filtering sediment, fertilizers, and pesticides out of surface runoff.<sup>30</sup> The trees provide both shade that moderates water temperature, and root systems, that hold soil in place, thereby stabilizing streambanks and reducing erosion.<sup>31</sup> Leaves and other organic matter provide food for aquatic creatures while woody debris such as fallen trees and limbs provide habitat for small fish and other bottom dwelling aquatic creatures.<sup>32</sup> Riparian forests also serve as natural flood control devices by retarding and absorbing storm water flows.<sup>33</sup>

In addition to their contributing to the aquatic environment, riparian forests promote a diversity of terrestrial habitat.<sup>34</sup> Riparian forests provide habitat for migratory neotropical songbirds, many of which are threatened due to loss of habitat.<sup>35</sup> Moreover, many species of waterfowl, amphibians, small mammals, and game animals utilize riparian forests for food, cover, and nesting places.<sup>36</sup>

#### *B. Physical Description*

Riparian forest buffers generally consist of three distinct zones, each serving a different environmental function and varying in size and benefit depending on the given river or stream.<sup>37</sup> This three zone buffer concept allows environmental planners to accomplish water quality, habitat, and landowner objectives across widely varying landscapes.<sup>38</sup>

The primary riparian forest buffer zone may consist of a fifteen-foot wide strip of mature forest along the water's edge that maintains habitat, regulates water temperature and helps stabilize

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29. See U.S. ENVTL PROTECTION AGENCY, *supra* note 23, at 2.

30. See *id.*; ALLIANCE FOR THE CHESAPEAKE BAY, *supra* note 1, at 2. Fertilizers and other organic pollutants are taken up by tree roots; Nutrients are stored in leaves, limbs, and roots to eventually be digested by bacteria through the decomposition process. See U.S. ENVTL PROTECTION AGENCY, *supra* note 23, at 2.

31. See Bay Journal, *supra* note 25 at 1. Shade maintains cool water temperatures essential to the health of aquatic species and protects against rapid temperature fluctuations that stress stream life. See *id.*

32. See *id.*; ALLIANCE FOR THE CHESAPEAKE BAY, *supra* note 1, at 2.

33. *Id.*

34. See U.S. ENVTL PROTECTION AGENCY, *supra* note 23, at 2.

35. *Id.*

36. See ALLIANCE FOR THE CHESAPEAKE BAY, *supra* note 1, at 2.

37. See ALLIANCE FOR THE CHESAPEAKE BAY, *supra* note 22, at 3-5.

38. See *id.* at 4.

stream banks and remove pollutants.<sup>39</sup> The secondary zone may be a sixty-foot wide managed forest, upland of zone one, that functions to remove sediment and pollutants and serves to retard and absorb runoff.<sup>40</sup> The third zone may be a twenty-five-foot wide herbaceous<sup>41</sup> or grass strip upland of zone two which can filter sediment and retard and absorb runoff.<sup>42</sup>

Planners generally consider a riparian buffer width of seventy-five to one hundred feet on each side of a stream adequate to achieve substantial environmental benefits.<sup>43</sup> While wider buffers are better able to control runoff, even a narrow buffer of only twenty-five feet can benefit water quality.<sup>44</sup> Narrow buffers are appropriate where wider strips of forested land are not practical or where streams themselves are narrow.<sup>45</sup> Regardless of size, riparian forest buffers help control stream environments and improve habitat for wildlife in almost all landscapes.<sup>46</sup>

### III. Laws Concerning Riparian Land and Nonpoint Source Pollution

The protection and restoration of riparian forest buffers is as much an environmental issue as it is a land use issue. The difference between environmental control and land use regulation is one of degree rather than kind.<sup>47</sup> Control of nonpoint source

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39. See WELSCH, *supra* note 2, app. at 1. See also U.S. ENVTL. PROTECTION AGENCY, *supra* note 23, at 3; ALLIANCE FOR THE CHESAPEAKE BAY, *supra* note 22, at 4.

40. See WELSCH, *supra* note 2, app. at 2. See also U.S. ENVTL. PROTECTION AGENCY, *supra* note 23, at 3; ALLIANCE FOR THE CHESAPEAKE BAY, *supra* note 22, at 4. The size of zone 2 may vary to reduce pollution runoff and to accommodate land management objectives such as improving wildlife habitat or providing recreational facilities such as bike paths. See ALLIANCE FOR THE CHESAPEAKE BAY, *supra* note 22, at 4. As a managed forest, zone 2 permits timber harvesting. See *id.*

41. Herbaceous describes an area of grasses or other soft, low vegetation rather than an area of trees and other woody plants. See ALLIANCE FOR THE CHESAPEAKE BAY, *supra* note 22, at 4.

42. See WELSCH, *supra* note 2, app. at 2. See also U.S. ENVTL. PROTECTION AGENCY, *supra* note 23, at 3; ALLIANCE FOR THE CHESAPEAKE BAY, *supra* note 22, at 4. Compatible uses in zone 3 may range from suburban lawns to pasture land. See ALLIANCE FOR THE CHESAPEAKE BAY, *supra* note 22, at 4.

43. See ALLIANCE FOR THE CHESAPEAKE BAY, *supra* note 22, at 5.

44. *Id.*

45. *Id.*

46. *Id.*

47. See ZYGMUNT J.B. PLATER, ENVIRONMENTAL LAW AND POLICY: NATURE, LAW, AND SOCIETY 947 (1992).

pollution, a task for which riparian forest buffers are aptly suited,<sup>48</sup> generally involves land use restrictions that the federal government is reluctant to impose.<sup>49</sup> This reluctance to confront private land use issues is a direct result of the federal government's deference to the traditional state police power to regulate private land use to promote public, health, safety, and welfare.<sup>50</sup>

The Tenth Amendment to the United States Constitution specifically provides that "[t]he powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people."<sup>51</sup> Through the Tenth Amendment, the states retain the police power over private land use. Only rarely will Congress use other constitutional powers, such as the power of the Commerce Clause,<sup>52</sup> to regulate land use.<sup>53</sup>

#### A. Federal Laws

Federal statutes which address the use of land bordering water bodies and nonpoint source pollution include the Coastal Zone Management Act (CZMA)<sup>54</sup> and the Federal Water Pollution Control Act, commonly referred to as the Clean Water Act (CWA).<sup>55</sup> The CZMA calls for state land use management measures to control nonpoint source water pollution;<sup>56</sup> however, the Act applies to littoral land<sup>57</sup> rather than riparian land.<sup>58</sup> Although the CWA addresses nonpoint source management programs,<sup>59</sup> nonpoint source pollution is not directly prohibited by

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48. See ALLIANCE FOR THE CHESAPEAKE BAY, *supra* note 22, at 3; WELSCH, *supra* note 2, at 1.

49. See ZYGMUNT J.B. PLATER, ENVIRONMENTAL LAW AND POLICY: NATURE, LAW, AND SOCIETY 949 (1992).

50. See *id.*

51. U.S. CONST. amend. X.

52. U.S. CONST. art. I, § 8.

53. See Plater, *supra* note 47, at 949.

54. 16 U.S.C. §§ 1451-1465 (1994) (providing for the protection and restoration of the Nation's coastal zones).

55. 33 U.S.C. §§ 1251-1387 (1994) (providing for the protection and restoration of the Nation's waters).

56. See 16 U.S.C. § 1455(d)(1).

57. Littoral land is land that is along the shores of seas and great lakes. See BLACK'S LAW DICTIONARY 934 (6th ed. 1990).

58. See 16 U.S.C. §§ 1451-1453. The coastal zone in Pennsylvania is that part of the state bordering on Lake Erie. See *id.* § 1453.

