Preliminary Discussion Draft

REFORMING
THE FLORIDA WATER RESOURCES ACT OF 1972
BEYOND THE FIRST 35 YEARS

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What they think

Where Did Our Water Go? Give the law a chance

Mary Jane Angelo

Richard C. Hamann and Christine A. Klein, special to the sentinel

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What will Florida's water future look like? Will we yield to pressures to support unsustainable consumption and growth? Or, will we protect our waters for current and future needs?

Florida is one of the wettest states in the nation -- enjoying an average annual rainfall of more than 50 inches -- but we are facing imminent water shortages in some regions. How can that be?

Florida was once one of the swampiest states in the country -- expending vast amounts of effort and money on drainage projects -- but we are now struggling to restore the Everglades, our springs and other aquatic resources. How can that be?

Florida sits atop one of the most productive aquifers in the world -- the Floridan Aquifer, which extends for about 100,000 square miles beneath Florida and neighboring states. Altogether, it is estimated that more than a quadrillion gallons of fresh groundwater percolates below Florida -- more than beneath any other state. But utilities in Central Florida are running short of available groundwater. How can that be?

In fact, Central Florida utilities have looked northward to the St. Johns and Ocklawaha Rivers, proposing to divert more than 200 million gallons per day at an estimated cost of $800 million to $1.2 billion. The plans triggered a firestorm of criticism.

The primary causes of our water woes can be stated simply: over-consumption, over-drainage and unsustainable growth.

But first let's consider something that is not the source of the problem: Florida's water law.

The Florida Water Resources Act of 1972 has been widely recognized as one of the most comprehensive and progressive water-regulatory systems in the nation. The statute draws upon a model water code drafted by professors from the University of Florida Levin College of Law.

But when we begin to look carefully at Florida's water future, will we blink? Will we give our water law, enacted only 30 years ago, opportunity to work? Or will we cave in to political pressure and to an endless

push for unsustainable development?

We offer the following suggestions:

We can plan to build statewide infrastructure capable of moving water across county and watershed lines to accommodate endless growth. Or, we can focus our efforts on conservation, the most-efficient method of meeting our needs. Sarasota County has reduced its per-capita usage to about 96 gallons per day, almost 40 percent below Florida's statewide average of 158 gallons.

We can continue to issue new water permits, even in places where the water resources cannot tolerate more stress, hoping that our permit conditions will minimize harm. Or, we can learn to say "no" when appropriate. The South Florida Water Management District did just that last year, denying water-use permits to St. Cloud and Orange County to withdraw surface water from the Kissimmee River.

We can continue to over-drain the landscape. Or, we can maintain and restore natural storage areas, including flood plains, wetlands and surficial aquifers.

We can continue to hope that a "free market" in water rights will solve Florida's water problems, even though it has never worked well in other states. We can continue to look the other way while water permits are traded in some parts of the state, or we can address the issue head-on.

Will we blink?

On Thursday and Friday, we will have an important opportunity to face the future with our eyes wide open. On those days, more than 100 of the state's water leaders will meet under the auspices of the Century Commission, a strategic-planning commission appointed by the governor to help outline Florida's future growth and development. Their goal will be to develop a comprehensive set of sustainable water use and supply "action steps."

As members of the current generation of law professors from the University of Florida, we will join in this discussion. As we step into the very large shoes of our predecessors, we offer what we hope are common-sense, workable solutions to Florida's water challenges.

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Introduction

The *Florida Water Resources Act of 1972*[1] has been widely recognized for its creation of one of the most comprehensive and progressive water regulatory systems in the nation. The statute was based upon *A Model Water Code*,[2] drafted by University of Florida Levin College of Law professors Frank E. Maloney (former dean), Richard C. Ausness, and J. Scott Morris. Writing over three decades ago, the authors asserted that the country was "in the early stages of a water crisis." In the authors' view, the crisis would be triggered by a "population explosion" and the escalating water demands of citizens, industry, and agriculture—all coupled with a growing societal awareness of the importance of protecting the natural environment through maintenance of streamflows and groundwater levels.

Those observations proved to be prescient. An impending water crisis continues to threaten Florida, the United States, and other nations. Additionally, the crisis may be exacerbated by a threat unforeseen by Maloney and his colleagues: climate change.

The *Water Resources Act* laid a durable foundation for the first generation of statutory water law in Florida. As members of the next generation of law professors from the University of Florida, we offer our observations on forthcoming water challenges, together with potential tools to address those challenges. As we step into the very large shoes of our predecessors at the law school, we pay homage to those who came before us. We view this paper as a "preliminary discussion draft," which we hope will serve as a starting point for discussions with government leaders, business and agricultural interests, environmental interests, and citizens concerned with finding workable solutions to Florida's water challenges.

In particular, we have identified five challenges for the next generation of Florida water law, and we offer recommendations to improve the law in each of those areas: 1) consumptive use permitting (reforming the public interest test), 2) water for the environment (minimum flows and levels & reservations), 3) water supply and growth management, 4) water transfers, and 5) water markets.

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1 1972 Fla. Laws ch. 299, codified as FLA. STAT. ch. 373.

2 FRANK E. MALONEY ET. AL., A MODEL CODE (University of Florida Press 1972).

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Consumptive Use Permitting

Reforming the Public Interest Test

ACTION LIST 1

- Clearly define the "public interest," using the benchmark of sustainability and emphasizing broad community concerns
- Specify that uses in Water Use Caution Areas must be "clearly in the public interest"
- Establish a list of water uses that are presumed to be consistent with the public interest
- Link the public interest test to land use planning (e.g., establish a presumption that proposed uses inconsistent with the local comprehensive plan or lacking all necessary land development approvals are contrary to the public interest)

OVERVIEW

The *Water Resources Act of 1972* establishes a three-part test for permitting the consumptive uses of water. To obtain a Consumptive Use Permit ("CUP") (also referred to as a "Water Use Permit" or "WUP"), an applicant must establish that, 1) the proposed use is a reasonable beneficial use, 2) the use will not interfere with existing legal users of water, and 3) the proposed use is consistent with the public interest.[3] Most permitting decisions are made primarily using the first two elements of the test. As a result, the meaning of the "public interest" element of

[3] FLA. STAT. § 373.223(1).

this test, or how it should be applied, has never been clearly articulated either by the legislature or the water management districts ("Districts" or "WMDs"). It has only been recently that the issue has come to the fore, as water resources have been stretched to their limits in many parts of the state and as conflicts have arisen over proposed interbasin water transfers, the permitting of inefficient uses of water, and the development of bottled water facilities.

EXISTING LAW

Statutory law: The *Water Resources Act* does not define the phrase "consistent with the public interest." Nevertheless, the phrase appears in several contexts throughout the statute, providing limited guidance as to its meaning. In the context of consumptive use permitting, the statute defines the first prong of the test ("reasonable-beneficial use"), in part, in terms of the third prong of the test (the public interest). That is, "reasonable-beneficial use" is defined as "the use of water in such quantity as is necessary for economic and efficient utilization for a purpose and in a manner which is both reasonable and consistent with the public interest."[4]

Statutory guidance on the meaning of the public interest appears also in the context of the transport and use of water across county boundaries. For example, in determining whether such inter-county transfers are "consistent with the public interest," the Districts must consider a number of specified factors.[5] While several of the listed factors directly relate to issues specific to transporting water from one county to another, some of the factors address the issue of what is consistent with the public interest in a more generic way. For example, one factor is whether alternatives to the proposed source, including but not limited to, desalination, conservation, reuse of nonpotable reclaimed water and stormwater, and aquifer storage and recovery are economically and technically feasible. This factor could apply to determining whether any proposed use, trans-county or not, is consistent with the public interest.

Other tangential references to the requirement that certain water uses be consistent (or in some cases, not contrary to) the public interest appear in the context of "reservations" of water,[6] preferred water supply sources,[7] interdistrict transfers of groundwater,[8] competing applications,[9] and reuse of reclaimed water.[10]

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4 FLA. STAT. § 373.019(16). *See also*, FLA. ADMIN. CODE § 62-40.210.

5 FLA. STAT. § 373.223(2 & 3).

6 FLA. STAT. § 373.223(4). The issue of reservations is discussed in Part 2 of this paper.

7 FLA. STAT. § 373.2234.

8 FLA. STAT. § 373.2295.

9 FLA. STAT. § 373.233.

10 FLA. STAT. § 373.250.

Administrative rules: Only one District has adopted a definition of "public interest" in the context of CUP permitting. The St. Johns River Water Management District has by rule defined "public interest" to mean "those rights and claims on behalf of people in general."[11] The rule provides that "[i]n determining the public interest in consumptive use permitting decisions, the Board will consider whether an existing or proposed use is beneficial or detrimental to the overall collective well-being of the people or to the water resources in the area, District and the State."[12] District regulations also provide that "[t]he public interest requires protection of the water resources from harm"[13]and that "[p]ollution of wellfields is inconsistent with the public interest as well as not reasonable-beneficial."[14]

Two other Districts provide helpful guidance as to the meaning of the "public interest," although their regulations stop short of defining the phrase. The regulations of the South Florida Water Management District (SFWMD) state that "[t]he public interest requires protection of the water resources from harm"[15] and that "[t]he encouragement and promotion of water conservation and use of reclaimed water are state objectives and considered to be in the public interest."[16] In addition, the Northwest Florida Water Management District has by rule stated that in identified water caution areas, new and expanded uses of the Floridan Aquifer for golf courses or landscape irrigation or other non-potable uses are determined not to be in the public interest.[17]

Finally, in the context of groundwater in central Florida, three Districts—the South Florida Water Management District, the Southwest Florida Water Management District, and the St. Johns River Water Management District—have worked together to develop a rule that specifically addresses "concerns over the increasing stress to the water resources in Central Florida and the unsustainability of continued and escalating development of traditional groundwater sources."[18] The Districts' long-term water supply planning coupled with CUP data indicated that "harm to the water resources would occur unless supplemental water supplies are expeditiously developed to meet growing water supply and other demands..." One articulated objective of the rule is to "protect the public interest in providing

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[11] St. Johns River Water Management District, *Consumptive Use Permitting Applicant's Handbook* § 9.3.

