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# Integrating Water Management and Land Use Planning: Uncovering the Missing Link in the Protection of Florida's Water Resources?

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# INTEGRATING WATER MANAGEMENT AND LAND USE PLANNING: UNCOVERING THE MISSING LINK IN THE PROTECTION OF FLORIDA'S WATER RESOURCES?

*Mary Jane Angelo\**

Except for limited provisions, Florida law does not establish a formal link between land planning and water planning. In light of the importance of water resources for the future development of the State, this is a significant "missing link."<sup>1</sup>

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The views expressed in this Article are those of the author and do not necessarily reflect the views of the St. Johns River Water Management District Governing Board or staff. The author would like to thank the St. Johns River Water Management District's planning staff for their assistance with this Article — especially Kraig McLane, Lois Bush, and Erik Lewis.

1. ENV'T. LAND MGMT. STUDY COMM., BUILDING SUCCESSFUL COMMUNITIES 6 (1992).

## I. INTRODUCTION

In Florida, a state with such significant yet delicate water resources, a rapidly-growing population threatens to undermine its very own water supply, flood management, and healthy environment. A flight over Florida reveals land that seems to be brimming with water. Surrounded on three sides by ocean, cross-hatched with several hundred rivers and streams, peppered with over seven thousand lakes,<sup>2</sup> and blanketed by hundreds of thousands of acres of swamps and marshes, Florida appears to have an abundance of water. In fact, Florida receives an average of fifty-three inches of rainfall annually.<sup>3</sup> This seeming abundance of water, however, does not tell the whole story.<sup>4</sup>

First, the vast majority of rainfall is lost to evapotranspiration and surface water run-off.<sup>5</sup> Further, Florida rainfall is not evenly distributed, either by time or place.<sup>6</sup> Not only does rainfall vary significantly from year to year, but within a given year, most of Florida's rain is limited to the summer months.<sup>7</sup> Further, with large segments of Florida's population concentrated along coastal areas, available freshwater is often located at a significant distance from densely populated areas that need it the most.<sup>8</sup> With regard to Florida's wetlands, hundreds of thousands of acres of wetlands have been lost to agriculture and development.<sup>9</sup> Moreover, with an average of 171 gallons of water per person per day being used in the State, Florida has the highest per capita water consumption in the world.<sup>10</sup> Sixty-two percent of Florida's water use comes from groundwater withdrawals.<sup>11</sup> As evidenced by the serious problems experienced in the Tampa Bay area starting in the early 1990s, overwithdrawals of

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2. INST. OF SCI. AND PUB. AFF., WATER RESOURCE ATLAS OF FLORIDA 89 (Edward A. Fernald & Elizabeth D. Purdum eds., 1998).

3. *Id.* at 16.

4. Ronald A. Christaldi, *Sharing the CUP: A Proposal for the Allocation of Florida's Water Resources*, 23 FLA. ST. U.L. REV. 1063, 1064 (1996).

5. WATER RESOURCE ATLAS OF FLORIDA, *supra* note 2, at 33.

6. *See id.* at 35.

7. *Id.* at 17-36.

8. *Id.* at 10-11.

9. *Id.* at 102.

10. Alexander Rhodes, *Capacity Sharing: The Next Step in Florida's Evolving Water Economy*, 26 STETSON L. REV. 805, 808 (1997) (citing RICHARD L. MARELLA, U.S. GEOLOGICAL SURVEY, WATER RESOURCES INVESTIGATIONS REPORT 92-4140, WATER WITHDRAWALS, USE, AND TRENDS IN FLORIDA 1990, at 6 (1992)).

11. *Id.* at 808-09.

groundwater can lead to saltwater intrusion, subsidence of land, drained lakes and wetlands, and reduced supply.<sup>12</sup> To compound matters, Florida is one of the fastest growing states in the nation. With a current population of approximately sixteen million, at the present rate of growth, Florida can expect to be home to over twenty million people by the year 2020.<sup>13</sup> With these facts in mind, attention has focused on the relationship between water management and land use planning in Florida in recent years.

The link between water management and land use planning is very important, although not very well defined or understood. Land use planners and water managers live in very different worlds and speak very different languages. Planners live in a world of “densities,” “urban boundaries,” and “levels of service.” They use acronyms like “ELMS”<sup>14</sup> and “EAR.”<sup>15</sup> Water managers live in an alternate world of “mitigation ratios,” “wet detention ponds,” and “reasonable beneficial uses,” and have their own acronyms like “ERPs”<sup>16</sup> and “CUPs.”<sup>17</sup> Water managers point to poor planning as the cause of environmentally inappropriate development and planners point to the shortcomings of water management regulatory programs as the cause of environmental woes. So what is the problem? Why are water management and planning not better integrated? Should they be? How can we improve this integration?

This Article explores the link between water management and land use planning. First, in Section II, this Article provides an overview of water management in Florida. Then, in Section III, this Article analyzes the differences between planning and regulatory permitting and asserts that

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12. *Id.* at 809.

13. FLA. DEPT. OF ENVTL. PROTECTION, ET AL., FLORIDA WATER PLAN (1995).

14. “ELMS” refers to the Environmental Lands Management Study Committee. In 1972, the Florida Legislature established the first Environmental Lands Management Study Committee (ELMS I). ELMS I was charged with making recommendations regarding the implementation of the then new development of regional impact program and evaluating mechanisms for making land use decisions in Florida. In 1982, Governor Graham established ELMS II, which was tasked with a further evaluation of the State’s need for integrated comprehensive planning. The recommendations of ELMS II ultimately led to the adoption of the 1985 growth management legislation, which established the current framework for land use planning in the State. In 1991, Governor Chiles assembled ELMS III to evaluate the effectiveness of the implementation of the 1985 legislation.

15. The term “EAR” refers to an evaluation and appraisal report adopted pursuant to FLA. STAT. § 163.3191 (2001).

16. The term “ERP” refers to an environmental resource permit under Chapter 373, part IV of the Florida Statutes.

17. The term “CUP” refers to a consumptive use of water permit under Chapter 373, part II of the Florida Statutes.

both are needed for effective protection of water resources. Section IV reviews the current role that land use planning plays in water management and the current role that water management plays in land use planning. Section V of this Article concludes by evaluating a variety of recommendations that have been made to improve the integration of the two and suggests some additional means of improving integration.