59. See 33 U.S.C. § 1329.



the Act.<sup>60</sup>

The CWA indirectly regulates riparian buffers by requiring that a permit be obtained before fill material is placed into the waters of the United States.<sup>61</sup> Unauthorized placement of fill material into the waters of the United States is prohibited by Section 404 of the Act.<sup>62</sup> Considering their very nature, some riparian buffers may be wholly or partly classified as wetlands. Most wetlands<sup>63</sup> may be considered waters of the United States and, therefore, they are regulated by the CWA.<sup>64</sup>

### B. Pennsylvania Laws

1. *The Environmental Rights Amendment.*—The Environmental Rights Amendment to the Pennsylvania Constitution states:

The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.<sup>65</sup>

Application of this amendment's provisions is a responsibility equally shared by the Department of Environmental Protection ("DEP")<sup>66</sup> and the municipalities within the Commonwealth.<sup>67</sup>

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60. See *Natural Resources Defense Council v. United States Envtl. Protection Agency*, 915 F.2d 1314, 1316 (9th Cir. 1990) (noting the discharge of pollutants from nonpoint sources is not directly prohibited by the Clean Water Act).

61. See 33 U.S.C. § 1344(a) (providing for permits for the disposal of fill material into the navigable waters of the United States).

62. See *id.*

63. A wetland is defined as land that has a predominance of hydric soils [soil saturated long enough to develop an anaerobic condition that supports hydrophytic vegetation (vegetation which grows in water or oxygen deficient substrata)] and that is inundated or saturated by surface or groundwater long enough to support a prevalence of hydrophytic vegetation. 16 U.S.C. § 3902(5) (1997).

64. See generally George K. Chamberlin, Annotation, *What are "Navigable Waters" Subject to the Provisions of the Federal Water Pollution Control Act, as Amended* (33 USCS §§ 1251 *et seq.*), 52 A.L.R. FED. 788 (1981).

65. PA. CONST. art. I, § 27.

66. The Pennsylvania Department of Environmental Protection ("DEP") was formerly known as the Pennsylvania Department of Environmental Resources ("DER"). See PA. STAT. ANN. tit. 71, § 1340.101 (West Supp. 1997) (changing the name of the Department of Environmental Resources to the Department of Environmental Protection).

67. See ALLIANCE FOR THE CHESAPEAKE BAY, *supra* note 1, at 3. Municipalities generally include cities, boroughs, incorporated towns, townships, and counties.

Municipalities should consider the values stated in the Environmental Rights Amendment when formulating land use control strategies, adopting land use regulations, and approving land developments.<sup>68</sup>

The first sentence of the Environmental Rights Amendment grants a public right to the listed environmental values.<sup>69</sup> The second and third sentences establish the Commonwealth as the trustee of public natural resources.<sup>70</sup> Because all agencies of the Commonwealth, both state and local, share in the trusteeship responsibilities; boroughs, townships, counties, and cities are all trustees of the public natural resources.<sup>71</sup>

The Environmental Rights Amendment may be considered “a self-executing provision in accordance with the doctrines of public trust.”<sup>72</sup> It “represents a proper exercise of state powers within the scope of the Ninth Amendment to the United States Constitution.”<sup>73</sup> The amendment promotes controlled development in the Commonwealth by allowing for the normal use of property while constitutionally affixing a concept of public trust to the management of natural resources.<sup>74</sup>

2. *The Clean Streams Law.*—Pennsylvania’s Clean Streams Law<sup>75</sup> is intended to prevent pollution<sup>76</sup> of Commonwealth waters<sup>77</sup> while restoring polluted waters to an unpolluted condition.<sup>78</sup>

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See PA. STAT. ANN. tit. 53, § 10107(a) (West 1997).

68. See Cyril A. Fox, *Environmental Protection - A Constitutional Limitation on the Land Use Control Powers of Pennsylvania Municipalities*, 36 U. PITT. L. REV. 255, 256 (1974).

69. *Community College of Delaware County v. Fox*, 342 A.2d 468, 473 (Pa. Commw. Ct. 1975) (defining the scope of authority of the Department of Environmental Resources).

70. See *id.* at 474.

71. See *id.* at 481-83.

72. *Payne v. Kassab*, 312 A.2d 86, 97 (Pa. Commw. Ct. 1973) (interpreting Environmental Rights Amendment in an action to enjoin a street widening project which would take part of a public park). See also *Community College of Delaware County*, 342 A.2d at 474.

73. *Payne*, 312 A.2d at 97.

74. See *id.* at 94.

75. PA. STAT. ANN. tit. 35, §§ 691.1-691.1001 (West 1993).

76. Pollution is defined, in part, as contamination of the waters of the Commonwealth such as will be injurious to public health, safety, or wildlife. Pollution includes alteration of the physical, chemical or biological properties of the waters or a change in temperature, taste, color or odor. See *id.* at § 691.1

77. Waters of the Commonwealth include any and all rivers, streams, creeks, water courses, lakes, springs, and all other natural and artificial bodies of surface and ground water within or on the boundaries of the Commonwealth. See *id.*

78. See *Commonwealth Dep’t of Env’tl. Resources v. Borough of Carlisle*, 330 A.2d 293, 298 (Pa. Commw. Ct. 1974) (interpreting the Clean Streams Law in

This objective "requires a comprehensive program of watershed management and control."<sup>79</sup> The Clean Streams Law declares the discharge of pollutants into the waters of the Commonwealth to be a public nuisance.<sup>80</sup>

DEP is authorized to regulate the discharge of pollutants based on the declared policies of the Clean Streams Law.<sup>81</sup> DEP, however, must merely provide effective pollution control to meet watershed management needs as a whole.<sup>82</sup> There is no requirement that the Department evaluate local planning decisions or decide the best uses of a watershed.<sup>83</sup> The principal conduct addressed by the Clean Streams Law is the discharge of pollutants into surface waters.<sup>84</sup>

3. *The Dam Safety and Encroachments Act.*—The Dam Safety and Encroachments Act<sup>85</sup> provides DEP with jurisdiction over the regulation of stream encroachments<sup>86</sup> and water obstructions.<sup>87</sup> The Act is intended to protect natural resources and the environmental rights secured by the Pennsylvania Constitution by assuring the proper planning, construction, and maintenance of stream encroachments and water obstructions.<sup>88</sup> DEP is required to issue permits for activities in watercourses, wetlands, and floodways including alteration of streambanks.<sup>89</sup> Although generally intend-

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affirming the Environmental Hearing Board decision to allow sewage discharge permits).

79. Title 35, § 691.4.

80. Title 35, § 691.3. At common law, a public nuisance is a nuisance that offends the public at large or a segment of that public, while a private nuisance offends only a particular person or persons. See *Commonwealth v. Barnes & Tucker Co.*, 303 A.2d 544, 567 (Pa. Commw. Ct. 1973) (holding that acid mine water discharge to a stream did not constitute a public nuisance because the discharge was caused by sources of nature; the stream was already polluted; and the stream was not used for public purposes).

81. See PA. STAT. ANN. tit. 35, §§ 691.4-691.5.

82. See *Community College of Delaware County*, 342 A.2d at 480.

83. See *id.* at 480.

84. See *Commonwealth v. Harmar Coal Co.*, 306 A.2d 308, 315 (Pa. 1973) (holding that a coal company may be required to treat acid mine drainage under the Clean Streams Law).

85. See PA. STAT. ANN. tit. 32, §§ 693.1-693.27 (West 1997).

86. A stream encroachment is any activity which changes, expands, or diminishes the course and flow of any water course, floodway, or body of water. See *id.* at § 693.3.

87. A water obstruction includes any structure located in, along, across, or projecting into any watercourse, floodway, or body of water. See *id.*

88. See title 32, § 693.2.

89. See ALLIANCE FOR THE CHESAPEAKE BAY, *supra* note 1, at 3.

ed to prevent the unreasonable interference with water flow,<sup>90</sup> this Act indirectly protects those riparian forest buffers that are considered wetlands or floodways.