[12] *Id.*.

[13] *Id.* at § 12.1.2(a).

[14] *Id.* at § 13.0.

[15] South Florida Water Management District, *Basis of Review* § 3.2.1.F.1.

[16] *Id.* at § 3.2.3.2.

[17] FLA. ADMIN. CODE. § 40A-2.802(1)(b).

[18] St. Johns River Water Management District, *Consumptive Use Permitting Applicant's Handbook*, § 12.1.2; South Florida Water Management District, *Basis of Review*, § 3.2.1(F).

adequate supplies while preventing harm to the water resources." The rule establishes an interim regulatory framework that requires avoidance and mitigation measures to prevent harm, as well as the implementation of supplemental water supply projects, which include surface water, stormwater, reclaimed water, and in certain circumstances, brackish groundwater.

Judicial opinions: Perhaps the most helpful application of the public interest prong appears in *Southwest Florida Water Management District v. Charlotte County* ("SWUCA").[19] In SWUCA, the Court held that the District had "authority to require WUP applicants to investigate desalination and implement it where feasible as part of the reasonable-beneficial and public interest prongs of the three-prong test under section 373.223 and "'[c]onsideration of a utilities' conservation efforts, including its rate structure, is appropriate in determining water allocations and applying the . . .[reasonable-beneficial use] and . . . [public interest] elements of the three-prong test of section 373.223(1)."'

Helpful guidance is also provided by *Marion County v. Greene and SJR District.*[20] The Governing Board of the St. John's River Water Management District adopted the majority of the Administrative Law Judge's recommended order, including the following interpretations of the "public interest" prong: 1) the Districts should not consider local government approvals or non-water related impacts in their public interest test considerations because these considerations are not part of the Districts' "adopted permitting criteria;" 2) "examining whether an application is consistent with the public interest, the District should consider whether a particular use of water is going to be beneficial or detrimental to the people of the area and to water resources in the state;" 3) as part of this public interest test inquiry, the District should consider the efficiency of the proposed use of water, the need for the requested water, whether the proposed use is for a "legitimate purpose," and the "impact of the [proposed] use on water resources and existing legal users;" 4) the Districts should not consider the level of financial gain or benefit an applicant will derive from a permitted use of water for purposes of determining whether the proposed use is consistent with the public interest" because the Districts' "rule criteria do not provide" such standards for evaluating these factors; and 5) the Districts' permitting decision must be based on Chapter 373 of the Florida Statutes, and is independent of any additional approvals that may be required by local or other governmental entities (i.e., land use approvals that consider other impacts which are unrelated to the consumptive use of water). Nevertheless, the Final Order

[19] 774 So.2d 903 (2001).

[20] *Final Order,* DOAH case No. 06-2464 (2007).

goes on to note that the District previously had considered the "denial of local land use approval as evidence in determining whether the applicant has provided reasonable assurance of need under Rule 40C-2.301(4) (a), part of the District's . . . [reasonable-beneficial use] criteria," but that this use of a local decision "is evidence, not a criterion."

A Model Water Code: As its name implies, *A Model Water Code* is simply a model, not rising to the level of legal mandate. Nevertheless, as the inspiration upon which Chapter 373 is based, the Code might be viewed as a type of legislative history that can provide a window into the minds and intentions of the Florida legislature that enacted the *Water Resources Act.* The Code clearly contemplates a distinction between the "public interest" and the interests of individual water users. For example, the *Code* declares that certain uses of water are in the public interest, including protection and procreation of fish and wildlife, maintenance of proper ecological balance and scenic beauty, and the preservation and enhancement of waters of the state for navigation, public recreation, municipal uses, and public water supply.[21] Such uses provide *direct* benefits to the public at large, rather than *indirect* benefits that accrue to the public as a result of economic benefits enjoyed by individual entities. Thus, the *Code* safeguards broad, collective interests through the "public interest" test.

In contrast, the *Code* protects narrower, individual interests through the "reasonable-beneficial use" test. The *Code* makes clear that the collective "public interest" uses comprise a separate class of water uses than the individual "beneficial uses."[22] The latter class includes domestic uses, irrigation power development, and industrial uses. This distinction is reinforced by the *Code's* "conditions for a permit," which provides that a proposed use that is otherwise valid should be denied a consumptive use permit if it would be in conflict with the public interest, as by having an unreasonably harmful effect on fish or wildlife.[23] Moreover, the *Model Water Code* recognizes that difficult choices over what uses are in the public interest are not needed in places where water is plentiful. In places where water is in short supply and therefore where users are competing for the same water, the public interest component of the test becomes much more significant.

[21] *Model Water Code,* § 1.02(3).

[22] *Model Water Code,* § 1.02(3) (commentary).

[23] *Model Water Code,* § 2.02(1) (commentary).

STRENGTHS OF THE CURRENT APPROACH

The public interest test provides an important counter-weight to the reasonable-beneficial use test. Whereas the latter is narrow and individual, the public interest test is broad and community-oriented. The public interest test holds the potential of providing the authority and flexibility for Districts to make difficult decisions regarding the allocation of limited water resources. In its current form, the public interest prong provides broad authority and flexibility and can be used as a gap-filler to deny consumptive use permits for inappropriate uses of water, even in circumstances where the other two prongs would allow a permit to be issued.

LIMITATIONS OF THE CURRENT APPROACH

Unlike many states which consider the reasonableness of proposed water uses in isolation from one another, Florida has a statutory mechanism that allows it to consider the broader social and environmental ramifications of individual uses. But, Florida's public interest test has failed to live up to its full promise, in part because the legislature and the Districts have failed to provide a clear definition of the "public interest." As a result, decision-makers tend to conflate the public interest test with the reasonable-beneficial use test, or to ignore it altogether. Moreover, when the legislature has focused on the public interest, it has done so through a piecemeal approach. For example, recently the legislature amended chapter 373 to provide a presumption that a use is in the public interest if a water management district identifies the use as an "alternative source" of water.[24] However, in making the determination of whether a source should be considered an alternative source, the District is not directed to look broadly at public interest considerations.

PROPOSALS FOR REFORM

Clearly define "public interest" using the benchmark of sustainability and emphasizing broad community concerns

To realize the test's full potential, the public interest element should be clarified to assist the Districts in making the inevitable difficult choices regarding how Florida's water will be used based on the extent to which that use benefits the public at large rather than merely benefiting the individual user. For example, a clearly defined public interest test could help to answer the question of whether a District should

[24] FLA. STAT. § 373.223(5).

issue a permit for a water withdrawal for bottled water—a product that potentially constitutes a reasonable-beneficial use—weighing such factors as whether or not the withdrawal will create jobs in the source region, the relative health of the economy in the area, and the degree to which water resources are of limited availability.

The definition should emphasize sustainability as the benchmark of the public interest, and clearly distinguish broad community concerns (relevant to the public interest test) from individual interests (relevant to the reasonable-beneficial use test). One efficient approach would be for each of the Districts to revise its rules to incorporate the St. Johns River Water Management District's definition. In addition, the Districts could provide a list of factors to be considered in making the public interest determination. For example, a rule interpreting the public interest prong could be drafted as follows:

> The public interest means those rights and claims on behalf of people in general. In determining the public interest in consumptive use permitting decisions, the Board will consider whether an existing or proposed use is beneficial or detrimental to the overall collective well-being of the people or to the water resources in the area, District, and the State. In making such a determination, the Board shall consider the following factors:
>
> (1) Whether the use promotes or enhances protection of the water resources of the state, including promoting or enhancing protection of future water availability;
>
> (2) Whether the use promotes or enhances protection of public health and safety;
>
> (3) Whether the use includes substantial water conservation measures;
>
> (4) Whether the use promotes or enhances the reuse of reclaimed water;
>
> (5) Whether the use includes substantial energy conservation measures;
>
> (6) Whether the use is economically beneficial to the collective good of the public as a whole in the area, District, or State. An example would be a proposed use that generates a large numbers of new jobs, as opposed to a use that provides a direct economic benefit only to a small number of individuals or entities.

Specify that uses in Water Use Caution Areas must be "clearly in the public interest"

Another approach could be to follow the approach taken in Part IV of chapter 373 with regard to making public interest determinations for purposes of environmental resource permitting ("ERP"). Section 373.414 sets forth a seven-part public interest balancing test for ERP decisions involving activities in, on, or over water

or wetlands. Depending on whether the activity is proposed in an Outstanding Florida Water ("OFW"), the applicant must provide reasonable assurances that the proposed activity will not be contrary to the public interest (for activities not in OFWs) or clearly in the public interest (for activities in OFWs). A similar approach could be established for CUP decision-making, wherein activities proposed in areas designated by Districts as Water Use Caution Areas must be clearly in the public interest and activities proposed in other area must merely be consistent with the public interest based on the balancing of a number of factors. Such factors could include: The extent to which the use is sustainable and protects future water availability; effects on fish, wildlife and other ecological resources; effects on recreation; the extent of water conservation; the extent of efficient use of water and energy; the extent to which the use benefits the general population of the state, region or local government; the extent to which the use serves a purely public purpose such as fire protection or other public safety and welfare benefits. As with the public interest balancing test of Part IV of Chapter 373, Districts would be required to conduct a public interest balancing using the articulated factors whenever determining whether to issue a CUP. For CUPs proposed in water resource caution areas, the balancing must demonstrate that the proposed use is "clearly in the public interest" for the permit to be issued.