## II. WATER MANAGEMENT IN FLORIDA

### *A. Background*

In 1972, the Florida Legislature enacted Chapter 373 of the Florida Statutes, entitled the Florida Water Resources Protection Act (Act).<sup>18</sup> This Act, based in large part on the Model Water Code,<sup>19</sup> was intended to implement the policy of Article II, Section 7, of the Florida Constitution,<sup>20</sup> by preserving natural resources, fish and wildlife, minimizing degradation of water resources caused by stormwater discharges, and providing for the management of water and related land resources.<sup>21</sup> Under the Act, water management districts are responsible for addressing issues such as water supply, flood protection, water quality, and protection of natural systems.<sup>22</sup> These responsibilities are carried out through the implementation of a number of regulatory and nonregulatory programs. One of the most far-sighted acts of the crafters of the Act was to recognize that water resources do not stop at city or county boundaries and to establish the State's five water management districts based on watershed boundaries rather than political boundaries.<sup>23</sup> This regional/watershed-based aspect of water management is critical to the protection of water resources. The Act contains two primary regulatory tools for protecting water resources: the consumptive use of water tool (Part II of the Act), and the Environmental Resource Permitting (ERP) program (Part IV of the Act).<sup>24</sup>

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18. FLA. STAT. ch. 373 (1972).

19. MALONEY, FRANK E. ET AL., A MODEL WATER CODE (Univ. of Fla. 1972).

20. FLA. CONST. art. II, § 7 (2000).

21. FLA. STAT. § 373.016 (2001); Prugh v. St. Johns River Water Mgmt. Dist., 578 So. 2d 1130, 1131 n.2 (Fla. Dist. Ct. App. 1991).

22. See FLA. STAT. § 373.016 (2000).

23. *Id.* § 373.016.

24. *Id.* ch. 373.

### B. Environmental Resource Permitting

Virtually all land development above a certain size in Florida is regulated under the ERP program of Part IV, Chapter 373 of the Florida Statutes.<sup>25</sup> This program is extremely broad in its scope. However, this is not surprising given its roots in the Model Water Code, which intended to capture

virtually every type of artificial or natural structure or construction that can be used to connect to, draw water from, drain water into, or be placed in or across surface water . . . [including] . . . all structures and constructions that can have an effect on surface water.<sup>26</sup>

Specifically, the jurisdiction of the ERP program includes the construction, alteration, operation, maintenance, abandonment, and removal of any "stormwater management system," "dam," "impoundment," "reservoir," "appurtenant work" or "works," and all "dredging and filling" for surface waters or wetlands.<sup>27</sup> Individually and collectively, these terms are referred to as "surface water management systems" or "systems."<sup>28</sup> Thus, the ERP program covers most land development systems, including buildings, parking lots, roads, ditches, pits and mines, whether in uplands, wetlands, or other surface waters.<sup>29</sup>

The ERP program is often described as regulating water quality and quantity, and protecting natural water or wetland systems.<sup>30</sup> The specific permitting criteria that address each of these areas of protection are found in each district's regulations. For the St. Johns River Water Management District,<sup>31</sup> the permitting criteria are found in Rules 40C-4.301 and 4C-

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25. See generally *id.* ch. 373, pt. IV.

26. MALONEY, *supra* note 19, at 223.

27. FLA. STAT. § 373.413.

28. FLA. ADMIN. CODE ANN. R. 40C-4.021(26).

29. A number of exemptions from ERP requirements for specific activities are found in both the statutes and regulations. FLA. STAT. §§ 373.406 & 403.813; FLA. ADMIN. CODE ANN. R. 40C-4.051. One of the most significant exemptions is the exemption for the alteration of the topography of the land by agricultural, silvicultural, and horticultural activities.

30. Chapter 373 authorizes the water management districts to require permits to protect the water resources of the district. Section 373.413 addresses the construction and alteration of systems. Section 373.416 addresses the maintenance and operation of systems. Section 373.426 addresses the abandonment and removal of systems.

31. Each water management district, except for the Northwest Florida Water Management District, has its own ERP regulations. All of these regulations, however, are very similar. For the

4.302 of the Florida Administrative Code.<sup>32</sup> Rule 40C-4.301 applies to all construction, alteration, operation, maintenance, removal, or abandonment of surface water management systems whether in uplands, wetlands, or other surface waters.<sup>33</sup> The application of Rule 4.302 is limited to activities that occur in, on, or over wetlands or other surface waters.<sup>34</sup>

Among other things, the criteria in Rule 40C-4.301 expressly prohibit any activity that would cause adverse water quantity impacts, cause or contribute to a violation of a State water quality standard, or cause adverse impacts to the functions provided to fish and wildlife by wetlands and other surface waters.<sup>35</sup> Parroting the language of section 373.414(1)(a) of the Florida Statutes, Rule 40C-4.302 of the Florida Administrative Code, contains the public interest balancing test from the old wetland resource management program,<sup>36</sup> which requires consideration of seven different factors relating to water resource protection.<sup>37</sup> The water quantity and water quality criteria in these rules often can be met through engineering design solutions,<sup>38</sup> whereas the criteria related to protecting wetland functions often are met through either avoiding wetland impacts or providing mitigation to offset impacts to wetlands.<sup>39</sup>

### C. *Consumptive Use Permitting*

The regulation of consumptive uses of water in Florida is governed by Part II of Chapter 373 which authorizes the State's five water management

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purposes of this Article, the St. Johns River Water Management District's regulations will be used for illustration.

32. FLA. ADMIN. CODE R. 40C-4.301; R. 40C-4.302.

33. *Id.* R. 40C-4.301.

34. *Id.* R. 40C-4.302. The two different sets of permitting criteria reflect the origins of the ERP program. Prior to the effective date of the ERP program, October 1995, two separate but overlapping regulatory programs governed land development in Florida: the Management and Storage of Surface Water (MSSW) program in Chapter 373 and the Wetland Resource Management Program ("WRM", often referred to as "dredge and fill") from Chapter 403. The old MSSW program addressed land activities whether in uplands or wetlands, whereas the scope of the WRM program was limited to activities in wetlands. When the two programs were merged, as part of a legislatively mandated streamlining effort, to form the ERP program, the bulk of both sets of criteria were retained.

35. *Id.* R. 40C-4.301.

36. *Id.* R. 40C-4.302.

37. *Id.* R. 40C-4.302(1)(a)1-7.

38. District rules contain a number of "presumptive design" criteria, which if met provide a presumption that the applicable criteria will be met. FLA. ADMIN. CODE ANN. R. 40C-42.026.