4. *Other Statutes.*—Other Pennsylvania statutes with provisions related to the protection of riparian forest buffers include, but are not limited to, the Flood Plain Management Act<sup>91</sup> and the Storm Water Management Act.<sup>92</sup> The Flood Plain Management Act provides for local municipal regulation of development in flood plains that is consistent with sound land use practices.<sup>93</sup> Flood plains are to be managed to preserve and restore the efficiency and water flow capacity of streams.<sup>94</sup> The Storm Water Management Act provides for local municipal management of storm water<sup>95</sup> runoff in each watershed<sup>96</sup> so as to preserve and restore the flood carrying capacity of Pennsylvania's streams.<sup>97</sup> Under the Act, each county must develop a watershed storm water plan which prevents development or other activity in each municipality within a watershed from adversely affecting the health, safety, and welfare of another municipality.<sup>98</sup>

5. *The Municipalities Planning Code.*—The Pennsylvania Municipalities Planning Code ("MPC")<sup>99</sup> authorizes municipalities to regulate local land planning, zoning, and real estate development.<sup>100</sup> Under the MPC, land may be designated for appropriate uses.<sup>101</sup> Although the MPC does not explicitly require municipalities to consider the environmental values set forth in the Environmental Rights Amendment,<sup>102</sup> its legislative purpose<sup>103</sup> permits

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90. See title 32, § 693.2.

91. See PA. STAT. ANN. tit. 32, §§ 679.101-679.601 (West 1997).

92. See PA. STAT. ANN. tit. 32, §§ 680.1-680.17 (West 1997).

93. See title 32, § 679.103.

94. *Id.*

95. The Act defines "storm water" as "[d]rainage runoff from the surface of land resulting from precipitation or snow or ice melt." See title 32, § 680.4.

96. The Act defines a "watershed" as "[t]he entire region or area drained by a river or other body of water, whether natural or artificial." See *id.*

97. See title 32, § 680.3.

98. See title 32, § 680.5.

99. PA. STAT. ANN. tit. 53, §§ 10101-11202 (West 1997).

100. See Thomas M. Schmidt, *Laws Which Regulate Land Use in Pennsylvania*, 46 PA. B.A.Q. 417, 421 (1975).

101. See ALLIANCE FOR THE CHESAPEAKE BAY, *supra* note 1, at 2.

102. PA. CONST. art. I, § 27.

103. See title 53, § 10105. The purpose of the Municipalities Planning Code is to protect and promote public health, safety and general welfare by guiding development and growth. See *id.*

municipalities to address environmental protection through the adoption of land use regulations.<sup>104</sup>

The two principal means by which municipalities may regulate land use are subdivision and land development ordinances<sup>105</sup> and zoning ordinances.<sup>106</sup> “[Land use ordinances] are promulgated under [a municipality’s] police power, and as such must bear a relationship to protection of the health, safety and general welfare of the community.”<sup>107</sup> Land use ordinances arguably involve a “taking” in that they restrict owners from using their property as they please.<sup>108</sup> Such takings, however, are not invalid and do not entitle property owners to compensation or other relief unless the owners’ rights have been unreasonably restricted.<sup>109</sup>

Section 603 of the MPC authorizes municipal zoning ordinances to regulate uses of land, watercourses, and other bodies of water and to protect and preserve natural resources.<sup>110</sup> This authorization includes riparian zones and wetlands.<sup>111</sup> The authorized purposes of zoning ordinances include promotion, protection and facilitation of the public health, safety and welfare as well as the preservation of historic and natural resources including forests, wetlands and floodplains.<sup>112</sup>

#### *D. Municipal Riparian Buffer Ordinances*

Pennsylvania municipalities are beginning to adopt municipal riparian buffer regulations or similar land development and zoning ordinances. For example, Montgomery County has developed a

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104. See Fox, *supra* note 68, at 256-257.

105. See title 53, § 10501. Each municipality may regulate subdivisions and land development by enacting a subdivision and land development ordinance. See *id.* The Act generally defines a “subdivision” as the division of a parcel of land into two or more parcels. See title 53, § 10107. “Land development” includes the improvement of one lot or two or more contiguous lots involving the construction of facilities or allocation of common space. See *id.*

106. See *id.* at § 10601. Each municipality may enact zoning ordinances to accomplish any purpose authorized by the MPC. See *id.*

107. *Sanko v. Rapho Township*, 293 A.2d 141, 143 (Pa. Commw. Ct. 1972) (finding a trap shooting range in a rural area to not be dangerous or offensive).

108. See *Robin Corp. v. Board of Supervisors of Lower Paxton Township*, 332 A.2d 841, 847 (Pa. Commw. Ct. 1975) (upholding zoning ordinance disallowing apartment houses in particular areas).

109. See *id.*

110. Title 53, § 10603.

111. See ALLIANCE FOR THE CHESAPEAKE BAY, *supra* note 1, at 3.

112. See title 53, § 10604.

countywide model for riparian corridor conservation districts.<sup>113</sup> Lycoming County has an aquatic resource buffer ordinance.<sup>114</sup> West Brandywine Township, in Chester County, has produced a final draft of a woodlands and riparian resource protection ordinance.<sup>115</sup> Kennett Township, also in Chester County, has fully adopted riparian buffer regulations.<sup>116</sup>

Kennett Township's riparian buffer regulations are intended to protect streams by modifying the location of development in relation to water resources.<sup>117</sup> The regulations permit only timber harvesting, vegetation management, agriculture and state regulated activities within specified buffer areas.<sup>118</sup> The regulations principally apply to property under application for subdivision or land development.<sup>119</sup> Existing customary land uses are minimally impacted by the regulations and landowners may obtain variances.<sup>120</sup>

1. *The Kennett Township Zoning Ordinance.*—Section 1414 of the Kennett Township Zoning Ordinance provides for the “conservation of woodland and riparian resources . . . through resource identification, management planning, and development limitations.”<sup>121</sup> The ordinance defines a riparian buffer as “[a]ny area comprised of one or more of the following: A. Any area within seventy-five (75) feet of any stream bank; B. Any wetlands and any area within fifteen (15) feet of any wetland; C. Any area of hydric soil.”<sup>122</sup> A woodland is defined as “[a] tree mass or plant community in which tree species are dominant or co-dominant, the

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113. See Montgomery County, Pa., Countywide Model, Riparian Corridor Conservation District (1995) (providing for the restoration and conservation of riparian corridors).

114. See Lycoming County, Pa., Lycoming County Zoning Ordinance, § 5220(D)(1) (Jan. 1, 1996) (prohibiting disturbance of aquatic resource buffers in all developments unless otherwise permitted).

115. Interview with John D. Snook, *supra* note 12.

116. See Kennett Township Ordinance 50; Kennett Township Ordinance 46.

117. See *Kennett Township Proposes Progressive Riparian Buffer Regulations*, *supra* note 14, at 4.

118. See *id.*

119. See *id.*

120. See *id.*

121. Kennett Township Ordinance 50, § 1414.

122. *Id.* § 201. “Wetlands are considered to be all lands regulated as wetlands by the Pennsylvania Department of Environmental Protection and/or the U.S. Army Corps of Engineers.” *Id.* Hydric soils include “[a]ny soil inventoried or described as hydric or as a soil with hydric inclusions according to the *Soil Survey of Chester and Delaware Counties, Pennsylvania*, or other information provided by the U.S. Soil Conservation Service.” *Id.*

branches of the trees form a complete, or nearly complete, aerial canopy.”<sup>123</sup>

Developers who are required to submit an Open Space Management Plan<sup>124</sup> under the Kennett Township Zoning Ordinance<sup>125</sup> or the Kennett Township Subdivision and Land Development Ordinance<sup>126</sup> must provide for the long-term management of any riparian buffer or woodland located within their tracts of development.<sup>127</sup> Developers are also encouraged to obtain woodland management assistance from the Pennsylvania Bureau of Forestry.<sup>128</sup>

Building permit applicants in Kennett Township must comply with the riparian buffer and woodland conservation provisions of the Kennett Township Subdivision and Land Development Ordinance.<sup>129</sup> The Township Zoning Officer may nevertheless issue a building permit regardless of the extent of an applicant’s compliance with these provisions if the proposed riparian intrusion or woodland disturbance “is limited to the minimum practicable extent necessary to accommodate the proposed building activity.”<sup>130</sup>

2. *The Kennett Township Subdivision and Land Development Ordinance.*—Section 516 of the Kennett Township Subdivision and Land Development Ordinance prohibits land disturbance within any riparian buffer and prohibits woodland disturbance or any other land disturbance within fifteen feet of the outermost limit of any wetland or streambank.<sup>131</sup> “Riparian buffer” has the same definition under Section 204 of the Kennett Township Subdivision and Land Development Ordinance as under Section 201 of the Kennett Township Zoning Ordinance.<sup>132</sup> A land disturbance is “any activity which exposes soils, alters topography and/or alters vegetation, except for removal of hazardous or invasive alien

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123. *Id.*

124. An open space management plan provides for the long-term management of private, public, and common open space. *See id.*

125. Kennett Township Ordinance 50.

126. Kennett Township Ordinance 46.

127. *See* Kennett Township Ordinance 50, § 1414(B).