Establish a list of water uses that are presumed to be consistent with the public interest

Although the Model Water Code does not establish a water use preference system, it does include a standard for water management districts to apply when two or more water users are in competition for the same water. In such a situation, the *Model Code* and the *Water Resources Act* require the Districts to approve that application which "best serves the public interest."[25] The commentary to the *Code* section explains that in making such a choice, the Districts must determine the relative benefits to be derived by the public from the proposed uses of water. The commentary goes on to list the types of water uses that should be afforded preference due to their serving the public interest. For example, uses by governmental agencies should be preferred over private users. Moreover, economically more productive uses should be preferred over uses that would not be as beneficial to the economy of the area. Thus, the *Model Code* makes clear that the inclusion of the public interest test was intended to ensure that the waters of Florida be used in ways that benefit the public as a whole, rather than merely providing

[25] FLA. STAT. § 373.233.

economic benefits to individuals or small groups of individuals. Where water resources are scarce, as is currently the case in many of the highly populated areas of the state, the uses that benefit the public as a whole are to be favored over other uses. Thus, the *Code* contemplates that the public interest test would trump the reasonable-beneficial use test in cases of shortage.

To carry out the intent of the *Model Code*, additional guidance could be provided regarding what types of uses are "preferred" as being in the public interest. Part of this approach could be to provide "preference" factors. For example, a rebuttable presumption could apply to "preferred uses," derived from the *Model Code*, which could include uses articulated as being in the public interest in the *Model Water Code* as well as recognition of current needs for water and energy efficiency. A list of preferred uses that are presumed to be consistent with the public interest provided that they do not otherwise cause harm to the water resources or to the public could be developed. Such preferred uses could include uses such as:

(1) Uses for the protection of fish and wildlife, including listed species, or for the protection, management, or restoration of ecosystems,
(2) Uses for the protection of the water resources of the state;
(3) Uses for flood protection;
(4) Other governmental uses that are for the collective good of the public as a whole, such as fire protection or other protection of the public health.

Link the public interest test to land use planning (e.g., establish a presumption that proposed uses inconsistent with the local comprehensive plan or lacking all necessary land development approvals are contrary to the public interest)

The water management districts are not the only governmental entities charged with protecting the "public interest." In the context of land use planning, for example, local governments have broad authority to plan and to protect the public interest of their communities in ways that extend beyond pure water resource considerations, as through the development of comprehensive plans and the permitting of proposed development. Because land use and water use are intimately related, the "public interest" in land use should be linked to the "public interest" in water use to more effectively and efficiently protect the broader public interest.

This linkage could be accomplished through either agency rulemaking or through legislative action. Substantively, the public interest prong of the consumptive use permitting criteria could be defined broadly, as coterminous with the public interest in land use planning. Alternatively (or additionally), new rules

or laws could provide explicitly that proposed water uses that do not have local government approval or are inconsistent with local government comprehensive plans are presumed contrary to the public interest for purposes of water use permitting. For example, such a rule could provide:

> Any proposed water use which has not obtained all necessary local government land development approvals or is not consistent with the local government comprehensive plan is presumed to be contrary to the public interest.

It is important to recognize that *Marion County v. Greene and SJR District*[26] regarded local land use approval as simply "evidence" that a proposed water use satisfied the reasonable-beneficial test, falling short of an independent "criterion." However, the final order suggests that it wou ld be permissible for the District to elevate the significance of local land use approval through a revision of its permitting criteria, without resort to a legislative amendment. Nevertheless, even if a legislative change is found to be required to accomplish this linkage, such a change could provide a critical component to protecting the public interest in a comprehensive, efficient, and effective manner.

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[26] *See supra* note 19.

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Water for the Environment

Strengthening MFLs and Reservations

ACTION LIST 2

- Define "significant harm"
- Measure "significant harm" in terms of context as well as intensity
- Apply consistent standards to surface watercourses and groundwater, considering "the ecology of the area" when establishing both minimum flows and minimum levels
- Require water supply plans to identify options for maintaining or restoring the sustainability of natural systems and other nonconsumptive uses
- Legislatively authorize agencies to reserve water for the protection or "restoration" of natural systems

OVERVIEW

The criteria for consumptive use permitting provide protection against adverse impacts to natural systems, but their application on a case-by-case basis has resulted in declining wetlands, rivers, lakes, springs, and estuaries in large parts of the state. The *Water Resources Act* provides several means for comprehensively identifying and protecting the water needed to sustain natural systems, but none has been fully implemented and all are subject to significant limitations and uncertainties regarding interpretation.

The first statutory tool—minimum flows and levels ("MFLs")—requires

the establishment of MFLs to protect water resources from "significant harm." The second statutory tool provides for water "reservations," allowing water to be reserved from use by permit applicants for the protection of fish and wildlife, as opposed to the prevention of significant harm.

EXISTING LAW: MFLS

Under the *Water Resources Act of 1972*, the Florida Department of Environmental Protection (DEP)[27] and the five regional water management districts[28] were charged with the duty to establish minimum flows and levels for all waters in the state.[29] Over thirty years later, the fundamental statutory authority remains the same. Minimum flows for surface watercourses are to be established as "the limit at which further withdrawals would be significantly harmful to the water resources or ecology of the area."[30] Notably, for minimum levels of groundwater, the statutory language differs slightly, containing no reference to ecological harm: minimum water levels are to be established at a level "at which further withdrawals would be significantly harmful to the water resources of the area."[31] Minimum flows and levels must be "calculated. . . using the best information available" and can reflect "seasonal variations."[32] In establishing MFLs the agencies are required to "consider. . . the protection of nonconsumptive uses" and have the discretion to provide for their protection.[33]

For a variety of reasons, however, the requirements of the 1972 legislation were not implemented in a timely fashion. In 1993 citizens prevailed in a lawsuit to require the St. Johns River Water Management District to establish minimum levels for a number of lakes.[34] A series of executive orders and legislative changes followed, culminating in significant modifications in 1997 to the statutory framework.[35]

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27 Authority under the WRA was originally given to the Florida Department of Natural Resources, transferred to the Department of Environmental Regulation in 1975 and consolidated in the Department of Environmental Protection in 1993.

28 The authority to adopt MFLs has been delegated to the water management districts by DEP, Rule 62-113(12)(a), Florida Administrative Code, and therefore references to DEP will be limited to those provisions it actually implements.

29 FLA. STAT. § 373.042 (2007).

30 FLA. STAT. § 373.042(1)(a) (2007).

31 FLA. STAT. § 473.042(1)(b) (2007).

32 FLA. STAT. § 473.042(1) (2007).

33 *Id.*

34 Concerned Citizens of Putnam County for Responsive Govt. v. St. Johns River Water Mgmt. Dist., 622 So. 2d 520 (Fla. 5th DCA 1993). In 1988, the Florida Legislature required the development of MFLs for the Wekiva River System. 1988 Fla. Laws chs. 121, 393.

35 Pinellas County, Florida v. Southwest Florida Water Mgmt. Dist. (Final Order, FLWAC, 2/13/96); Office of the Governor, Executive Order 96-297; 1996 Fla. Laws ch. 339 (ordering districts to develop priority lists

While the basic requirements set forth above remain in force, there were significant modifications. Each water management district is required to adopt a priority list of waters for the adoption of MFLs. This precludes citizens from forcing the adoption of MFLs for a particular body of water. Citizens can, however, require independent scientific peer review of "all scientific or technical data, methodologies, and models, including all scientific and technical assumptions employed in each model."[36] The peer review report is admissible as evidence in any administrative proceedings challenging the MFL.

Significant harm: The fundamental purpose of an MFL is to prevent withdrawals from causing "significant harm" to the water resource values set forth in the Water Resource Implementation Rule.[37] DEP and the water management districts must determine the point at which harm becomes "significant." The Water Resource Implementation Rule provides no guidance for this decision.

The South Florida Water Management District has devoted considerable rulemaking attention to defining "significant harm" within a hierarchy ranging from "harm" to "serious harm."[38] The *Water Resources Act* uses each of those terms in connection with a different regulatory measure. Consumptive use permitting is authorized in order to ensure use of water is "not harmful to the water resources of the area."[39] In contrast, MFLs are established to prevent "significant harm." In a third context—droughts or other water shortages—restrictions may be imposed to prevent "serious harm."

Under the District's interpretation, water resources should be given the greatest level of protection in the criteria for consumptive use permitting. No "harm" should be allowed through permitted consumptive use. The MFL should act as a backstop to the permitting system, establishing additional limits but accepting a greater level of harm. During droughts, additional restrictions may be imposed to prevent the most severe degree of injury, "serious harm."[40]

and begin developing MFLs throughout the state); 1997 Fla. Laws ch. 160.

36 FLA. STAT. § 373.042(4)(a) (2007). Peer review may be demanded by any "substantially affected person." *Id.* Requesting peer review may subject a party to sharing the costs "to the extent economically feasible." FLA. STAT. § 373.042(4)(b) (2004).

37 FLA. ADMIN. CODE r. 62-40.473.

38 FLA. ADMIN. CODE r. 40E-8.421(1), figure 1.

39 FLA. STAT. §373.219(1) (2007). Other criteria include the three part test of section 373.223.

40 These distinctions are reflected in the following regulatory definitions of the District:

Harm - means the temporary loss of water resource functions, as defined for consumptive use permitting in Chapter 40E-2, F.A.C., that results from a change in surface or ground water hydrology and takes a period of one to two years of average rainfall conditions to recover. FLA. ADMIN CODE r. 40E-8.021(8).