39. Section 373.414(b) expressly provides that if an applicant is unable to otherwise meet the criteria of section 373.414, it may propose mitigation to offset the impacts from the regulated activity.

districts to adopt rules governing consumptive uses in their respective jurisdictions to “[prevent harm] to the water resources of the area.”<sup>40</sup> The water management districts have implemented this authority through a consumptive use program (CUP) requiring permits for most water uses.<sup>41</sup>

The statutory standard for authorizing a consumptive use of water consists of a three-prong test: 1) the proposed use must be a “reasonable beneficial” use; 2) the proposed use must not interfere with any presently existing legal use of water; and 3) the proposed use must be consistent with the public interest.<sup>42</sup> Several criteria that make up the “reasonable beneficial” component of the test are set forth in the water management district rules.<sup>43</sup> The “reasonable beneficial” component in the St. Johns River Water Management District rules<sup>44</sup> include a number of criteria related to preventing environmental harm and requiring water conservation and reuse of reclaimed water whenever feasible.<sup>45</sup>

For example, these rules require that all available water conservation measures that are economically, environmentally, or technically feasible must be used. These rules also require that when reclaimed water is available, it must be used if economically, environmentally, and technically feasible.<sup>46</sup> The rules also require that the proposed use must be the lowest quality source available, that environmental and economic harm must be reduced to an acceptable amount, and that the use must not cause significant saltwater intrusion.<sup>47</sup>

In addition to these requirements, the rules also contain two specific criteria to protect water necessary for environmental health. First, these criteria prohibit consumptive uses of water that would cause water levels or flows to fall below the minimum flow or levels<sup>48</sup> established by rule for

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40. FLA. STAT. § 373.219 (2001).

41. By statute, single family uses are exempt from CUP regulation. FLA. STAT. § 373.219(1). In addition, the water management districts have adopted a number of regulatory exemptions, thresholds, and permits by rule. FLA. ADMIN. CODE ANN. R. 40C-2.051.

42. FLA. STAT. § 373.223(1).

43. FLA. ADMIN. CODE ANN. R. 40C-2.301(4).

44. Although each water management district has its own rules, for purposes of this Article, the St. Johns River Water Management District rules will be used for illustrative purposes.

45. FLA. ADMIN. CODE ANN. R. 40C-2.301(4).

46. *Id.* R. 40C-2.301(4)(f).

47. *Id.* R. 40C-2.301(4).

48. Section 373.042 requires the water management districts to establish minimum flows for all surface water courses, which establish the limit at which further withdrawals would be significantly harmful to the water resources or ecology of the area and to establish minimum levels, which establish the level of groundwater in an aquifer and the level of surface water at which further withdrawals would be significantly harmful to the water resources of the area.



that particular water body. And second, these criteria require that new consumptive uses cannot interfere with water that has been “reserved” from use by rule.<sup>49</sup>

One very important aspect of the CUP of Part II, Chapter 373 is that it is preemptive.<sup>50</sup> Section 373.217(2) provides that Part II is the “exclusive authority for requiring permits for the consumptive use of water. . . .”<sup>51</sup> Thus, unlike many other areas of regulation where local governments are free to have more restrictive regulations than exist at the State level, the Legislature has taken the regulation of the consumptive uses of water out of the hands of local governments. In other words, the regulation of the consumptive use of water is within the sole purview of water managers and is not within the jurisdiction of local government land use planners and growth managers.

Whatever the regulatory program, ERP or CUP, water management regulation is not designed to address “planning” types of concerns. Neither ERP nor CUP is aimed at directing types, densities or intensities of land development, determining where large tracts of land should be preserved, or addressing resource issues that relate solely to upland or non-water related concerns. Instead, water management permitting requirements frequently can be met through engineering solutions and project design regardless of whether the project is in an appropriate location or of an appropriate density or intensity.

For example, under both the ERP and CUP rules, water quality and water quantity issues are typically addressed by engineering stormwater treatment and attenuation ponds to treat and hold a sufficient amount of stormwater run-off.<sup>52</sup> Similarly, wetland protection criteria are typically addressed by designing projects to minimize wetland impacts (e.g., by routing roadways around wetlands instead of through them) and by providing sufficient wetland mitigation to offset those impacts that do

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49. FLA. ADMIN. CODE ANN. R. 40C-2.301(5)(a)4. Section 373.223(4) provides that the water management districts, by regulation, may reserve from use by permit applicants, water in such locations and quantities, required for the protection of fish and wildlife or the public health and safety. This statutory provision has only been utilized once. In 1994, the St. Johns River Water Management District adopted FLA. ADMIN. CODE ANN. R. 40C-2.301, which reserved an amount of water to protect the fish and wildlife that utilize the Paynes Prairie State Preserve. Currently, this provision is experiencing a renewed interest and may be used in the near future to reserve water to protect certain spring flows, and to protect water needed to carry out certain restoration projects such as the Everglades restoration in the South Florida Water Management District and the Upper Ocklawaha restoration in the St. Johns River Water Management District.

50. FLA. STAT. ch. 373 (2000).

51. *Id.* § 373.217(2) (2000).

52. *Id.* ch. 373.

occur. It would be a very rare case where, given enough financial resources and engineering know-how, a project could not be designed to meet the ERP criteria. Unlike ERP, however, the availability of a water supply could, under some circumstances, be a limiting factor to the location and timing of development. Nevertheless, as discussed further below, it is likely that water supply planning efforts, coupled with developments in alternative water resource technologies, such as, desalination and aquifer storage and recovery, will minimize the potential growth-limiting effect of water supply.

#### *D. Non-Regulatory Programs*

In addition to the regulatory programs described above, the water management districts are also responsible for carrying out several non-regulatory programs. Such programs include planning, land acquisition, and wetlands and water body restoration.

As discussed in more detail below, the water management districts have several planning responsibilities, including developing the water management plans, providing technical assistance to local government planning departments, and commenting on local government comprehensive plans and plan amendments.

Land acquisition programs comprise a significant component of the water management districts' mission of water resource stewardship.<sup>53</sup> Full fee title or partial interests (i.e., conservation easements) in land are acquired for multiple benefits including the implementation of surface water restoration projects, and the preservation of fish and wildlife habitat, aquifer recharge, non-structural flood protection, and water resource development to address water supply needs.<sup>54</sup> Section 373.139 of the Florida Statutes authorizes the water management district to acquire fee or less-than-fee title to real property for flood control, water storage, water management, conservation and protection of water resources, aquifer recharge, water resource and water supply development, and the preservation of wetlands, streams, and lakes.<sup>55</sup> Much of the districts' current land acquisition program is funded through Preservation 2000 and its successor, the Florida Forever Fund.<sup>56</sup> Florida Forever moneys can be used for surface water restoration, water resource development, and

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53. *Id.* § 373.139.

54. *Id.*

55. *Id.*

56. FLA. STAT. § 259.105 (2001).

stormwater management projects, as well as traditional land acquisition projects.<sup>57</sup>

In addition to regulatory, planning, and land acquisition programs, the water management districts also are responsible for a variety of restoration projects. Many of the districts' restoration efforts are under the Surface Water Improvement and Management (SWIM) Program.<sup>58</sup> Under the SWIM program, the water management districts are in the process of restoring numerous water bodies, including Lake Okeechobee, Biscayne Bay, the Indian River Lagoon, Lake Apopka, the lower St. Johns River, and Tampa Bay.