128. *See id.*

129. *See* Kennett Township Ordinance 46, §§ 516-517.

130. Kennett Township Ordinance 50, § 1414(D).

131. Kennett Township Ordinance 46, § 516.

132. *See supra* text accompanying note 123. *Compare* Kennett Township Ordinance 50, § 201 *with* Kennett Township Ordinance 46, § 204.

vegetation.”<sup>133</sup> A woodland . . . [or] disturbance is “any activity which alters the existing structure of a woodland, hedgerow . . . [or] any activity which constitutes a land disturbance within a woodland or hedgerow.”<sup>134</sup>

Permitted exceptions to the prohibition against land disturbance include approved timber harvesting, approved vegetation management, customary agricultural practices, and regulated activities permitted by the Commonwealth.<sup>135</sup> Exceptions to the prohibitions against woodland disturbance within fifteen feet of any wetland or streambank include provisions for unpaved trail access, selective removal of hazardous or invasive vegetation, and regulated activities permitted by the Commonwealth.<sup>136</sup>

Section 516 of the Kennett Township Subdivision and Land Development Ordinance “is intended to comprehensively address all water resource protection benefits provided by riparian buffer areas.”<sup>137</sup> The intent is “to modify the location of development in relation to specified water resource areas but not to modify [the] overall intensity [of development].”<sup>138</sup>

If a landowner demonstrates that strict adherence to the riparian buffer provisions will render a property unusable or unsuitable for development, the township board of supervisors may waive compliance.<sup>139</sup> In waiving compliance, the Board of Supervisors may require that land disturbance be limited to the minimum practicable extent necessary to accommodate lawful use of the property.<sup>140</sup> The Board of Supervisors may also require alternative means to achieve the specified riparian buffer conservation objectives.<sup>141</sup>

#### IV. Regulatory Takings Doctrine

##### A. *United States Supreme Court Regulatory Takings Doctrine*

The Fifth Amendment to the United States Constitution provides that private property shall not “be taken for public use,

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133. Kennett Township Ordinance 46, § 204.

134. *Id.*

135. *See* Kennett Township Ordinance 46, § 516.

136. *See id.*

137. *Id.*

138. *Id.*

139. *See* Kennett Township Ordinance 46, § 516.

140. *See id.*

141. *See id.*



without just compensation.”<sup>142</sup> Furthermore, the Fourteenth Amendment provides that no state shall “deprive any person of . . . property, without due process of law.”<sup>143</sup> Early Supreme Court decisions held that a physical occupation by the government was required before the property owner was entitled to compensation.<sup>144</sup> Within this view, government regulation could restrict the use of private property without compensation to the owner.<sup>145</sup>

In 1922, the Court recognized that a regulation that goes too far in restricting the use of private property might constitute a taking requiring just compensation.<sup>146</sup> Since 1922, a series of Supreme Court interpretations of the Fifth Amendment has resulted in the basic notion that the government, under its regulatory authority, cannot take away the “core economic value” of property while leaving the owner with a legal but essentially worthless title.<sup>147</sup>

To determine whether a taking has occurred, courts must balance the government interest in regulating property to promote the public health, safety, and welfare against the individual right to use private property as desired.<sup>148</sup> This balancing is most difficult

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142. U.S. CONST. amend. V. The Fifth Amendment Takings Clause is made applicable to the states through the Fourteenth Amendment. See *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 122 (1978) (characterizing the issue as to whether a city ordinance restricting development of historic property effected a taking of private property for public use).

143. U.S. CONST. amend. XIV, § 1.

144. See generally *Gibson v. United States*, 166 U.S. 269 (1897) (denying compensation to a riparian landowner whose access to a dock was restricted by the government construction of a dike); *Northern Transp. Co. of Ohio v. City of Chicago*, 99 U.S. 336 (1879) (denying compensation to a property owner whose access to its premises was obstructed by a city construction project).

145. See generally *Hadacheck v. Sebastian*, 239 U.S. 394 (1915) (upholding law prohibiting operation of a brick yard); *Mugler v. Kansas*, 123 U.S. 623 (1887) (upholding law prohibiting use of building as a brewery).

146. See *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393 (1922). *Pennsylvania Coal* is considered the foundation case for the proposition that state regulation of private property use may result in a taking if the regulation goes too far. See also *Penn Cent.*, 438 U.S. at 127.

147. See *Hendler v. United States*, 952 F.2d 1364, 1373 (Fed. Cir. 1991) (summarizing Supreme Court takings jurisprudence in deciding that government entry onto private property to install groundwater monitoring wells amounted to a taking). For a brief and straightforward summary of takings jurisprudence, see CHRISTOPHER J. DUERKSEN, RICHARD J. RODDEWIG, AMERICAN RESOURCES INFORMATION NETWORK, TAKINGS LAW IN PLAIN ENGLISH (1994).

148. See generally Craig R. Habricht, *Dolan v. City of Tigard: Taking a Closer Look at Regulatory Takings*, 45 CATH. U. L. REV. 221 (1995); Maureen Straub Kordesh, “I Will Build My House With Sticks”: *The Splintering of Property Interests Under the Fifth Amendment May Be Hazardous to Private Property*, 20 HARV. ENVTL. L. REV. 397 (1996).

in the context of regulatory takings<sup>149</sup> as opposed to takings by physical occupation or appropriation.<sup>150</sup> At odds are property owners' constitutional rights that protect autonomy, fairness, and private incentive<sup>151</sup> and the governmental police power to regulate the use of private property for the protection of the public health, safety, and welfare.<sup>152</sup>

Three principal Supreme Court decisions in the modern era have developed the means by which to balance public interests and private property rights under a regulatory takings analysis.<sup>153</sup> In *Penn Central Transportation Co. v. New York City*,<sup>154</sup> the Court identified three factors affecting this balance: (1) the character of the government action; (2) the extent of interference with distinct investment-backed expectations of the property owner; and (3) the economic impact of the regulation upon the property owner.<sup>155</sup> Next, in *Agins v. City of Tiburon*,<sup>156</sup> the Court determined that a regulatory taking exists if the government action does not substantially advance a legitimate state interest or if it denies landowners

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149. A regulatory taking generally occurs when the government does not actually occupy or acquire title but rather restricts the use of property to the point where the owners are effectively denied all or most of their interest in the property. See generally Richard C. Ausness, *Regulatory Takings and Wetland Protection in the Post-Lucas Era*, 30 LAND & WATER L. REV. 349, 369 (1995); Habricht, *supra* note 148, at 223 n.4.

150. See Kordesh, *supra* note 148, at 397. Through the power of eminent domain, the government may require a landowner to deed over an interest in private property in exchange for the fair market value of the property. See *id.*

151. See generally *Penn Cent.*, 438 U.S. at 123 (discussing Fifth Amendment property rights).

152. See generally *Goldblatt v. Town of Hempstead*, 369 U.S. 590, 592-593 (1962) (considering whether a zoning ordinance effected a taking). "A prohibition simply upon the use of property for purposes that are declared, by valid legislation, to be injurious to the health, morals, or safety of the community, cannot, in any sense, be deemed a taking." *Id.*

153. A more thorough discussion of the Supreme Court regulatory takings jurisprudence in the context of riparian area and wetland protection may be found in David P. Hutchinson, *A Setback for the Rivers of Massachusetts? An Application of Regulatory Takings Doctrine to the Watershed Protection Act and the Massachusetts River Protection Act*, 73 B.U. L. REV. 237 (1993); also in Ausness, *supra* note 149.