Restoration: Prior to 1997, there were questions regarding whether an MFL could be established to protect more water than is currently available in the system, i.e. whether an MFL could be adopted based on restoration goals. The statute allows MFLs to be established based on limits or levels "at which further withdrawals would be significantly harmful." Some argued that this language indicated clear statutory intent for MFLs to be established based upon current conditions in order to limit increased withdrawals. Thus, if water levels or flows were lower than historic conditions because of drainage, withdrawals, and diversions, an MFL could only protect against the significant harm caused by further withdrawals. A contrary interpretation was that an MFL could apply at any point in time that continued withdrawals could cause significant harm, even if that harm had also occurred in the past. Under this interpretation, MFLs could be used to help achieve restoration.

The 1997 legislation addressed this issue in several ways that imply the Legislature intends for MFLs to be established for restoration. First, it required the development of recovery plans for waters whose MFL is currently being violated.[41] Second, it authorized the Districts to set MFLs below historic levels in areas where "recovery to historical hydrologic conditions" is not "economically or technically feasible" or "could cause adverse environmental or hydrologic impacts."[42]

The legislation also, more generally, required the districts to consider "changes and structural alterations to watersheds, surface waters and aquifers," the effects they have had and the "constraints" they have placed on the hydrology when establishing MFLs.[43] The implication of this section is that the districts can establish MFLs below historic conditions where constrained by development. A final sentence, however, states that the paragraph shall not "allow significant harm" caused by withdrawals. This suggests that MFLs can be set below restoration levels

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Significant Harm – means the temporary loss of water resource functions, which result from a change in surface or ground water hydrology, that takes more than two years to recover, but which is considered less severe than serious harm. The specific water resource functions addressed by a MFL and the duration of the recovery period associated with significant harm are defined for each priority water body based on the MFL technical support document. FLA. ADMIN CODE r. 40E-8.021(28).

Serious Harm – means the long-term loss of water resource functions, as addressed in Chapters 40E-21 and 40E-22, F.A.C., resulting from a change in surface or ground water hydrology. FLA. ADMIN CODE r. 40E-8.021(27).

Under the terms of these rules, an MFL should thus be based on physical or biological conditions that can be adversely affected by altered hydrology and take more than two years to recover

41 FLA. STAT. § 373.0421(2) (2007).

42 FLA. STAT. § 373.0421(1)(b)(1) (2007). The South Florida Water Management District is not allowed to use this exclusion in the Everglades Protection Area. FLA. STAT. § 373.0421(1)(b) (2007).

43 FLA. STAT. § 373.0421(1)(a) (2007).

if those levels are constrained by structural alterations, but not if they are the result of withdrawals.

Planning: prevention or recovery strategies: MFL implementation must now be addressed in regional water supply plans. A major emphasis of the 1997 legislation was to require the districts to develop regional water supply plans for any area where water sources are not sufficient over a twenty year period "to supply water for all existing and projected reasonable-beneficial uses and to sustain the water resources and related natural systems."[44] Minimum flows and levels must be included in the plan.[45]

If an MFL has been adopted and is either not currently being achieved or the plan projects that it will be violated within twenty years, the statute requires DEP or the water management district, as part of the regional water supply plan to:

> expeditiously implement a recovery or prevention strategy, which includes the development of additional water supplies and other actions, consistent with the authority granted by this chapter, to: (a) Achieve recovery to the established minimum flow or level as soon as practicable; or (b) Prevent the existing flow or level from falling below the established minimum flow or level.[46]

It is noteworthy that the recovery or prevention strategy must not only be included in the plan, but must be expeditiously implemented. If existing flows or levels fall below the established MFL, then recovery must be achieved as soon as practicable. If the MFL is not currently being violated, then flows or levels must, without qualification, be prevented from falling below the MFL. The next paragraph appears to soften the mandate. It states:

> The recovery or prevention strategy shall include phasing or a timetable which will allow for the provision of sufficient water supplies for all existing and projected reasonable-beneficial uses, including development of additional water supplies and implementation of conservation and other efficiency measures, concurrent with, to the extent practical, and to offset, reductions in permitted withdrawals, consistent with the provisions of this chapter.[47]

The precise meaning of this paragraph may be debated. Some may argue that a recovery or prevention strategy must allow violations of an MFL while additional

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44 FLA. STAT. § 373.0361(1) (2007).

45 FLA. STAT. § 373.0361(2)(g) (2007).

46 FLA. STAT. § 373.0421(2) (2007).

47 *Id.*

water supplies sufficient to meet all demands are under development. Clearly the plan must identify sources of water sufficient to meet all reasonable-beneficial demands within the planning horizon,[48] but there is no requirement for the water management district to supply them. Where reductions in permitted withdrawals are required to meet an MFL, however, the recovery or prevention strategy must include phasing or a timetable that provides for the development of supplies to offset the required reductions. That requirement, however, is only imposed "to the extent practical" and to the extent it is consistent with the other provisions of chapter 373.

EXISTING LAW: RESERVATIONS

Reservations are another method under Florida law for protecting water for the environment. The Districts and DEP are authorized to reserve water from use by permit applicants "in such locations and quantities, and for such seasons of the year, as . . . may be required for the protection of fish and wildlife or the public health or safety."[49] Reservations may be periodically reviewed and revised in light of changed conditions but "all presently existing legal uses of water shall be protected so long as such use is not contrary to the public interest." Reservations have an advantage vis-à-vis minimum flows and levels in that they do not require a determination of significant harm. The purposes for which reservations may be adopted, however, are more limited.

Reservations have seen only limited use in Florida. The St. Johns River Water Management District adopted the first reservation, to reserve the quantity of water flowing onto Paynes Prairie State Preserve from Camps Canal through a structure that DEP had installed in a dike.[50] A prominent state senator had argued to the District that DEP required a consumptive use permit and the reservation, by rendering that quantity unavailable for consumptive use, undercut that argument.[51] The second reservation was adopted by the Northwest Florida Water Management District, evidently as part of Florida's interstate conflict with Georgia. The District reserved all of the flow of the Apalachicola River and the Chipola River, a tributary, at certain gauges.[52] There has been little interest by the water management districts

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48 FLA. STAT. § 373.0361(2) (2007).

49 FLA. STAT. §373.223(4)(2007).

50 FLA. ADMIN. CODE r. 40C-2.302.

51 Joseph Smith v. St. Johns River Water Management District, DOAH Case No. 94-0544 (Final Order, July 13, 1994); Joseph Smith v. St. Johns River Water Management District, DOAH Case No. 93-7109RP (Final Order, June 16, 1994).

52 FLA. ADMIN. CODE r.40A-2.223. Interestingly, the District based the reservation in part on a declaration that withdrawals from these streams were not in the public interest. Withdrawals from the Chipola for Port St. Joe, however, were deemed an alternative water supply and therefore not subject to the reservation.

in adopting other reservations, except in the South Florida Water Management District, where reservations are an integral part of the strategy for implementing Everglades restoration policies.

Everglades restoration: Restoration of the Everglades depends on significant investment by both the state and federal governments in facilities to capture, treat, and redistribute water that would otherwise be drained to tide. The federal partner and environmental advocates have long been concerned that the stored water could be used to augment the supply for consumptive use, at the expense of environmental restoration. As Congress considered federal legislation to authorize the Comprehensive Everglades Restoration Plan (CERP), state officials assured the members that state law would be used to protect water intended for restoration from allocation to consumptive use.

The resulting legislation codified those assurances in several sections of the Water Resources Development Act of 2000 (WRDA 2000).[53] First, it required a binding agreement between the Governor and the President that the state would ensure "that water made available by each project in the Plan shall not be permitted for a consumptive use or otherwise made unavailable by the State until such time as sufficient reservations of water for the restoration of the natural system are made under State law. . ."[54] Second, it created a new process for formally identifying the water needed for environmental restoration. A Project Implementation Report (PIR) is required for each project that is part of the overall plan, identifying "the appropriate quantity, timing, and distribution of water dedicated and managed for the natural system" and "the amount of water to be reserved or allocated for the natural system."[55] The actual approval of construction requires the execution under state law of "any reservation or allocation of water for the natural system identified in the [PIR]."[56] Finally, an operating manual must be issued for each project that is consistent with the water reservation or allocation.[57] Parallel state legislation to authorize Everglades restoration requires the district to allocate or reserve the additional water supply identified in a PIR.[58] The South Florida Water Management District is developing rules to implement the first CERP-related reservation for the Picayune Strand Restoration project.[59]

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53 Pub. L. No. 106-541, Section 601, 114 Stat. 2572, 2680 (2000).

54 WRDA 2000, §601(h)(2)(A).

55 Id., §601(h)(4)(A)(iv-v).

56 Id., §601(h)(4)(B)(ii).

57 Id., §601(h)(4)(C).

58 FLA. STAT. §373.470(3)(c)(2007).

59 Proposed Rules 40E-10, 40E-2 excerpt and 40E-20 excerpt (8-21-08), available at http:sfwmd.gov. [Note

Amendments to the water resource implementation rule: The scope of state authority to reserve water has been challenged by development interests. When the Florida Department of Environmental Protection (DEP) proposed an amendment to the Water Resource Implementation Rule (WRIR) to provide guidance on the adoption of reservations, the rule was challenged in state administrative proceedings.[60] Rule 62-40.474 was upheld, but the ruling of the Administrative Law Judge found significant limitations in the legislative authority for reservations that are likely to be raised in future rule challenges as reservations are adopted or implemented.