### III. PERMITTING IS NOT PLANNING AND PLANNING IS NOT PERMITTING: MAKING THE CASE FOR BOTH

Before one can begin to analyze the integration of water management and land use planning, it is critical to acknowledge the fact that water management regulation and land use planning are two completely different natural resource protection tools with very different objectives. Permitting is not planning. Federal, State, regional, and even local wetland and water regulation programs issue permits for land development by looking at the potential adverse effects of the particular development on water resources. These programs do not plan for future land development. Also, these programs do not use and identify and implement long-range goals, objectives and policies based on a comprehensive assessment of natural resources in a particular area in light of future growth projections and community needs and desires.<sup>59</sup> Using a regulatory program to attempt to achieve proper land use planning is a losing proposition. Planning decisions cannot be made when a developer requests a permit application. All that can be done at this point is minimize environmental impacts through engineering treatment technologies and wetland mitigation. The

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57. *Id.*

58. Section 373.453 requires each district to prepare and maintain a list that prioritizes water bodies of regional or statewide significance and to develop SWIM plans for the water bodies on the priority list. Section 373.457 provides that legislative appropriations provided for the SWIM program shall be available to the water management districts for detailed planning and implementation of SWIM plans.

59. See e.g., Charles L. Siemon, *Successful Growth Management Techniques: Observations from the Monkey Cage*, 29 URB. LAW 233 (1997). "At the very core of any successful program of resource planning and management is the discipline of planning. . . . [T]he essential elements of good planning are 1) comprehensive, meaningful, and up-to-date data and analysis; and 2) a series of discrete goals, policies, and objectives which are intended to guide individual decisions . . . ." *Id.* at 234.

burden is passed on to the permitting agency, rather than being dealt with as a land use and natural resource protection policy.

Planning and permitting are intended to ask different questions. Planning should ask “what,” “where,” and “when,” whereas permitting should ask “how.”<sup>60</sup> Planning should address the “what” and the “where” by looking at a particular location and evaluating the characteristics of the water resources of that location, taking into consideration such characteristics as water quality, presence and quality of wetlands, flood potential, and water-supply or aquifer recharge importance.

Then, planning should evaluate what land uses and what densities or intensities are appropriate at that particular location given the characteristics of the water resources of that location. The type of development a local government wants to allow and where and when it wants to allow them are properly within the province of local government. It is the citizens’ of the local governments prerogative to decide what their community will look like – i.e., a vision for their future. The “when” of planning is typically addressed through concurrency requirements. Section 163.3180 of the Florida Statutes includes a number of water-related facilities among the public facilities and services subject to concurrency requirements on a statewide basis.<sup>61</sup>

Planning should be used to direct inappropriate or intense land uses away from environmentally sensitive wetlands and surface waters. Moreover, local governments have the ability both to take into consideration the “big picture” with regard to planning water-related facilities such as wastewater treatment facilities and to reuse facilities. Water management regulation, on the other hand, does not look at a particular location and evaluate what types, densities or intensities of land use are appropriate at that location. Instead, water management regulation asks “how” a project proposed for a particular site can meet applicable permitting criteria to protect water resources. For example, ERP or CUP should ask: “how” the proposed project can be designed to ensure that State water quality standards are met; “how” the proposed project can be designed to ensure there is compensation for flood-plain storage loss; “how” wetland impacts can be reduced or eliminated by design modifications; “how” remaining wetland impacts can be mitigated; and “how” alternative lower-quality water supply sources can be developed

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60. TERRELL K. ARLINE, *THE LINK BETWEEN COMPREHENSIVE PLANNING AND ENVIRONMENTAL PERMITTING* (1999) (prepared as an update to a Florida Bar Continuing Legal Education Course).

61. FLA. STAT. § 163.3180 (2001).

and utilized. Water management districts, in their permitting role, must assume that a particular land use on a particular site is appropriate — i.e., that questions of “what,” “where” and “when” have already been answered by the local government. Then permitting is used to minimize and alleviate environmental impacts through technology and mitigation.

Although the “how” of permitting is extremely important in ensuring that projects comply with basic water-related environmentally protective standards, it is not a substitute and does not obviate the need for good local government planning. There are many examples that illustrate how quality land use planning is an essential complement to water management regulation and protection of natural resources. One such example is the need for large areas of habitat for wetland-dependent species, such as, the Florida black bear or the Florida panther. These species require an extremely large area of both wetlands and uplands for habitat.

However, ERP criteria are aimed at protecting only the functions that wetlands provide for species such as these. If for example, a large residential subdivision is proposed in an area that is a significant black bear habitat, the ERP will, for the most part, only address the habitat degradation to the extent that wetland impacts are involved. The ERP criteria only address upland impacts in very limited circumstances.<sup>62</sup> If the proposed subdivision does not involve any wetland impacts, the ERP is not concerned with the potential impact on the upland bear habitat, despite the fact that in the absence of wetland impacts the bear habitat would still be adversely impacted due to upland development. This example highlights the need for good planning. If a goal is to protect the bear habitat, permitting alone is not sufficient. Instead, a combination of good planning and other nonregulatory tools such as land acquisition, conservation easements and transferable development rights should be used to protect the important habitat and direct growth away from it.

#### IV. HISTORY OF LINKAGE BETWEEN WATER MANAGEMENT AND PLANNING: IS THE LINK REALLY “MISSING”?

##### *A. Background*

For almost thirty years, Florida has attempted to integrate land use planning and water management. Starting in the early 1970s and

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62. ERP criteria only address upland impacts to the extent that aquatic or wetland-dependent listed species actually nest or den in uplands. Use of uplands for feeding, travel or loafing is not addressed by ERP. See Rule 12.2.7, ST. JOHNS RIVER WATER MANAGEMENT DISTRICT ERP APPLICANT’S HANDBOOK.

continuing to the present, numerous legislative acts and policy initiatives have sought to improve such integration.<sup>63</sup> Yet, despite these attempts, in 1991, the Third Environmental Lands Management Study Committee concluded that the link between land planning and water planning is a significant "missing link."<sup>64</sup>

Since then, continuing efforts have been made to achieve integration. In 1994, the Land Use and Water Planning Task Force recommended strengthening data collection and dissemination of water resources, the requiring of local governments to use that data, and more closely linking Regional Planning Council Strategic Regional Policy Plans with the water management districts' plans and local government comprehensive plans. Other recommendations have included: (1) linking local government comprehensive plans with water management district regional water supply plans; (2) increasing technical and financial assistance to ensure that local government comprehensive plans and actions coordinate with the needs and sources of water management districts and regional water supply plans; and (3) requiring the Florida Department of Community Affairs (DCA) to rely on water management districts for evaluations of identified water supply sources.<sup>65</sup> Still, in 1997, a statewide paper on the state of the land and water concluded that Florida has not made progress in linking land and water management.<sup>66</sup>

### *B. Growth Management Study Commission*

The most recent attempt at integration occurred in July of 2000, when Governor Jeb Bush created the Growth Management Study Commission (Commission)<sup>67</sup>

to address the fact that, although the processes established by the existing growth management laws were well intended, the quality of growth has not met expectations, the strains on infrastructure have been only marginally reduced and, in essence, a more

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63. The Florida Environmental Land and Water Management Act of 1972; the Local Comprehensive Planning and Land Development Regulation Act of 1975; and the Growth Management Act of 1985 included provisions that sought to achieve some level of integration between land and water management planning.