154. 438 U.S. 104 (1978). "While the decision involved a challenge to a landmark preservation ordinance, the analysis of the Court is equally relevant to a variety of public interest laws, including . . . zoning and land use regulations." DUERKSEN, *supra* note 147, at 9.

155. See *Penn Cent.*, 438 U.S. at 124-25.

156. 447 U.S. 225 (1980). In this case, the claimant challenged a zoning ordinance which limited the number of residential structures that could be constructed on a five acre lot. See *id.* at 258. The Court held that no taking had occurred. See *id.* at 262.

all economically viable use of their property.<sup>157</sup> Most recently, in *Lucas v. South Carolina Coastal Council*,<sup>158</sup> the Court declared that when a government regulation denies landowners all economic use of their property, compensation can be avoided only by demonstrating that the prohibited use was not a recognized property right.<sup>159</sup>

Under the *Penn Central* balancing approach, the inquiry into the character of the government action focuses on whether there is a physical invasion of private property or whether the action is a legitimate form of regulation.<sup>160</sup> Regulations that impose permanent physical invasions are considered per se takings.<sup>161</sup> Traditionally, regulations that prevent harm to the public or protect a public interest in quality of life and the environment are considered legitimate exercises of the police power that do not constitute a taking.<sup>162</sup>

Consideration of investment-backed expectations under the *Penn Central* approach is a means to limit takings compensation to landowners who bought property in reliance on a state of affairs that did not include the foreseeable imposition of government regulation.<sup>163</sup> The assumption here is that a landowner's plans should not be deterred by subsequent government regulation unless

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157. See *id.* at 260.

158. 505 U.S. 1003 (1992). This case concerned shoreline development regulations that made construction on the plaintiff's beach-front property difficult, if not impossible. See *id.* at 1007-1009. The Court elaborated on its taking jurisprudence and remanded the case for further proceedings. See *id.* at 1010-1031.

159. See *id.* at 1027.

160. See Ausness, *supra* note 149, at 370-71.

161. See Hutchinson, *supra* note 153, at 249. In *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419 (1982), the Court invalidated a New York statute that required landowners to allow cable television companies to install equipment on their property. See *id.* at 426. The Court held this act to be a physical invasion. See *id.* at 438. See also *Kaiser Aetna v. United States*, 444 U.S. 164, 178-80 (1979) (finding a taking where the government required public access to a private pond).

162. See Hutchinson, *supra* note 153, at 249-50. In *Penn Cent.*, the Court found "that a use restriction on real property may constitute a taking if not reasonably necessary to the effectuation of a substantial public purpose." 438 U.S. at 127. "One of the State's primary ways of preserving the public weal is restricting the use individuals can make of their property." *Keystone Bituminous Coal Ass'n v. DeBenedictis*, 480 U.S. 470, 491 (1987) (upholding a Pennsylvania statute prohibiting coal mining that causes subsidence).

163. See *Loveladies Harbor, Inc. v. United States*, 28 F.3d 1171, 1177 (Fed. Cir. 1994) (finding a taking when the federal government denied a development company a permit that would have allowed the company to fill wetlands).

there is a compelling need for the regulation.<sup>164</sup>

The third factor under the *Penn Central* analysis is the economic impact of the regulation upon the property owner. A severe economic burden on a property owner may result in a taking.<sup>165</sup> The analysis requires a comparison between the value that has been taken from the property with the value that remains in the property.<sup>166</sup>

The *Agins* two-factor test moves away from a balancing approach to consider in separate inquiries if there is a legitimate state interest or if the landowner is deprived of all economically viable property use.<sup>167</sup> The legitimate state interest prong is related to the *Penn Central* character of the government action factor; the economically viable prong is related to the *Penn Central* economic impact factor.<sup>168</sup> Each prong of the *Agins* analysis may by itself be sufficient to sustain a takings claim.<sup>169</sup>

In *Lucas*, the Court set forth a categorical rule that establishes a total taking where government action involves physical invasion or appropriation of private property or where the action denies the landowner all economically beneficial or productive use<sup>170</sup> of private property. The Court limited the traditional nuisance exception<sup>171</sup> to a total taking by finding that when a regulation denies all economic use of property, the action will be considered

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164. See Ausness, *supra* note 149, at 371. In *Penn Cent.* the Court determined that the government regulation permitted the landowner to use its property "precisely as it has been used for the past 65 years" and to "not only profit from the [property] but also to obtain a reasonable return on its investment" 438 U.S. at 136.

165. See Ausness, *supra* note 149, at 372.

166. See *Keystone*, 480 U.S. at 497. Traditionally, the Court has found a significant reduction in value alone does not constitute a taking. See generally *Euclid v. Ambler Realty Co.*, 272 U.S. 365, 397 (1926) (finding no taking where zoning ordinance caused 75% diminution in value); *Hadacheck*, 239 U.S. at 413 (finding no taking where zoning ordinance caused 87.5% diminution in value).

167. See Ausness, *supra* note 149, at 373.

168. See *Hutchinson*, *supra* note 153, at 247-53. The *Agins* Court found that the zoning ordinance substantially advanced legitimate goals by protecting the public against uncontrolled development. *Agins*, 447 U.S. at 261. The term "economically viable use" originated in a footnote in the *Penn Cent.* case. See *Penn Cent.*, 438 U.S. 138 n.36.

169. See Ausness, *supra* note 149, at 373.

170. See *Lucas*, 505 U.S. at 1015. "[T]otal deprivation of beneficial use is, from the landowner's point of view, the equivalent of a physical appropriation." *Id.* at 1017.

171. The nuisance exception recognizes that "uses of property which amount to a nuisance may be forbidden despite a complete deprivation of economic use." *DUERKSEN*, *supra* note 147, at 14.

a taking unless the prohibited use is one that is barred by existing principles of property or nuisance law.<sup>172</sup> The total taking inquiry, combined with the nuisance exception, requires analysis of "the degree of harm . . . posed by the claimant's proposed activities, the social value of the claimant's activities and their suitability to the locality in question, and the relative ease with which the alleged harm can be avoided."<sup>173</sup>

An additional consideration in the takings analysis is the definition of the property interest.<sup>174</sup> In determining the diminution in property value caused by a government action, the takings analysis has traditionally focused on the claimant's property as a whole rather than discrete segments.<sup>175</sup> Recently, the Court's perspective has begun to change to allow the relevant property interest for analysis to be narrowly defined to include just the portion of land subject to the government action.<sup>176</sup> The Federal Circuit Court of Appeals has advanced this perspective and narrowly focused the takings analysis on the smaller parcel of land subject to regulation rather than the entire contiguous property.<sup>177</sup>

To reach a federal court, a regulatory taking claim brought against a state entity must be ready for judicial review under prudential ripeness principles.<sup>178</sup> Two independent hurdles must

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172. See *Lucas*, 505 U.S. at 1026-30. "Where the State seeks to sustain regulation that deprives land of all economically beneficial use, we think it may resist compensation only if the logically antecedent inquiry into the nature of the owner's estate shows that the proscribed use [property] interests were not part of his title to begin with." *Id.* at 1027. See also Hutchinson, *supra* note 153, at 254-60; Ausness, *supra* note 149, at 389-90.

173. *Lucas*, 505 U.S. at 1030-31.