Beyond restating the statutory authority, the rule does four things. First, it describes several specific ways that reservations might be used. For example, to "aid in a recovery or prevention strategy" for a waterbody with an MFL; to "aid in the restoration of natural systems . . . "; or to "protect flows or levels that support fish and wildlife before harm occurs." Second, it requires that reservations "to the extent practical, clearly describe the location, quantity, timing, and distribution of the water reserved." Third, it provides that reservations can be adopted prospectively for water that is not yet available. Fourth, it requires the districts to conduct an independent scientific peer review of the underlying "data, methodologies, and models" where the district deems it necessary.

One set of arguments related to the alleged expansion of the resources protected to include more than "fish and wildlife."[61] For example, the rule authorizes the districts to reserve water to aid in the restoration of "natural systems," a term defined to mean "an ecological system supporting aquatic and wetland-dependent natural resources, including fish and aquatic and wetland-dependent wildlife habitat."[62] The ruling makes very clear that elements of natural systems that are not "fish" or "wildlife," or that are not proven necessary to protect fish or wildlife, could not provide the legal basis for adoption of a reservation. For example, it would not be sufficient to establish a reservation to protect the hydrologic regime needed for the maintenance of certain soils or plant communities (assuming living plants in the wild are not "wildlife"). It would be necessary to take the additional step of showing how fish or wildlife depend on those soils or plant communities. For an illustration of what might be required to make that next step, see the scientific peer review report for the proposed reservation for the Picayune Strand Restoration.

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that technical changes to the district website have made it impractical to cite specific pages. Go to "what we do," water supply, rule development, reservations.]

60 Assoc. of Fl. Community Developers v. Dept. of Envt'l Protection, DOAH Case No. 04-0880RP, Final Order, Feb 24, 1996.

61 Sections of the rule that provided guidance on the use of reservations to protect public health and safety were not contested. Rule 62-40.474(1)(b), F.A.C.

62 FLA. ADMIN. CODE r. 62-40.210(19).

Another set of arguments related to question of whether reservations can be used to aid restoration because the legislative authority extends only to "protection." The petitioners argued that reservations could only be used to reserve whatever quantity of water is necessary to maintain the existing state of fish or wildlife. If the result of a reservation would be an increase in the abundance or diversity of organisms or their habitat, they argued, then the purpose of the reservation would be impermissibly expanded to "restoration," which is not authorized.[63] DEP argued that "protection" should be interpreted to mean "ensuring a healthy and sustainable, native fish and wildlife community; one that can remain healthy and viable through natural cycles of drought, flood, and population variation."[64] The Administrative Law Judge accepted the idea that "protection" might include "restoration" in some cases, where the restored environmental condition is "required for the sustainability of existing fish and wildlife communities."[65] He warned, however, that in other cases a reservation might exceed the statutory authority if it "resulted in significantly larger fish and wildlife communities." It is difficult to tell from this statement how he would rule if significantly larger populations are needed for sustainability, but it is clear that there are boundless opportunities for litigation challenging specific reservations.

STRENGTHS OF THE CURRENT APPROACH

Most states that protect water flows and levels do so through counterparts to Florida's water reservations.[66] Florida goes beyond that, however, through the additional statutory mechanism of MFLs. Although these two mechanisms provide the opportunity for enhanced protection of Florida's water resources and ecology, they also create the potential for overlap and confusion.

LIMITATIONS OF THE CURRENT APPROACH

Several unresolved ambiguities inherent in Florida's statutory scheme of MFLs and reservations threaten to undermine their potential. With respect to MFLs, these ambiguities include, 1) determining the point at which harm becomes "significant," 2) determining the types of harm that can be considered in setting MFLs, 3) whether ecological harm is relevant to the setting of minimum levels, as well as

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63 Assoc. of Fl. Community Developers v. Dept. of Envt'l Protection, DOAH Case No. 04-0880RP, Final Order, Feb 24, 1996 , ¶¶25, 28-30.

64 *Id.*, ¶25.

65 *Id.*, ¶34.

66 *See, e.g.*, COLO. REV. STAT. § 37-92-102(3) (authorizing "instream flow" water rights to "protect the natural environment to a reasonable degree").

minimum flows, 4) whether the "uses" considered by water supply plans include non-consumptive uses, and 5) the circumstances under which MFLs can be adopted based upon restoration goals.

With respect to reservations, two primary limitations exist. First, an administrative decision has interpreted the statute narrowly to authorize the protection of "fish and wildlife," but not "natural systems," and to support the "protection" of resources, but not their "restoration." Second, reservations only protect water from applicants for consumptive use permits. The environment may be deprived of water, however, through a variety of actions that are not currently subject to consumptive use permitting. The operation of public or private pumps, discharge structures, and other elements of surface water management systems can have very significant effects on the availability of water for natural systems. Consumptive use permits are not typically required for such activities.

A more fundamental problem is that both MFLs and reservations are only intended to protect water from being withdrawn or diverted. In the maintenance or restoration of aquatic systems, however, dry periods and low flows are often essential to the maintenance of ecological structure and function. Water managers should be identifying optimum flows and levels for a range of hydrologic conditions, and should have the authority and duty to protect them from being either diminished or increased.

PROPOSALS FOR REFORM

Define "significant harm"

The meaning of "significant" in the statutory criteria may be debated. It was not included in the *Model Water Code*.[67] SFWMD interprets it in the rules quoted above to mean harm that would require more than two years but less than "long term" for recovery to occur.[68] One ALJ who has addressed the issue stated:

> The establishment of minimum flows and levels does not have to be based on precise historical averages. The statute seeks to prevent "significant" harm to the water resources. Preventing any and all measurable impact to the water resources is not the stated legislative goal and some impact is an unavoidable element of achieving beneficial use of the water resources for human activity. Thus, the establishment of MFLs is highly infused with policy considerations and requires a balancing of societal interest in order to decide what impacts are significant.[69]

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67 F. Maloney, R. Ausness, J. Morris, A Model Water Code §1.07(4) (1972).

68 *See supra* note 40.

69 Charlotte Cty. v. Southwest Florida Water Mgt. Dist., DOAH Case No. 94-5742RP, 1997 WL 1052343,

These interpretations are not compelling. The term "significant" does not necessarily connote a balancing of costs and benefits to determine whether the harm is unacceptable to policy makers. If it did, the 1997 amendments, which established criteria and conditions for such considerations, would seem unnecessary. "Significant" can also mean "probably caused by something other than mere chance."[70] In the context of scientific analysis of data regarding harm to water resources the use of the term "significant" would refer to evidence of harm in which there is statistically significant confidence. The term "significant" was most likely included in the *Water Resources Act* to eliminate the potential argument that any withdrawal of water would cause some degree of harm and must be prohibited. That may be true in a theoretical sense, and the legislature probably intended to limit the MFL to protecting against harm that is of more than *de minimis* or theoretical impact.[71] Under this interpretation harm would be significant if it is at least measurable, observable or predictable to a statistically significant degree.

Measure "significant harm" in terms of context as well as intensity

There is another aspect to the determination of significance that bears examination. None of the agency rules seems to give any express consideration to other statutory authorities for management of the affected resources, such as classification as a state or national park, an aquatic preserve, critical habitat for endangered species, a wild or scenic river, or similar protected status. Harm may be significant because of its context as well as its intensity.[72] If harm to estuarine resources occurs in a national park that was created for the purpose of restoring and maintaining those resources unimpaired for future generations,[73] then a lesser degree of harm should be considered "significant" than if the same degree of harm was caused to an area with a lesser protected area classification.

¶1268 (March 1997) [hereinafter SWUCA Final Order].

70 Webster's Seventh New Collegiate Dictionary.

71 The Florida Legislature would have thus been seeking to preclude the kind of analysis that the U.S. Supreme Court rejected in Arkansas v. Oklahoma, 503 U.S. 91, 111 (1992), where it interpreted a water quality standard that allowed "no degradation" to prohibit only changes in water quality that are "actually detectable or measurable."

72 *See e.g.* 40 CFR §1508.27 in which the Council on Environmental Quality interprets the term "significantly" as used in the National Environmental Policy Act to require "considerations of both context and intensity."

73 16 U.S.C. §§1, 410gg (2004).

Apply consistent standards to surface watercourses and groundwater, considering "the ecology of the area" when establishing both minimum flows and minimum levels

The basic criteria for establishing MFLs are set forth in the statute. For minimum flows, they are "the limit at which further withdrawals would be significantly harmful to the water resources or ecology of the area." For minimum levels, the reference is only to the "water resources of the area." Some have used that difference to argue that minimum levels cannot be established to protect ecological functions. There are several problems with that interpretation. Water is not a resource except to the extent that someone or something uses or depends upon it. The term "water resources" thus logically includes the ecological functions that are supported by water. The exact same term used in an analogous manner in Part IV of the *Water Resources Act*[74] has been interpreted to authorize the protection of aquatic and wetland-dependent wildlife, wetland functions and other ecological functions of water.[75] Additionally, the water management districts are also required to consider and authorized to protect "nonconsumptive uses" when establishing MFLs. The uses of water *in situ* for fish, wildlife, recreation, navigation and aesthetics are classic nonconsumptive uses. The Water Resource Implementation Rule[76] adopted by DEP provides for he consideration of a broad range of ecological functions in establishing MFLs.[77]

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74 FLA. STAT. § 373.413 (2007) authorizes DEP and the districts to regulate surface water management facilities to ensure they "will not be harmful to the water resources of the district."