64. ENVTL. LAND MGMT. COMM., *supra* note 1, at 6.

65. For a full discussion of recent recommendations, see generally AN AMERICAN ASSEMBLY THE STATE OF LAND AND WATER, FORGING STRONGER LINKAGES (1997).

66. *Id.* at 3-4.

67. Fla. Exec. Order No. 2000-196 (1999).

complicated, more costly process has been established which does not provide the expected corresponding benefits.<sup>68</sup>

The Commission, consisting of twenty-six representatives from a variety of backgrounds, determined that “the time was ripe for a bold change in Florida” and recommended substantial changes to existing growth management laws.<sup>69</sup> Surprisingly, despite numerous references in Governor Bush’s Executive Order establishing the Commission regarding the importance of water resources,<sup>70</sup> to date the Commission’s report has not mentioned any need for or recommendations for strengthening or improving the link between water management and planning. In fact, the draft reports, to date, do not even mention water management districts.

Nevertheless, the Commission’s recommendations do include an important recognition of the importance of natural resource issues, presumably including water resource issues, in growth management. One of the most significant changes the Commission recommended is that the State’s role in growth management be focused on a limited number of compelling State interests. The draft report calls for the repeal of the current State comprehensive plan in Chapter 187 of the Florida Statutes and would limit the State’s review of local comprehensive plan amendments to those issues that are determined to be of the highest importance and that are deemed to be a compelling interest to the State of Florida.<sup>71</sup>

Significantly, the very first compelling State interest identified in the draft report is “natural resources of statewide significance.”<sup>72</sup> Absent from this latest draft is the language from the previous draft that expressly states that “natural resources of statewide significance” are limited to “SWIM water bodies, outstanding Florida waters, protection of water supply, ecosystems and habitat.” This definition is heavily-laden with water resource issues.<sup>73</sup> Although, this language was removed, it is unclear why or if it will be included in later drafts. One other significant water

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68. FLORIDA’S GROWTH MGMT. STUDY COMM., SECOND DRAFT REPORT AND RECOMMENDATIONS (Jan. 18, 2001).

69. *Id.*

70. Fla. Exec. Order No. 2000-196, at 1 (*e.g.*, “it is in the best interests of the People of the State of Florida to ensure sound planning for the management of Florida’s land and water resources”).

71. FLORIDA’S GROWTH MGMT. STUDY COMM., SECOND DRAFT REPORT AND RECOMMENDATIONS 9-10.

72. *Id.* at 11.

73. FLORIDA’S GROWTH MGMT. STUDY COMM., SECOND DRAFT REPORT AND RECOMMENDATIONS (2001).

management recommendation of the draft report is that land acquisition agencies be more aggressive in their use of conservation easements as a means of preserving priority natural resource areas.<sup>74</sup> Although not expressly stated, presumably this recommendation would include the water management districts' use of conservation easements to protect Florida's water resources.

### *C. The Role Of Planning In Water Management*

Even though planning and permitting have very different objectives and effects, there are currently some significant linkages between the two. Water resource issues currently play a significant role in local government comprehensive planning, at least in theory. Both Chapter 163 of the Florida Statutes and Rule 9J-5 of the Florida Administrative Code provide that a number of water resource issues be included in local government comprehensive plans.<sup>75</sup>

For example, Section 163.3177 of the Florida Statutes requires local government comprehensive plans to contain the following elements addressing water resource-related concerns: a future land use element,<sup>76</sup> a general sanitary sewer, solid waste, drainage, potable water and natural groundwater aquifer recharge element,<sup>77</sup> and a conversation element.<sup>78</sup> Rule 9J-5 of the Florida Administrative Code establishes the minimum criteria for these elements.<sup>79</sup>

Section 9J-5.006 of the Florida Administrative Code sets forth the requirements for the future land use element, which includes a requirement that natural resources, including rivers, bays, lakes, flood plains, harbors, and wetlands, as well as existing and planned public potable water wells and wellhead protection areas, be shown on the existing and future land use maps.<sup>80</sup> This section also includes a number of other provisions that relate to water resource protection, such as, (1) the requirement to ensure protection of natural resources; (2) the requirement to discourage the proliferation of urban sprawl; and (3) the requirement to contain provisions for drainage and stormwater management and for the protection of potable

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74. *Id.* at 16.

75. FLA. STAT. ch. 163; FLA. ADMIN. CODE ANN. R. 9J-5 (2001).

76. FLA. STAT. § 163.3177(6)(a) (2000).

77. FLA. STAT. § 163.3177(6)(c) (2000).

78. FLA. STAT. § 163.3177(6)(d) (2000).

79. FLA. ADMIN. CODE ANN. R. 9J-5 (1999).

80. *Id.* R. 9J-5.006.



well water fields by designating appropriate activities and land uses within well field protection areas and environmentally sensitive lands.<sup>81</sup>

Section 9J-5.011 of the Florida Administrative Code is intended to provide for necessary public facilities and services correlated to future land use projections, and addresses, among other things, drainage facilities and potable water facilities' needs.<sup>82</sup>

Perhaps the most significant rule from a water resource protection standpoint is Rule 9J-5.013, which is intended to promote the conservation, use and protection of natural resources.<sup>83</sup> This section requires local governments to identify and analyze a number of natural water systems within their boundaries, including rivers, bays, lakes, wetlands, and flood plains.<sup>84</sup> Further, this section provides that current and projected water needs and sources for the next ten-year period, based on the demands for industrial, agricultural, and potable water use and the quality and quantity of water available, be analyzed in order to meet demands. Such analysis shall consider existing levels of water conservation, use and protection, and the applicable policies of the regional water management districts.<sup>85</sup>

Also addressed in this section, is the protection of water quality by restriction of activities and land uses known to adversely affect water sources, including in groundwater recharge areas, wellhead protection areas, and surface waters used as a source of public water supply.<sup>86</sup> Finally, this section provides numerous policies addressing the protection and conservation of wetlands.<sup>87</sup> Two key policies are that wetlands and the natural functions of wetlands, shall be protected and conserved and that future land uses which are incompatible with the protection and conservation of wetlands and wetland functions shall be directed away from wetlands.<sup>88</sup>

One additional area of linkage between land use planning and water management in Chapter 163 is in the realm of concurrency.<sup>89</sup> Subsection 163.3180(2)(a) provides, among other things, that potable water facilities shall be in place and available to serve new development no later than the

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81. *Id.*

82. *Id.* R. 9J-5011.