174. See generally Hutchinson, *supra* note 153, at 252-53, 257-58; Ausness, *supra* note 149, at 372.

175. See *Penn Cent.*, 439 U.S. at 130. "'Taking' jurisprudence does not divide a single parcel into discrete segments and attempt to determine whether rights in a particular segment have been entirely abrogated." *Id.* See also *Keystone*, 480 U.S. at 497. "[w]here an owner possesses a full bundle of property rights, the destruction of one strand of the bundle is not a taking because the aggregate bundle must be viewed in its entirety." *Id.* at 497 (quoting *Andrus v. Allard*, 444 U.S. 51, 65-66 (1979)).

176. See *Lucas*, 505 U.S. at 1016 n.7. "When, for example, a regulation requires a developer to leave 90% of a rural tract in its natural state, it is unclear whether we would analyze the situation as one in which the owner has been deprived of all economically beneficial use of the burdened portion of the tract, or one in which the owner has suffered a mere diminution in value of the tract as a whole." *Id.*

177. See *Loveladies Harbor*, 28 F.3d 1180-82 (finding a denial of all economically viable use of 12.5 acres of wetland out of a 250 acre tract a taking).

178. See *Suitum v. Tahoe Reg'l Planning Agency*, 117 S.Ct. 1659, 1664 (1997) (finding landowner's regulatory taking claim ripe for adjudication).

be cleared before a claim is ripe for judicial review.<sup>179</sup> First, the claimant must receive a final decision regarding the application of the challenged regulations to the property at issue.<sup>180</sup> This decision must come from the government entity implementing the regulations.<sup>181</sup> Second, compensation must have been sought through the applicable state procedures.<sup>182</sup>

*B. Pennsylvania Supreme Court Regulatory Takings Doctrine*

The Pennsylvania Supreme Court recognizes that the Pennsylvania Constitution provides greater rights and protection to Pennsylvania residents than are provided by the United States Constitution.<sup>183</sup> As expressed by the court, “each state has the power to provide broader standards and go beyond the minimum [constitutional] floor which is established by the federal Constitution’.”<sup>184</sup> Therefore, when considering the validity of a government action, the Pennsylvania Supreme Court finds that “it is essential that courts in Pennsylvania undertake an independent analysis [of the issue] under the Pennsylvania Constitution’.”<sup>185</sup> Article I of the Pennsylvania Constitution<sup>186</sup> protects residents of

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179. *See id.*

180. *See id.* “The focus of the ‘final decision’ inquiry is on ascertaining the extent of the governmental restriction on land use, not what the government has given the landowner in exchange for that restriction.” *Id.* at 1671 (Scalia, J., concurring).

181. *See id.* at 1664.

182. *See id.* “If a State provides an adequate procedure for seeking just compensation, the property owner cannot claim a violation of the Just Compensation Clause until it has used the procedure and been denied just compensation’.” *Id.* (quoting *Williamson County Reg’l Planning Comm’n v. Hamilton Bank of Johnson City*, 473 U.S. 172, 195 (1985)).

183. *See United Artists’ Theater Circuit, Inc. v. Philadelphia*, 635 A.2d 612, 615 (Pa. 1993) (concluding that designation of a privately owned building as a protected historic property is not a taking under the Pennsylvania Constitution).

184. *Commonwealth v. Edmunds*, 586 A.2d 887, 894 (Pa. 1991) (quoting *Commonwealth v. Sell*, 470 A.2d 457, 466 (Pa. 1983)). In *Edmunds*, the Pennsylvania Supreme Court held that the Pennsylvania Constitution did not provide for a good faith exception to the U.S. Supreme Court exclusionary rule that applies when the government violates the constitutional requirement that a search warrant accompany any search and seizure. *Edmunds*, 586 A.2d 885.

185. *United Artists’*, 635 A.2d at 615 (quoting *Edmunds*, 586 A.2d at 895). When analyzing an issue under the Pennsylvania Constitution, at least four factors must be considered: 1) the text of the applicable Pennsylvania constitutional provision; 2) the history of the applicable provision, including Pennsylvania case law; 3) related case law from other states; 4) policy considerations, including issues of state and local concern, and applicability within modern Pennsylvania jurisprudence. *See Edmunds*, 586 A.2d at 895.

186. PA. CONST. art. I.

the Commonwealth from government deprivations of private property or takings for public use.<sup>187</sup> Article I, Section 1 establishes the right of "acquiring, possessing and protecting property"<sup>188</sup> and thereby restricts the police power of the Commonwealth to regulate private property.<sup>189</sup>

The Pennsylvania Supreme Court has found that Article I, Section 1 "protects the right of a property owner to use his or her property in any lawful way that he or she so chooses."<sup>190</sup> Article I, Section 10 provides that "private property [shall not] be taken or applied to public use without authority of law and without just compensation being first made or secured."<sup>191</sup> As noted by the court, "[Section] 10 . . . is a limitation on the Commonwealth's right of eminent domain and its power to appropriate property."<sup>192</sup>

In contrast to the constitutional provisions protecting the private property rights of individuals, the Environmental Rights Amendment<sup>193</sup> establishes a state policy expanding the scope of the police power.<sup>194</sup> The amendment provides for additional rights for all residents of Pennsylvania, collectively. Therefore, it may be used to justify limitations on the individual rights of property owners in order to benefit the public welfare.<sup>195</sup>

There is a distinction between a state's exercise of its police power and its power of eminent domain. The police power of a state is a paramount right involving the regulation of property to promote public health, safety and welfare, including the general

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187. See *United Artists'*, 635 A.2d at 615.

188. PA. CONST. art. I, § 1.

189. See *Best v. Zoning Bd. of Adjustments of Pittsburgh*, 141 A.2d 606, 609 (Pa. 1958) (holding a zoning ordinance creating a single-family residential district to be constitutional as applied to a complainant desiring to create multiple apartments in a single building); *United Artists'*, 625 A.2d at 616. However, "Section 1 of Article I is not a source of additional rights for property owners in Pennsylvania." *Id.* at 619-20 (equating the requirements of Section 1 of Article I to the requirements of the Fourteenth Amendment to the United States Constitution).

190. *PA Northwestern Distrib., Inc. v. Zoning Hearing Bd. of Moon Township*, 584 A.2d 1372, 1376 (Pa. 1991). However, "[i]n Pennsylvania, all property is held in subordination to the right of its reasonable regulation by the government, which regulation is clearly necessary to preserve the health, safety, morals or general welfare of the people." *Id.* at 1374.

191. PA. CONST. art I, § 10.

192. *Best*, 141 A.2d at 609 n.5.

193. PA. CONST. art I, § 27. See *infra* text part III.

194. See *United Artists'*, 635 A.2d at 620 (finding a historic preservation ordinance valid because it was consistent with the Environmental Rights Amendment which recognizes a state mandate that all people of Pennsylvania have a right to the preservation of natural and historic resources).

195. See *id.*

public prosperity;<sup>196</sup> eminent domain is the power of the state to take private property for public use.<sup>197</sup>

Whereas an exercise of the police power requires no compensation to the property owner unless it unreasonably restricts or substantially prohibits the lawful use and enjoyment of the property,<sup>198</sup> compensation must be provided by the state for private property taken, injured or destroyed through eminent domain.<sup>199</sup>

By its very nature, all regulatory action concerning land use involves some degree of taking because the regulated property owners are not completely free to use their property as they choose.<sup>200</sup> However, such takings do not entitle property owners to compensation unless their rights have been unreasonably or unconstitutionally restricted.<sup>201</sup>

Land use regulations are usually presumed to be valid. The burden to prove otherwise is on the claimant.<sup>202</sup> Although land use regulations are typically in the form of municipal zoning ordinances rather than state statutes, the burden always rests upon the party asserting the invalidity or unconstitutionality of the regulation.<sup>203</sup>

The Pennsylvania Supreme Court finds that “[t]he valid exercise of the zoning power is predicated upon its exercise for a

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196. See generally *id.* at 616; *Redevelopment Auth. of Oil City v. Woodring*, 445 A.2d 724,727 (Pa. 1982) (holding city redevelopment authority’s action requiring a property owner to install underground electrical connections constituted a taking under the power of eminent domain).