75 St. Johns River Water Mgmt. Dist. v. Consolidated-Tomoka Land Co., 717 S.2d 72 (Fla 1st DCA 1998); Florida Electric Power Coordinating Group v. Suwannee River Water Mgmt. Dist., Case No. 94-2722RU, 94-2930RP, 94-2935RP, 94-2936RP, 1995 WL 1052582 (Final Order, DOAH, 1995).

76 FLA. ADMIN CODE r. 62-4 (authorized by FLA. STAT. §373.036(1)(d) (2007)). The Water Resources Implementation Rule was originally named the State Water Policy Rule. Changes to the rule cannot become effective until the Legislature has had a chance to address them in a regular session. The quoted language reflects changes adopted by DEP through rulemaking that began in 2002 and culminated in the settlement of all rule challenges in February 2004, except one relating to the reservations language. Until the conclusion of the 2005 regular legislative session the changes marked with underline and strikethrough will not become effective.

77 FLA. ADMIN. CODE rule 62-4.473 states:
(1) In establishing minimum flows and levels pursuant to Sections 373.042 and 373.0421, F.S., consideration shall be given to natural seasonal fluctuations in water flows or levels, nonconsumptive uses, and environmental values associated with coastal, estuarine, riverine, spring, aquatic, and wetlands ecology, including:
(a) Recreation in and on the water;
(b) Fish and wildlife habitats and the passage of fish;
(c) Estuarine resources;
(d) Transfer of detrital material;
(e) Maintenance of freshwater storage and supply;
(f) Aesthetic and scenic attributes;
(g) Filtration and absorption of nutrients and other pollutants;
(h) Sediment loads;
(i) Water quality; and
(j) Navigation.

Require water supply plans to identify options for maintaining or restoring the sustainability of natural systems and other nonconsumptive uses

The regional water supply plan must identify water supply options that are sufficient, in conjunction with demand management, to exceed "all existing and future reasonable-beneficial uses within the planning horizon."[78] Each option must be analyzed regarding cost and implementation. The statute does not require the Districts to identify options for meeting the water quantity needs of natural systems and other nonconsumptive uses. Given the fact that the duty to develop a regional water supply plan is triggered by a determination that water supplies are inadequate for both human uses and "to sustain the water resources and related natural systems,[79]" it would seem logical for the plan to include provisions for meeting those needs. Minimum flows and levels, which allow "significant harm" to occur, are not adequate as a benchmark for sustainability. The Legislature was careful to specify that for "reasonable-beneficial uses" projected demand must be based on use during a 1:10 year drought.[80] The needs of natural systems should also be assessed and protected under drought conditions, but not limited to the 1:10 year condition. Options for maintaining or restoring sustainability should be developed for a full range of hydrologic conditions.

Legislatively authorize agencies to reserve water for the protection or "restoration" of natural systems

The Florida Legislature could address the existing limitations of reservations by authorizing the agencies to reserve water for the protection or restoration of natural systems, as defined in the WRIR. A more fundamental reform would be to implement reservations as originally recommended in the *Model Water Code*, which authorized the districts to reserve water "to implement a provision of the State Water Plan."[81] Under this authority, water could be reserved from consumptive use applicants for a much broader set of purposes than are authorized under the statute as adopted. Water might be reserved for fish and wildlife, recreation, maintenance or restoration of water quality standards, or to implement future water supply projects, at least to the extent that a basis had been established in the state water plan. Such an approach is particularly important in the context of Everglades restoration, which depends on the ability of future projects to capture large quantities of surface water that are otherwise

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78 FLA. STAT. § 373.0361(2)(1) (2007).

79 FLA. STAT. §373.0361(1)(2007)

80 FLA. STAT. §373.0361(2)(a)(1) (2007)

81 *A Model Water Code*, §2.02(3). See commentary at pp.107, 181-182.

wasted, or even harmful, when discharged to tide. Some of that water may also be useful for public water supply projects that have not been fully planned. A reservation could serve to protect that water from applications that are inconsistent with future needs and thus maintain the integrity of water supply planning.

3

Water Supply

Establishing Links with Growth Management

ACTION LIST 3

- Prohibit the issuance of CUP and ERP permits unless the applicant first obtains local government land use approval and demonstrates consistency with the applicable comprehensive plan
- Require local governments to fully "integrate" District regional water supply plans into their land use plans and decisions

OVERVIEW

For decades, Florida has experienced, and continues to experience, dramatic population growth and urban and suburban development pressure. Attempts to manage growth have had very limited success. At the same time, regions of Florida are facing water shortage crises. Projections suggest that sufficient water will not be available to accommodate anticipated growth in large areas of Florida.

Historically, Florida's growth management and water management have been governed by different laws, by different regulatory agencies, and with different policy objectives. Each has been considered to involve a unique set of considerations. Growth management is an exercise in *planning*, attempting to address the "what, where, and when" of new growth. In contrast, water management has been concerned primarily with *permitting*, with water management addressing "how" water will be supplied to the new development. Water availability traditionally has not been a factor in determining whether a particular development should be constructed in a particular area at a particular time. Although steps have been taken

to integrate the two, in their current form land use planning and water management regulation remain two completely different natural resource protection tools with very different objectives

EXISTING LAW

Growth management planning: Growth management is a planning function carried out by local governments. It is the prerogative of the citizens of the local government to decide what their community will look like—that is, to formulate a vision for their future. Although land use planning is distinct from water resource management, there is some overlap. For example, in addressing the "what" and the "where" of future growth, planners look a particular location and evaluate the water resources of that location, taking into consideration such characteristics as water quality, presence and quality of wetlands, flood potential, and importance of that location for water supply or aquifer recharge. Then local planners evaluate what land uses and what densities are appropriate at that particular location given the water resources characteristics at that location. The "when" of planning is typically addressed through concurrency requirements.

Water supply: The Districts engage in two primary functions—permitting and planning. With respect to the former, the Districts issue two types of permits: permits for water use ("CUPs") and permits for land development ("ERPs"), looking at the potential adverse effects of particular development proposals on water resources. In their permitting role, the Districts must assume that a particular land use on a particular site is appropriate. That is, the questions of "what," "where" and "when" have already been answered by the local government. In contrast, the Districts ask "how" a project proposed for a particular site can meet applicable permitting criteria to protect water resources, seeking to minimize and mitigate environmental impacts through technology and other measures. For example, ERP or CUP permitting asks: "how" the proposed project can be designed to ensure 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 wetlands impacts can be mitigated; and "how" alternative lower-quality water supply sources can be developed and utilized.

The Districts also engage in the function of water supply planning, envisioned by the *Model Water Code* as an important component of water resources management. Although the Districts have participated in limited water resources

planning efforts for many years, it has not been until the past ten years that the Districts have undertaken serious efforts to engage in comprehensive planning. In 1997 the Florida legislature required Districts to develop regional water supply plans for each region where sources of water are determined "not adequate to supply water for all existing and future reasonable-beneficial uses and to sustain the water resources and related natural systems."[82] The current statute requires the regional water supply plan to be based on a 20-year planning horizon, to quantify water supply needs, and to develop a list of water supply development options, including traditional and alternative water supply project options.[83]

Notably, the 1997 Act is an expression of the legislature's intent that water supply should not limit future growth. Although the regional water supply plans identify water supply options and provide information to assist local governments in their planning, they are not in themselves "growth management" plans. Of course, to the extent local governments and/or utilities fail to pursue these water supply options, sufficient water supply may not be available in high growth areas and such lack of water may in fact act as a limit to growth.

Linking water supply and growth management: Prior to 1997, few linkages existed between water management planning and local government comprehensive planning. In 1997, the Florida legislature began to take steps to promote improved long-term water resources planning and to link such planning with local government comprehensive planning. Today, water resource issues play a significant role in local government comprehensive planning—at least in theory.

First, local governments must address a number of water resource issues in their comprehensive plans. These mandatory considerations include the water supply sources necessary to meet and achieve the existing and projected water use demand for the established planning period.[84] Comprehensive plans must also contain a future land use plan element that is based in part upon the availability of water supplies; a general sanitary sewer, solid waste, drainage, potable water, and natural groundwater aquifer recharge element which is correlated to the future land use element and indicates ways to provide for future potable water; a conservation element which assess current and projected water needs and sources for at least a ten year period, considering the appropriate district regional water supply plan; and an intergovernmental coordination element which addresses coordination with regional water supply authorities.[85] Further, local governments must assess their current and

82 FLA. STAT. § 373.0361.

83 FLA. STAT. § 373.0361.

84 FLA. STAT. § 163.3167(13).

85 FLA. STAT. § 163.3177(6)(c), (d) & (h).

projected water needs and sources, "considering the appropriate regional water supply plan."[86] By rule, local governments must satisfy specific minimum criteria for each of the elements required to be in the comprehensive plans, including a number of provisions that relate to the protection of water resources.[87]

Second, "concurrency" legislation links land use planning and water management. Historically, concurrency of development was governed by available water *facilities*, rather than available water *supplies*. The current statute requires that adequate water supplies and potable water facilities shall be in place and available to serve new development no later than the issuance by the local government of a certificate of occupancy.[88]

Third, legislation provides an opportunity for the Districts to participate in local government comprehensive planning and plan amendment through a "review and comment" role. In particular, local governments must transmit proposed comprehensive plans and plan amendments to a number of reviewing agencies, including the appropriate water management district. The Districts, in turn, must provide comments to the Department of Community Affairs ("DCA") for review. The DCA uses the water management district comments to determine whether to comment on or to object to the proposed plan or plan amendment.[89]

Fourth, the Districts must assist local governments in the development and future revisions of local comprehensive plan elements related to water resources, providing a wide array of specified technical information related to water resources to assist in comprehensive plan development.[90]

Finally, there are at least five specific instances where District regulations require that local government land use regulations be integrated into ERP permitting decisions. For example, under the St. Johns River Water Management District ERP rules, local government land use regulations will be used, or taken into account, when making the following determinations with respect to an ERP application review: a) the potential flood damages to a structure;[91] b) secondary impacts;[92] c) cumulative impacts;[93] and d) preservation mitigation.[94] Finally, within the Wekiva River Protection Area, the District shall not issue an ERP until the

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86 FLA. STAT. § 163.3177(d).