83. *Id.* R. 9J-5.013.

84. *Id.*

85. *Id.*

86. *Id.*

87. *Id.*

88. *Id.*

89. FLA. STAT. § 163.3180 (2001).

issuance by the local government of a certificate of occupancy.<sup>90</sup> Thus, with regard to water-related issues, concurrency of development is governed by available water facilities, rather than available water supplies.

As can be seen even by the few local government comprehensive plan requirements described above, both Chapter 163 of the Florida Statutes and Rule 9J-5 of the Florida Administrative Code are replete with provisions aimed at protecting water resources. These requirements also articulate fairly lofty goals for protection of water resources through planning.<sup>91</sup> Unfortunately, these goals are not often realized.

#### D. Role of Water Management in Water Supply Planning

The Model Water Code envisioned planning as an important component of water resource management under Chapter 373 of the Florida Statutes.<sup>92</sup> However, as others have commented, planning has “failed to live up to the visions of the authors of the Model Water Code from which the planning provisions of Chapter 373 were adapted.”<sup>93</sup> Although Florida has had a State water plan, as well as district water management plans for many years,<sup>94</sup> historically these plans have not been much more than an accumulation of policies that appear in existing statutes and rules, and do not contain any actual requirements of their own.<sup>95</sup> Until very recently, water management in Florida has been governed largely by regulation rather than planning. In the past, one of the biggest hurdles to having effective local plans may have been the lack of water resource data needed by local governments to make better growth management decisions. This lack of data has led to a push for improved water supply planning.

In 1997, the Florida Legislature passed what was perhaps the most significant revision to Chapter 373 of the Florida Statutes since 1972. The 1997 Water Act (1997 Act), a culmination of three years of effort, provided a new requirement for developing State and regional water

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90. *Id.* § 163.3180(2)(a).

91. *Id.* ch. 163; R. 9J-5.

92. *Id.* ch. 373.

93. Bram D.E. Canter & Sheri I. Holtz, *Water Law in Transition: Debates That Could Shape Florida's Future*, 70 FLA. B. J. 77 (1996).

94. Section 373.036(1) requires the Department of Environmental Protection, in cooperation with water management districts, to develop a Florida water plan. Section 373.036(2) requires each water management district to develop a district water management plan for water resources within its region, which addresses water supply, water quality, flood protection and flood-plain management, and natural systems.

95. Canter & Holtz, *supra* note 93, at 78.

supply plans, created distinctions between water resource development and water supply development, and created new requirements regarding the establishment of minimum flows and levels.<sup>96</sup> Pursuant to the 1997 Act, water management districts currently are required to develop a water supply plan for each region where sources of water are determined “not to be adequate to supply water for all existing and projected reasonable beneficial uses and to sustain the water resources and related natural systems.”<sup>97</sup>

As part of its planning responsibility, each district must determine if there will be sufficient water to meet anticipated needs over the next twenty years.<sup>98</sup> When a water management district determines that there will be a water supply shortfall for any region, it must develop a twenty-year regional water supply plan, which must identify all available sources of water including “alternative sources.”<sup>99</sup> The plan must also establish the cost of developing each source, list potential sources of funding and establish the amount of water each source will yield.<sup>100</sup> The intent of the 1997 Act is to promote the availability of sufficient water for all existing and future reasonable beneficial users.<sup>101</sup> Thus, the 1997 Act itself is an expression of the Legislature’s intent that water supply should not limit future growth.

Water management districts are to take the lead in water resource development, which includes development and implementation of regional water resource management strategies, data collection, protection of water resources, public works for flood control and storage, technical assistance, and aquifer recharge.<sup>102</sup> Utilities and local governments are to take the lead in water supply development (capturing, treating and distributing water for end users), which should be coordinated with water management district water supply planning.<sup>103</sup>

In June of 2000, the St. Johns River Water Management District Water Supply Plan (Plan) was completed.<sup>104</sup> In developing the Plan, the district

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96. For a more in-depth analysis of the 1997 legislation, see generally Frank E. Matthews & Gabriel E. Nieto, *Florida Water Policy: A Twenty-Five Year Mid-Course Correction*, 25 FLA. ST. U. L. REV. 365 (1998) and Sally Bond Mann, *More Than a Drop in the Bucket: Florida Water Resources Act II*, 71 FLA. B.J. 30 (1997).

97. FLA. STAT. § 373.0361 (2000).

98. *Id.*

99. *Id.*

100. *Id.*

101. FLA. STAT. § 373.016 (2000).

102. *Id.* ch. 373.

103. *Id.*

104. ST. JOHNS RIVER WATER MGMT. DIST., DISTRICT WATER MANAGEMENT PLAN (2000).

identified several water resource development constraints: minimum flows and levels, wetland hydrology, native vegetation, saltwater intrusion, existing legal users, and no identified source to meet projected future development needs.<sup>105</sup> These “constraints” establish outer limits on the ability to develop water resources in a given area. For example, water resource development cannot result in saltwater intrusion.<sup>106</sup> The overriding consideration in identifying these constraints is that “the environment gets its water first” — i.e., water resource development will not be at the expense of environmental protection.

The greatest constraints and obligations imposed by the Plan are on the water management districts, not on CUP holders or future users. The Plan sets forth options for water resource development, but it does not require that any particular option be used.<sup>107</sup> The Plan identifies water supply projects that the district intends to fund or cost-share and ensures that CUP applicants, as well as permit reviewers and local government planners, have good data available.<sup>108</sup>

The Plan also identifies water source options that are more than adequate to meet water needs in the year 2020.<sup>109</sup> Examples of water supply source options identified in the Plan include increased water conservation and reuse of reclaimed water, seawater desalination, brackish water desalination, artificial recharge, aquifer storage and recovery, and increased reliance on surface water sources, such as from the St. Johns River.<sup>110</sup>

The Plan identifies water supply options and provides information to assist local governments in their planning. However, the Plan is not, in itself, a “growth management” plan. Instead, the Plan can help local governments ensure that water supply will be available in areas that anticipate growth, or in areas where local governments have determined to direct growth. Of course, to the extent local governments and utilities fail to pursue these water supply options, sufficient water supply may not be available in these high growth areas and such lack of water may in fact act as a limit on growth.