197. See *id.* In Pennsylvania, the power and procedures to take private property for public use is specified by the Eminent Domain Code, 26 PA. CONS. STAT. ANN. §§ 1-101 - 1-903 (West 1997).

198. See generally *Andress v. Zoning Bd. of Adjustment of Philadelphia*, 188 A.2d 709, 712 (Pa. 1963) (finding property rights subject to the reasonable and non-discriminatory exercise of the police power); *Commonwealth v. Barnes & Tucker Co.*, 371 A.2d 461, 467-68 (Pa. 1977) (noting that the deprivation of property without compensation cannot prevent the exercise of the police power); *Miller & Son Paving, Inc. v. Wrightstown Township*, 451 A.2d 1002, 1006 (Pa. 1982) (finding reasonable restrictions on property rights are not unconstitutional takings).

199. See *Woodring*, 445 A.2d at 727. Compensation under the Eminent Domain Code, 26 PA. CONS. STAT. ANN. §§ 1-101 - 1-903 (West 1997), does not require an actual taking. See *id.* at 726. A taking may occur and compensation may be due whenever the entity possessing the power of eminent domain substantially deprives a property owner of the use and enjoyment of his property. See *id.* at 726-27.

200. See *Miller & Son*, 451 A.2d at 1006.

201. See *id.*

202. See *id.* See also *PA Northwestern*, 581 A.2d at 1374.

203. See *Best*, 141 A.2d at 610 n.8.



legitimate public purpose.”<sup>204</sup> Valid zoning ordinances therefore must be substantially related to the preservation and protection of the public health, safety, and general welfare.<sup>205</sup> They may not be arbitrary or unreasonable.<sup>206</sup>

In its takings doctrine, the Pennsylvania Supreme Court turns to federal precedent for guidance and typically adopts the analysis used by the federal courts.<sup>207</sup> Relying on lower court decisions and federal case law, the court has formulated a three-part test to determine if government action constitutes a taking requiring just compensation.<sup>208</sup> Under this test, government action does not result in a compensable taking when:

- 1) the interest of the general public, rather than a particular class of persons, requires governmental action;
- 2) the means are necessary to effectuate that purpose;
- 3) the means are not unduly oppressive upon the property holder, considering the economic impact of the regulation, and the extent to which the government physically intrudes upon the property.<sup>209</sup>

Under the third factor of the takings test, the Pennsylvania Supreme Court considers the economic impact of the government action on the property owner as well as the character of the government action.<sup>210</sup> In considering the economic impact, a court should “compare property values before and after the government action, though such a consideration is by no means conclusive.”<sup>211</sup> In regard to the character of the government action, “[t]he greater the extent to which the government interfer-

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204. *Miller & Son*, 451 A.2d at 1006. The power to enact zoning ordinances is granted to municipalities by the Pennsylvania Legislature through the Municipal Planning Code, title 53, §§ 10101-11202. See *infra* p. 7.

205. See *Miller & Son*, 451 A.2d at 1006.

206. See *Best*, 141 A.2d at 612.

207. See generally *United Artists*’, 635 A.2d at 616; *Barnes & Tucker*, 371 A.2d at 465; *Andress* 188 A.2d at 712-13; *Best*, 141 A.2d at 611.

208. See *United Artists*’, 635 A.2d at 618.

209. *United Artists*’, 635 A.2d at 618. This three-part test has its origins in the United States Supreme Court decision *Lawton v. Steele*, 152 U.S. 133 (1894) (upholding New York State’s exercise of its police power by enacting laws to protect and regulate fisheries by prohibiting the use of certain fishing nets and permitting state confiscation of the prohibited nets). The Lawton test for the validity of a government’s actions under its police power is: (1) The public interest requires the action; (2) The action is reasonably necessary to accomplish the public purpose; (3) The action is not unduly oppressive upon individuals. See *id.* at 137.

210. See *United Artists*’, 635 A.2d at 618. The test for determining unduly oppressive government actions has its origins in *Penn Cent.*, 438 U.S. at 104.

211. *United Artists*’, 635 A.2d at 618.

ence with property can be characterized as a physical intrusion, the more likely it is that such interference will be considered an unreasonable exercise of police power.”<sup>212</sup> Under this standard, the Pennsylvania Supreme Court has upheld regulations that prevent the most profitable use of property but do not deprive the owner of all profitable use.<sup>213</sup>

#### V. Application of Regulatory Takings Doctrine to the Kennett Township Riparian Forest Buffer Regulations

The drafters of the Kennett Township riparian buffer regulations<sup>214</sup> intended to create a set of standards that were both environmentally beneficial and legally defensible.<sup>215</sup> The regulations, which primarily apply to property under application for subdivision or land development, are designed to have minimal impact on property currently in use for customary activities.<sup>216</sup> Specific waiver provisions are included in the regulations to ensure the standards are not unduly oppressive on any given parcel of land.<sup>217</sup>

Under the Kennett Township riparian buffer regulations, a person who owns land along a river or stream is essentially barred from constructing any buildings within seventy-five feet of the water course or subdividing the tract into smaller parcels.<sup>218</sup> If application of the regulations is unduly oppressive to a landowner<sup>219</sup> and

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212. *Id.*

213. See generally *United Artists*, 635 A.2d at 618-19 (historic preservation ordinance did not deprive all profitable use of building); *Andress*, 188 A.2d at 716 (zoning ordinance permitted other uses of property than that desired by the property owner); *Best*, 141 A.2d at 613 (restriction on land owner's particular desired use of property did not prevent a profitable use of the property).

214. The Kennett Township riparian buffer regulations were drafted by the staff of the Brandywine Conservancy, Environmental Management Center under contract to Kennett Township. Interview with John D. Snook, *supra* note 12.

215. *Id.* See also *Kennett Township Proposes Progressive Riparian Buffer Regulations*, *supra* note 14 at 4.

216. See Interview with John O. Snook, *supra* note 12.

217. *Id.* See also Kennett Township Ordinance 50, § 1414(D) (allowing for Zoning Officer approval of a building permit for building activity intruding into a riparian buffer if the intrusion is limited to the minimum practicable extent necessary); Kennett Township Ordinance 46, § 516(E) (allowing Board of Supervisors to waive strict compliance with the riparian buffer requirements if they render a parcel of land unusable or unsuitable for development).

218. See Kennett Township Ordinance 50, § 1414; Kennett Township Ordinance 46, § 516.

219. Application of the regulations would presumably be unduly oppressive if they render a parcel of land unusable or unsuitable for development. See generally *id.*

the Township Board of Supervisors does not waive strict compliance with the regulations upon request of the landowner, then a regulatory takings issue may arise if the landowner does not receive compensation. Based on Pennsylvania and Federal takings doctrine, a court may employ the following analysis to resolve such an issue.

*A. The Interest of the General Public Must Require Government Action*

The purpose of the Kennett Township riparian buffer regulations is to conserve and protect streams and other water resources.<sup>220</sup> Through the Environmental Rights Amendment to the Pennsylvania Constitution, Pennsylvanians empowered the Commonwealth and its municipalities to conserve and maintain the natural values of the environment for the benefit of all the people.<sup>221</sup> Furthermore, municipalities may protect natural resources for the public welfare through the enactment of zoning ordinances.<sup>222</sup> A court should thus have no difficulty in finding that the protection of water quality is a legitimate Commonwealth interest for the benefit of public health, safety, and welfare.

*B. The Means Must be Necessary*

The means Kennett Township has chosen to protect streams and riparian areas may be disputed. A landowner challenging the riparian buffer regulations could question whether they “‘substantially advance legitimate state interests’.”<sup>223</sup> For example, in Massachusetts, critics of riparian land use regulations have argued that case-by-case permitting of property owner activities and government purchases of sensitive land are less restrictive alternatives to accomplish water quality protection goals.<sup>224</sup> Arguably, existing state statutes and regulations may sufficiently protect water courses.<sup>225</sup>

Under Pennsylvania and Federal takings doctrine, the means chosen by Kennett Township to protect riparian land and streams

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220. See Kennett Township Ordinance 50, § 1414; Kennett Township Ordinance 46, § 516.