87 FLA. ADMIN. CODE § 9J-5.006.

88 FLA. STAT. § 163.3180(2)(a).

89 FLA. STAT. § 163.3184(3).

90 FLA. STAT. § 373.0391.

91 St. Johns River Water Management District, *Management and Storage of Surface Waters Applicant's Handbook*, Rule 9.1.3.

92 *Id.* at Rule 12.2.7.

93 *Id.* at Rule 12.2.

94 *Id.* at Rule. 12.3.2.2.

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.[95]

STRENGTHS OF THE CURRENT APPROACH

The requirement that the Districts develop 20-year regional water supply plans is a strength of the current system. Similarly, the legislature has taken important preliminary steps—well in advance of many other states—to integrate water supply and land use planning.

LIMITATIONS OF THE CURRENT APPROACH

Although many improvements have been made in recent years in linking water management planning and decision-making with local government land use planning, the linkages still are limited and do not go far enough to ensure long term protection of water resources and the public interest. The existing linkages continue to focus on making information about water resources available to local governments to incorporate into their planning processes or ensuring that "water supply" will be available to accommodate anticipated growth.

There continues to be a disconnect between the broader goals and community vision of local government planning and the limited focus of water management planning and decision-making. Under the existing system, by the time a developer requests a permit application, it is typically too late for planning decisions to be made. All that can be done at this point is to minimize environmental impacts through engineering technologies and mitigation. The burden has been passed on to the permitting agency, rather than dealt with as a land use and natural resource protection policy. To fully protect water resources, other environmental resources and community goals, it is necessary to move beyond this compartmentalized approach, where each regulatory agency makes decisions in a virtual vacuum without concern for other governmental or community objectives, decisions, or planning visions.

Continuing in the current vein will lead to increased urban sprawl and inappropriate land and water uses which will bring with them the concomitant long-term erosion of water and other environmental resources despite the fact that each proposed development technically meets the District permitting criteria through

[95] *Id.* at Rule 11.3.6 (based upon legislative authorization contained in FLA. STAT. § 369.305 unique to the Wekiva Basin).

engineering, mitigation, and other technology. This phenomenon is evidenced by the fact that despite more than 35 years of implementation of chapter 373, the state of Florida continues to experience increased degradation of water quality, loss of wetlands, and increased strain and scarcity of water available for public water supply and other uses. No matter how good the ERP and CUP permitting criteria, they simply are not sufficient in themselves to protect Florida's water resources or to protect broader public interest concerns without better linkages to local government planning efforts.

PROPOSALS FOR REFORM

Despite the different roles that land use planning and water management regulation play, both are important complements to each other. To ensure appropriate growth management that meets the needs of local communities while protecting water resources, it is necessary to ensure that land use planning and water management decisions are adequately linked so that they do not work at cross purposes to one another.

Prohibit the issuance of CUP and ERP permits unless the applicant first obtains local government land use approval and demonstrates consistency with the applicable comprehensive plan

With the exception of the Wekiva River Protection Area described above, the water management district rules and statutes do not require consistency with comprehensive plans or local government land use regulations, much less prior local government approval. As a result, it is possible for permit applicants to manipulate the system. For example, the developer of a project that is not consistent with the local government comprehensive plan might first seek approval from the relevant water management district. After obtaining an ERP permit, the developer could then use this 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 the project is an appropriate land use type or density from a planning standpoint. As discussed in the "Public Interest" section of this paper, such a requirement could ensure that proposed water uses are consistent with the public interest in the broad sense as established through local government planning.

Require local governments to fully "integrate" District regional water supply plans into their land use plans and decisions

Current law merely requires local governments to "consider" regional water supply plans when developing their comprehensive land use plans. To implement this reform, the Districts could be required to assist local governments in developing the elements of their comprehensive plans addressing water and conservation matters. This would ensure that the overall land use vision for the community is consistent with long term water resource protection and with the maintenance of future water supply both for future human needs and for environmental protection. By actually integrating the two plans, local governments can better plan for growth, attracting business, and meeting other community goals in ways that are explicitly designed to protect water resources and other environmental resources for the future. For example, water management experts can assist local governments in determining which ecologically sensitive areas should be protected from intense development, which areas should be set aside for green space, which areas are well-suited for industrial, commercial, or residential development, and what types of development practices should be encouraged or required to protect water resources. Local governments could bring together the work done by water management experts in identifying water supply options and integrate it with their own community objectives for growth management and natural resource protection to ensure that growth is directed to appropriate locations with adequate water supply. In other words, the information developed in the water management districts' water supply plans can help local governments make smart land use decisions.

4

Water Transfers

Restricting to an Option of Last Resort

ACTION LIST 4

- Strengthen the "local sources first" provisions (e.g., extend their application to interdistrict as well as inter-county transfers)
- Before proposing water transfers, require receiving area to reduce its per capita daily use at least 15% below that of the source area
- Set MFLs before evaluating transfers
- Repeal statutory preferences for transfers
- Simplify statutory transfer criteria, providing uniform treatment for surface and groundwater transfers and for inter-county and interdistrict transfers

OVERVIEW

Most water usage involves the withdrawal of water from a natural aquifer or surface water body for use at another location. Depending upon the distance between source ("withdrawal area" or "basin of origin") and destination ("use area"), water transfers may pose economic, engineering, environmental, hydrologic, legal, and/or political difficulties. As used in this section, "water transfer" means the transport of water from one water management district to another, or from one county to another. Notably, interdistrict transfers cross hydrologic boundaries (because the water management district conform generally to surface watersheds), whereas inter-county transfers cross political lines.

EXISTING LAW

As illustrated in the following table, a mosaic of statutes, administrative rules, and judicial opinions authorize the movement of water (both surface and groundwater) across both hydrologic (interdistrict) and political (inter-county) lines. Section 373.223(2), as interpreted by *Osceola County v. St. Johns River Water Management District*, 504 So.2d 385 (Fla. 1987), authorizes such transfers under specified conditions.

	Inter-District	Inter-County
Groundwater	Approval: Source District must approve (with comments from receiving District) Public interest: District must consider projected population and future needs of both source and use areas. Permit "shall be issued" if, 1) proposed transfer satisfies requirements of Chapter 373, and 2) future needs of source and use areas can be satisfied If within same county: streamlined procedures apply (for example, District of use receives notice, but does not comment) Citation: § 373.2295, § 373.223(2), Rule 62-40.422, Florida Admin. Code	Local sources first: public interest analysis requires Districts to "consider" additional factors when transfers cross county lines Citation: § 373.223(2) & (3)
Surface Water	Approval: both source and receiving Districts must approve Public interest: additional factors apply to surface water transfers, including conservation efforts in the receiving area and present/future needs of source area Alternative water supplies: presumed consistent with the public interest if described in regional water supply plan (with reasonable assurances) Citation: § 373.223(2) & (5) Rule 62-40.422, Florida Admin. Code	Local sources first: public interest analysis requires Districts to "consider" additional factors when transfers cross county lines Alternative water supplies: presumed consistent with the public interest if described in regional water supply plan (with reasonable assurances) Citation: § 373.223(2), (3) & (5)

Groundwater v. surface water: In some respects, Florida law favors surface water transfers over groundwater transfers. Surface transfers may be facilitated by the limited presumption created by section 223(5), under which "alternative water supply" projects described in regional water supply plans are presumed to satisfy the "public interest" permitting requirement. Because the definition of "alternative waters supplies" in § 373.019(1) specifically includes surface water, the presumption may encourage the transfer of surface water.

Other legal provisions promote the opposite result, subjecting surface transfers to more scrutiny than groundwater transfers. For example, in the context of interdistrict transfers, Rule 62-40.422(2), Florida Admin. Code provides:

> In deciding whether the transfer and use of surface water across District boundaries is consistent with the public interest pursuant to § 373.223, the Districts shall consider the extent to which:
>
> (a) Comprehensive water conservation and reuse programs are implemented and enforced in the area of need;
>
> (b) The major costs, benefits, and environmental impacts have been adequately determined including the impact on both the supplying and receiving areas;
>
> (c) The transfer is an environmentally and economically acceptable method to supply water for the given purpose;
>
> (d) The present and projected water needs of the supplying area are reasonably determined and can be satisfied even if the transfer takes place;
>
> (e) The transfer plan incorporates a regional approach to water supply and distribution including, where appropriate, plans for eventual interconnection of water supply sources; and
>
> (f) The transfer is otherwise consistent with the public interest based upon evidence presented.

Moreover, both the source and receiving Districts must approve surface water transfers. In contrast, the receiving District's participation is limited to commenting in the case of groundwater transfers.

Hydrologic v. political boundaries: In some respects, the transfer of water across county lines is more highly regulated than the transfer across District lines. For example, section 373.1961(1)(e) forbids the Districts from "depriv[ing], directly or indirectly, any county wherein water is withdrawn of the prior right to the reasonable and beneficial use of water which is required to supply adequately the reasonable and beneficial needs of the county or any of the inhabitants or property

owners therein." The "local sources" provisions discussed in the next subsection also tend to make inter-county transfers more difficult than interdistrict transfers.