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105. *Id.*

106. *Id.*

107. *Id.*

108. *Id.*

109. *Id.*

110. *Id.*

### E. *Technical Assistance*

Section 373.0391 of the Florida Statutes mandates that water management districts assist local governments in the development and future revisions of local comprehensive plan elements related to water resources.<sup>111</sup> In this section, each water management district is required to provide to the local government a wide array of specified technical information related to water resources to assist in comprehensive plan development.<sup>112</sup> This “technical assistance” role is of value and should not be underestimated. Technical assistance is perhaps the most significant role that water management districts play in comprehensive plans and plan amendment decision making. Many, if not most, local governments do not have the technical expertise, the staff, or the financial resources to develop this type of technical information on their own. Thus, local governments rely heavily on water management district expertise and technical data when developing and amending the water resource-related components of their comprehensive plans.

### F. *Comprehensive Plan Review and Comment*

Since the mid-1980s, water management districts have contributed to local government comprehensive planning and plan amendments through a “review and comment” role. Section 163.3184(3) of the Florida Statutes requires local governments to transmit proposed comprehensive plans and plan amendments to a number of reviewing agencies including the appropriate water management district.<sup>113</sup> This statute requires the water management districts to provide the DCA comments for review.<sup>114</sup> The

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111. FLA. STAT. § 373.0391 (2001).

112. Section 373.0391(2)(d) requires the water management districts to supply to the local governments a description of surface water basins, including regulatory jurisdictions, flood-prone areas, existing and projected water quality in water management district operated facilities, as well as surface water run-off characteristics and topography regarding flood plains, wetlands, and recharge areas. Section 373.0391(2)(e) requires water management districts to submit to local governments a description of groundwater characteristics, including existing and planned well field sites, existing and anticipated cones of influence, highly productive groundwater areas, aquifer recharge areas, deep well injection zones, contaminated areas, and assessment of regional water resource needs and sources for the next twenty years and water quality. Section 373.0391(2)(f) requires the water management districts to submit to local governments the identification of existing and potential water management district land acquisitions. Section 373.0391(2)(g) requires water management districts to submit to local governments information reflecting the minimum flows for surface watercourses to avoid harm to water resources or the ecosystem and information reflecting the minimum water levels of aquifers to avoid harm to water resources or the ecosystem.

113. FLA. STAT. § 373.3184(3) (2001).

114. *Id.* § 373.3184.

DCA uses the water management district comments to determine whether to comment on, or object to, the proposed plan or plan amendment.<sup>115</sup> The effectiveness of this “review and comment” process as implemented has been questioned. Often, by the time a comprehensive plan amendment is transmitted for review and comment, it is too late to effectuate any significant changes. Instead, water management planning staffs may be more effective in working with local governments earlier in the process to provide expertise, data, and guidance in plan development.<sup>116</sup> This process will likely change based on the current draft of the Growth Management Study Commission Report (Report). The most recent Report of the Commission recommends eliminating the DCA oversight role except with regard to “compelling state interests.”<sup>117</sup> Moreover, the Report identifies the Department of Environmental Protection as the overseer on the compelling State interest of natural resources of statewide significance.<sup>118</sup>

### *G. The Integration of Planning and Local Government Regulations Into Water Management District Permitting*

In addition to the role that planning plays in water management and the role that water management plays in planning, as discussed above, local government land use regulations and comprehensive plans are integrated into water management district permitting requirements in some specific instances. Although, there is no overriding policy that water management district permitting decisions must be consistent with local government plans or land development approvals, there are at least five instances where local government plans and land use regulations are required to be considered in making ERP determinations. References to local government plans or land use regulations appear in several St. Johns River Water Management District ERP rules.

For example, Rule 9.1.3 of the St. Johns River Water Management District ERP Applicant’s Handbook (Handbook)<sup>119</sup> provides that local government ordinances must be used to evaluate the potential flood damages to a structure under an ERP application review. Rule 12.2.7 of

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115. *Id.*

116. One such program for early involvement is the St. Johns River Water Management District’s “WaterSmart Communities” program. This program is designed for local and State elected and appointed officials to highlight issues, share strategies, and identify resources.

117. See FLORIDA’S GROWTH MGMT. STUDY COMM., *supra* note 68, at 9-10.

118. *Id.* at 11.

119. The ERP Applicant’s Handbook has been incorporated by reference as a rule pursuant to FLA. ADMIN. CODE ANN. R. 40C-4.091 (2000).

the Handbook provides that local government land use regulations and comprehensive plans must be taken into account in assessing secondary impacts under the ERP rule. Similarly, under Rule 12.2, local government land use regulations and comprehensive plans must be taken into account in a cumulative impact analysis under the ERP rules.

Local government land use restrictions are also part of the evaluation of the value to be given to preservation mitigation under Rule 12.3.2.2 of the Handbook. Finally, with regard to the Wekiva River Protection Area, Rule 11.3.6 of the Handbook provides that the district shall not issue an ERP until the appropriate local government has provided written notification to the district that the proposed activity is consistent with the local comprehensive plan and is in compliance with land development regulations.<sup>120</sup> It should be noted that the requirement for a determination of consistency with the local government plan and regulations is unique to the Wekiva River Protection Area and does not appear anywhere else in the district's rules. The authority for this requirement is derived from section 369.305 of the Florida Statutes, which prescribes very specific requirements for land use planning and regulation in this basin.<sup>121</sup> Similar statutory provisions do not exist for other basins.

Although there is generally no requirement that water management district regulations or permits be consistent with local government plans and regulations, there is an indirect consistency requirement. The flow chart in Illustration 1 identifies the various consistency requirements and other connections between water management and planning. As is apparent from Illustration 1, the State comprehensive plan mandated by section 186.007 of the Florida Statutes, and adopted in section 187.201 forms a penumbra over all water management and local government planning and regulation.<sup>122</sup> All planning and regulation ultimately must be consistent with the State comprehensive plan.<sup>123</sup> Local government land development regulations must be consistent with local comprehensive plans, which must be consistent with regional policy plans, and ultimately with the State comprehensive plan.<sup>124</sup> Similarly, water management district plans, including water supply plans, must be consistent with both the State water plan and the State water policy in Chapter 62-40 of the Florida Administrative Code, both of which must be consistent with the State

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120. Rule 11.3.6, St. Johns River Water Management District ERP Applicant's Handbook.

121. FLA. STAT. § 369.305 (2001).

122. FLA. STAT. §§ 186.007 & .201 (2001).

123. *Id.* §§ 186.007, 187.201.

124. FLA. STAT. §§ 163.3202, .3194(1), .3174(1), .3177(9)(c), 186.507, .508, & .007.

comprehensive plan.<sup>125</sup> Water management district CUP and ERP must be consistent with the State water policy and ultimately with the State comprehensive plan.<sup>126</sup> Thus, indirectly, each of these planning and regulatory programs must be consistent. As discussed above, the most recent draft of the Report recommends an elimination of the State comprehensive plan, which would eliminate the existing consistency requirements, tenuous as they might be.