221. See PA. CONST. art. I, § 27.

222. See *infra* text part III.B.5.

223. Agins, 447 U.S. at 260.

224. See Hutchinson, *supra* note 153, at 263.

225. As discussed *infra* text part III, Pennsylvania statutes may not comprehensively protect riparian buffers.

may indeed be sufficiently necessary. In considering government purchases of historic landmarks as an alternative to historic preservation restrictions on private property use, the Pennsylvania Supreme Court, in *United Artists*,<sup>226</sup> agreed with the United States Supreme Court and found “that widespread public ownership of historic properties . . . is neither feasible nor wise.”<sup>227</sup> The Pennsylvania Supreme Court also found that property use restrictions are essential in protecting historic properties because “there is no other practical means to accomplish the public interest in preserving historic landmarks.”<sup>227</sup> The reasoning in *United Artists* can be applied to riparian buffer regulations, because the Environmental Rights Amendment establishes the preservation of both historical and natural resources as rights of the people. Thus, *United Artists* supports the idea that riparian buffer regulations are a necessary means to protect the environment.

*C. The Means Must not be Unduly Oppressive*

Courts consider the extent to which government action physically intrudes upon the property and the economic impact of the action on the property holder in determining whether such action is unduly oppressive on private property.<sup>228</sup>

1. *The Extent of the Government's Physical Intrusion.*—The Kennett Township riparian buffer regulations do not impose servitudes or call for public access to, or call for government inspection of riparian land. Therefore, the Township is not physically intruding upon the property of riparian landowners. There is no per se taking of private property without a physical intrusion.<sup>229</sup>

2. *The Economic Impact of the Government Action.*—A court may find a compensable regulatory taking when a government regulation places a severe economic burden on a property owner or interferes with the property owner's distinct investment-backed expectations.<sup>230</sup> However, before approaching this part of the takings analysis, a court may first decide to define the measure of

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226. *United Artists*, 635 U.S. at 618 (quoting *Penn Cent.*, 438 U.S. at 109 n.6).

227. *See id.* at 618.

228. *See id.*

229. *See supra* text accompanying notes 169-74.

230. *See Penn Cent.*, 438 U.S. at 124.

the property interest under consideration.<sup>231</sup>

*a. Defining the property interest.*—Since the *Lucas*<sup>232</sup> decision, some courts have narrowed the regulatory takings analysis, including only the portion of property subject to the government action rather than the property as a whole.<sup>233</sup> Although the Kennett Township riparian buffer regulations essentially apply to land within seventy-five feet of any streambank, a riparian landowner's entire contiguous holdings may extend well upland of the regulated buffer zone. Thus, because a riparian landowner may enjoy free use of any upland property, "the greater the area outside of the buffer zone, the lesser the chance of a takings finding under the traditional 'whole parcel' approach".<sup>234</sup> However, the *Lucas*<sup>235</sup> decision and subsequent federal court cases<sup>236</sup> provide authority for a more narrow view of the property interest. When only the portion of the landowner's property that is regulated is considered in the analysis there is a greater chance that a court will find a regulatory taking.

*b. Interference with distinct investment-backed expectations.*—Given the limited area regulated by the Kennett Township riparian buffer regulations, a landowner may not be able to show an interference with investment-backed expectations. To prove an interference, landowners "must be able to point to specific facts and circumstances that make their expectations reasonable."<sup>237</sup> For example, an interference could occur if, prior to the adoption of the regulations, a developer purchased riparian land in the Township with the intention of developing it over time. Because such development may now be prohibited, the Township regulations could constitute an interference with developers' investment expectations.<sup>238</sup> Such a situation which arise only under a narrow view of the property interest; otherwise a developer could still realize an investment profit from any land outside of the buffer zone.

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231. See *supra* text accompanying notes 173-76.

232. See *Lucas* 505 U.S. 1003.

233. See *supra* text accompanying notes 173-76.

234. See Hutchinson, *supra* note 153, at 264.

235. See *Lucas* 505 U.S. at 1016 n.7.

236. See, e.g., *Loveladies Harbor*, 28 F.3d 1171.

237. Ausness, *supra* note 149, at 371.

238. See generally *Loveladies Harbor*, 28 F.3d at 1179.

c. The economic impact.—Except for restrictions that deny landowners all economically beneficial use of their property,<sup>239</sup> the Pennsylvania Supreme Court upholds regulations that go so far as to prevent the most profitable use of property.<sup>240</sup> If the economic impact is severe, the United States Supreme Court compares the value that has been taken from the property with the value that remains in order to judge if the regulation has gone so far as to cause a taking.<sup>241</sup>

A landowner claiming a taking by the Kennett Township riparian buffer regulations may seek a more narrow view of the property interest in order to claim a total deprivation of land use. Even if a court narrowly defines the property interest to include only the size of the regulated buffer zone, the landowner will still retain permitted land uses within the buffer zone. Existing uses at the time the regulations were adopted, as well as timber harvesting and agricultural activities, are permitted in the buffer zones.<sup>242</sup> Given this flexibility of the regulations and the limited size of the buffer zones, few, if any, riparian landowners will be deprived of all economically beneficial use of their property.

#### D. *The Lucas Nuisance Exception*

If a riparian landowner is able to show a deprivation of all economically beneficial property use so as to establish a categorical taking, Kennett Township could argue the riparian buffer regulations satisfy the *Lucas* nuisance exception.<sup>243</sup> Under this exception, the government action will not be considered a taking if the prohibited land use is barred by existing property or nuisance law.<sup>244</sup> In Pennsylvania, the discharge of any substance into the waters of the Commonwealth, which causes or contributes to pollution, is considered a public nuisance.<sup>245</sup> Riparian buffers, which are designed to restrict land use for the purpose of controlling nonpoint source pollution, serve to control a public nuisance. Thus, Kennett Township could likely rely on the *Lucas* nuisance exception to prevail over a riparian landowner's categorical takings

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239. A denial of all economically beneficial use is a categorical or per se taking. See *Lucas*, 505 U.S. at 1015.

240. See *United Artists*, 635 A.2d at 618.

241. See *Keystone*, 480 U.S. at 497.

242. See Kennett Township Ordinance 46, § 516.

243. See *supra* notes 170-73. See also Hutchinson, *supra* note 153, at 266-67.

244. See *Lucas*, 505 U.S. at 1026-30.

245. See PA. STAT. ANN. tit. 35 § 691.3 (West 1993).

claim.

### *E. Regulatory Takings Summary*

The Kennett Township riparian buffer regulations are presumably valid because they appear to be a necessary means of accomplishing a legitimate Township interest. The regulations could cause a compensable taking, in particular circumstances, if they deprive a riparian landowner of all economically beneficial use of his or her property. Considering the size of the regulated buffer zones and the permitted land uses within the zones, few cases of complete economic deprivation will arise. In those cases that do arise, the Township could attempt to avoid a compensable taking by arguing the nuisance exception. If a case for compensation makes its way to the courts, the main issue will concern the definition of the property interest.

### VI. Conclusion

As this comment discusses, *supra*, deforestation and development along Pennsylvania's rivers and streams has contributed to water quality degradation. Nonpoint source pollution, excessive storm water flooding, and loss of wildlife habitat are some of the problems associated with Pennsylvania's water courses. Protection and restoration of riparian forest buffers provides a viable solution to prevent further degradation and to improve water quality.

In Pennsylvania, riparian buffers may be protected through the adoption of local municipal land use ordinances, which regulate the use of private property. If these ordinances go too far and excessively restrict individual property rights, regulatory takings claims may arise under the United States and Pennsylvania Constitutions.

Kennett Township has adopted progressive riparian buffer regulations through zoning and land development ordinances. These regulations provide for the protection of riparian buffers through land use restrictions while remaining flexible to respect the rights of property owners. In all but a few rare cases of total economic deprivation of private property, the Kennett Township regulations are expected to achieve their environmental goals while avoiding the issue of regulatory takings.

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