## V. SUGGESTIONS FOR IMPROVING THE INTEGRATION

In recent years, numerous improvements for the integration of water management and land use planning have been suggested.

A commonly held view is that local government plans mandated under Chapter 163 of the Florida Statutes have not adequately addressed water supply concerns, because they focus on the availability of water facilities instead of addressing the adequacy of the water supply in a particular area.<sup>127</sup> One of the most frequently raised suggestions for improving integration is to create a concurrency link between land development and available water supply, rather than limiting the concurrency requirements to available water facilities.<sup>128</sup> This link could provide the benefit of ensuring that development is not allowed in areas that do not have the supply of water to support it. Nevertheless, as discussed above in the description of the water supply planning process, in most circumstances, water supply will not limit growth. Where the economics of growth can support it, technological solutions such as desalination can be used to make potable water available.

To a great extent, the availability of a water supply is driven by technological and economic considerations — i.e., if the economics are there, alternative technological solutions will be found. Thus, although such a concurrency requirement would ensure sufficient water supply to support growth, it should not be used as a substitute for good planning. A system that relies solely on water supply as the limiting factor for growth will fail. Waiting until the point is reached where water supply needs will

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125. *Id.* § 373.036; FLA. ADMIN. CODE ANN. R. 62-40 (2001).

126. FLA. STAT. § 373.036.

127. Dana L. Crosby, *Water, Water, Everywhere, But Not Enough to Drink?: A Look at Water Supply and Florida's Growth Management Plan*, 12 J. LAND USE & ENVTL. L. 153 (1996).

128. See AN AMERICAN ASSEMBLY THE STATE OF LAND AND WATER, FORGING STRONGER LINKAGES, *supra* note 65, at 8 (“with respect to water, the concurrency requirement in the local government comprehensive planning process has emphasized the capacity of potable water treatment and distribution systems rather than the availability of raw water resources”).



result in over-pumping and drying up of wetlands is too late. Frequently, long before water supply limits are reached, intense development has already impacted water resources through direct impact to wetlands. Local governments should make decisions about “what” type, “where,” and “when” they desire growth in their communities. Water supply is only one factor to be considered in making such a determination.

A second, often-mentioned suggestion for improving the integration of water management and land use planning is the recommendation that water management districts should not approve the ERPs for residential or commercial development unless the proposed project has been approved by the local government and is consistent with the local government comprehensive plan.<sup>129</sup> As described above, except for the Wekiva River Protection Area, the water management district rules and statutes do not even require consistency with comprehensive plans or local government land use regulations, let alone require prior local government approval. Requiring all local government approvals prior to obtaining an ERP would eliminate the problem of developers obtaining an ERP for a land use that is inappropriate or inconsistent with the local plan and then using such ERP approval to pressure local governments to make land use changes. Frequently, developers come to water management districts for approval of a project that is not consistent with the local government comprehensive plan. Then the developers use the water management district approval as leverage to convince the local government to change the plan to allow the land use. The developer may use the ERP approval as evidence that the project is “environmentally sound,” ignoring the fact that meeting permitting criteria does not necessarily mean that the project is in an appropriate location and is an appropriate land use type or density from a planning standpoint.

A third way to improve integration is by integrating water management district regional water supply plans into local government land use decisions. Under this approach, local government plans, plan amendments, and development orders would be required to be supported by accepted water supply options identified in the regional water supply plan. This would be an effective mechanism for implementing the identified options in the water supply plan. Local governments could bring together the work done by water management experts in identifying water supply options and integrate the work with the local government’s own community objectives for growth management and natural resource protection. This integration

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129. TERRELL K. ARLINE, *THE LINK BETWEEN COMPREHENSIVE PLANNING AND ENVIRONMENTAL PERMITTING* (1999) (prepared as an update to a Florida Bar Continuing Legal Education Course).

will ensure that growth is directed to appropriate locations with adequate water supply. The information developed in the water management districts' water supply plans can help local governments make smart land use decisions.

A final recommendation for improving integration is to better coordinate State, water management districts, and local government land acquisition programs with land use planning. As Dr. Lance deHaven-Smith has opined:

The biggest growth management problem facing Florida is the tendency for urbanization to come too close to, or to actually move into and on top of, its large, water-dependent ecosystems. Drainage, polluted run[-]off, high-nitrogen run[-]off, altered water cycles, and over-consumption of ground water have disrupted these ecosystems on a huge scale.<sup>130</sup>

State and water management district land acquisition programs and less-than-fee (i.e., conservation easement) purchases should be used to complement local government land use planning. Areas that are identified by local government, water management, and statewide planning as important for natural resource conservation, water supply, aquifer recharge, and stormwater management should be the target of acquisition programs. Important natural resource conservation areas could be purchased in fee, with less-than-fee purchases creating a buffer of silviculture or agriculture around the conservation area. Then local government land use planning could be used to direct high density, or otherwise inappropriate land uses, away from the areas adjacent to the less-than-fee buffers. In this way, the areas with the most significant natural resources will have maximum protection. Using this same

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130. Dr. Lance deHaven-Smith, *Facing Up to the Political Realities of Growth Management*, 12 FLA. PLANNING, no.5 (2000). Dr. deHaven-Smith advocates expansion of the areas of critical State concern (ACSC) program and focusing land acquisition programs on purchasing land and development rights in or around these designated areas. Dr. deHaven-Smith does not believe that growth is the problem. He maintains that Florida has plenty of water and plenty of land and does not need to limit growth or even slow it down. The central growth management problem facing Florida is neither the pace and amount of growth nor a poorly planned and inadequately capitalized built environment, but the improper location of development in and around the State's large water-dependent ecosystems. The prohibition against designating more than a certain percentage of the State's land as ACSC should be eliminated. Also, the State's land acquisition programs should be tied more tightly to the ACSC program. The aim should be to use strategic land purchases and purchases of development rights to buffer ACSC from urbanization.

approach, aquifer recharge areas, well fields, and other important water resource areas could also have substantial protection.

## VI. CONCLUSION

As can be seen from this Article, significant links between water management and land use planning in Florida currently exist in statutes, regulations, and practice. Water management regulation and land use planning serve very different purposes and both are needed for effective protection of Florida's unique water resources. Water management regulation cannot serve as a substitute to good land use planning. Instead, both water management regulatory and nonregulatory efforts and land use planning must work hand-in-hand. There are several opportunities for improving upon the existing linkages between the two. For example, a concurrency link between development and water supply availability, requiring water management district permit approvals to be consistent with local comprehensive plans and land use regulations, improving the integration of water management district regional water supply plans into local government land use decisions, and improving coordination between land acquisition and land use planning programs. For effective water resource protection to continue, however, local governments will have to make tough choices in determining where and how to direct growth, and water managers and land use planners will have to continue to find ways to work together to accomplish these goals.