Local sources first: The "local sources first" provisions of section 373.223(3) apply specifically to inter-county transfers (of both surface and groundwater), but do not mention interdistrict transfers. For inter-county transfers, the Districts "shall consider,"

(a) The proximity of the proposed water source to the area of use or application;
(b) All impoundments, streams, groundwater sources, or watercourses that are geographically closer to the area of use or application than the proposed source, and that are technically and economically feasible for the proposed transport and use;
(c) All economically and technically feasible alternatives to the proposed source, including, but not limited to, desalination, conservation, reuse of nonpotable reclaimed water and stormwater, and aquifer storage and recovery.
(d) The potential environmental impacts that may result from the transport and use of water from the proposed source, and the potential environmental impacts that may result from use of the other water sources identified in paragraphs (b) and (c);
(e) Whether existing and reasonably anticipated sources of water and conservation efforts are adequate to supply water for existing legal uses and reasonably anticipated future needs of the water supply planning region in which the proposed water source is located;
(f) Consultations with local governments affected by the proposed transport and use; and
(g) The value of the existing capital investment in water-related infrastructure made by the applicant.

These considerations make approval of inter-county transfers more difficult than approval of interdistrict transfers.

Bottled water exemptions: Several statutory exemptions protect water bottling operations from rules applying to the transport of water across county or District lines. In particular, sections 373.016(4)(a) and 373.223(3) exclude "the transport and use of water supplied exclusively for bottled water" from the "local sources first" preference and considerations.

THE BENEFITS OF WATER TRANSFERS

To some degree, virtually all states rely upon water transfers to increase the reliability of water supplies. In some instances, the benefits of a secure water supply might outweigh the economic, environmental, and social costs.

In the United States, there are thousands of diversions from one watershed to another. Indeed, from its inception, the western prior appropriation doctrine has endorsed transbasin diversions. Such transfers may be relatively minor, involving the movement of water among drainage sub-basins just a few acres in size. At the other end of the spectrum, transmountain diversions in the Rocky Mountain states straddling the continental divide may divert waters destined for the Pacific Ocean or the Atlantic Ocean, respectively, to ultimate destinations at the opposite side of the continent. Such diversions also occur in the east. New York City, for example, relies upon pristine, upstate sources for its water supply—collecting water from a 1,972 mile watershed spanning eight counties in New York and one in Connecticut. Although the traditional riparian "watershed rule" purports to forbid the use of water apart from the watershed of origin, the rule is riddled with exceptions, particularly in the case of securing urban water supplies.

THE LIMITATIONS OF WATER TRANSFERS

There are three primary limitations to water transfers. First, removing water from its source can have significant, negative environmental consequences. These negative impacts are more likely to occur if minimum flows and levels (or water reservations) have not been rigorously established prior to contemplation of transfers. Second, the availability of water transfers encourages water managers to adopt a supply-side mentality, ignoring the conservation measures required by demand-side management at potential lower cost and higher efficiency. The history of western cities such as Los Angeles, Las Vegas, and Denver provides a cautionary tale, illustrating that water transfers alone can never satisfy unregulated demand. Third, water transfers can have profound social impacts. With every transbasin diversion there will be winners and losers. Central and South Florida may become the "winners" in the transbasin diversion battle, but there will be losers. History has shown over and over that the losers in transbasin diversions typically are agricultural, rural communities, and the environment. Increasingly, proposed large-scale transfers trigger citizen protests. Although this might represent mere parochial protectionism, it might also suggest widespread concern and evolving social values worthy of deeper consideration, with potential relevance to the "public interest."

PROPOSALS FOR REFORM

We believe it is premature for Florida—as one of the wettest states in the nation—to development large-scale or large-volume water transfers. Before embarking down such an expensive and likely irreversible path, Florida should rigorously enforce and strengthen its existing laws, giving the innovative and far-sighted provisions of the *Water Resources Act* a chance to work.

Strengthen the local sources first provisions (e.g., extend their application to interdistrict as well as inter-county transfers):

Section 373.223(3) requires the Districts to consider the use of "local sources first" when evaluating potential inter-county water transfers. Amend this section to extend the "local sources first" considerations to potential interdistrict transfers, as well as inter-county transfers.

Before proposing water transfers, require receiving area to reduce its per capita daily use at least 15% below that of the source area:

The daily per capita use rate varies widely among counties in Florida, from a low of 54 gallons per day (Sarasota and Union counties) to a high of 172 gallons per day (Lake county) (according to USGS data for domestic (residential) use). To get serious about conservation, forbid the evaluation or implementation of water transfers unless the potential receiving area demonstrates that it has achieved a per capita water use rate that is at least 15% below that of the contemplated source district or county. This will encourage a "race to the top" and stimulate conservation efforts. Amend sections 373.2295(4), 373.223(2) (3) & (5), and Rule 62-40.422(2)(a) to incorporate this requirement.

Set MFLs before evaluating transfers:

Forbid the evaluation or implementation of water transfers and forbid the identification of alternative water supplies located across District or county boundaries unless minimum flows and levels have been established for all affected watercourses and aquifers in the source area.

Repeal statutory preferences for transfers:

Several statutory provisions encumber the "public interest" permit test of section 373.223(1)(c) and the "local sources first" requirements by tilting the analysis in favor of water transfers. Delete these analytical distortions by amending sections

373.016(4)(a) (bottled water exemption), 373.223(3) (bottled water exemption), 373.223(5) (alternative water supply preference), and 373.2295(4).

Simplify statutory transfer criteria, providing uniform treatment for surface and groundwater transfers and for inter-county and interdistrict transfers:

Florida has rejected certain artificial distinctions that can needlessly complicate state water policy. For example, the Florida Supreme Court has observed, "Political boundaries are artificial divisions that may and sometimes should be transcended when planning for the most beneficial use of our state's water resources." *Osceola County,* 504 So.2d at 388. Moreover, section 373.019(20) defines "water" to include both surface and groundwater, making Florida one of the few far-sighted states that is not scrambling to integrate the management (or "conjunctive use") of surface and groundwater resources.

Florida's water transfer statutes stray from this wisdom by evaluating potential interdistrict transfers differently than potential inter-county transfers, and by evaluating surface water transfers differently than groundwater transfers. Eliminate this unnecessary statutory complexity by amending sections 373.019 (by deleting reference to surface water as an "alternative water supply"), 373.223(2) (by explicitly authorizing interdistrict, as well as inter-county, transfers), 373.223(3) (by applying "local sources first" considerations to interdistrict transfers in addition to inter-county transfers), and Rule 62-40.422(2) (by applying interdistrict surface water transfer criteria also to transfers involving groundwater and to inter-county transfers).

the consumptive use of the transferee is greater than that of the transferor), and the pattern of return flows (as where changes occur to the timing and location of unused water discharges). The place of use may also change. If the new user plans to transport water across county or water management district lines, then the "water transfer" considerations discussed in the previous section also become relevant.

Water markets are rare in the eastern states. Markets are more common in the western states, including sales and leases, both permanent and temporary. One report documented 3,232 water sales or leases between 1987 and 2005 in twelve western states.[96] However, even the oldest water markets are relative new-comers to water law, continuing to evolve as they struggle to reallocate water in the most efficient and equitable way possible.

EXISTING LAW

The *Water Resources Act* is silent on the topic of water markets. Nevertheless, the Act contains several provisions that set the parameters within which any future market must operate.

Water as a public resource: Virtually all states recognize that water has both public and private aspects. Like most states, Florida uses a permit program to allocate among competing users the right to make "consumptive use" of public water resources. Also like most states, Florida's consumptive use permits are "usufructuary" in nature, granting the right to use water, but not ownership in the corpus of water itself.

Beyond that, Florida has charted a unique course. More than many other states, Florida places water closer to the "public" than the "private" end of the spectrum. This observation is important because the free market philosophy and Florida's approach might be incompatible. Florida's rejection of the western approach—which awards perpetual, immutable water rights— is likely to pose difficulties for the implementation of water markets.

Florida has maintained strong public control over its water resources. For example, in section 373.016(4)(a) the legislature has declared that "water constitutes a public resource benefiting the entire state. . . ." Accordingly, permit applicants must demonstrate, among other things, that their proposed water use is consistent with the public interest. In addition—unlike many western states which award perpetual water "rights"—under section 373.236 Florida's consumptive use permits

[96] Jedidiah Brewer et al., *Transferring Water in the American West: 1987-2005*, 40 MICH. J. L. REFORM 1021, 1038 (2007).

endure only for limited periods of time, typically 20 years or less.[97] Although Florida recognizes a preference for the renewal of existing permits over the issuance of new permits, existing permit holders have no absolute property right in the continuation of established water uses.[98] Moreover, the public interest limits the rights of permit holders in times of water shortage or emergency, preventing permittees from consuming their entire allotment of water. Finally, the public's paramount control over water resources can be asserted through the revocation of permits for a variety of reasons, including nonuse for a period of two years or more.

This emphasis on the public, rather than private, aspects of water was a deliberate policy choice. The inspiration for Florida's water law—A Model Water Code—explains that western rights under the prior appropriation doctrine "are granted in perpetuity and can be lost only by abandonment or statutory forfeiture. This element of inflexibility prevents more effective use by subsequent landowners. A periodic administrative review appears workable and more beneficial to the welfare of all the community."[99]

Legislative and administrative efforts: State legislators and agencies have made tentative efforts to explore the potential development of water markets in Florida. In 1994, the Southwest Florida Water Management District proposed a "voluntary reallocation" rule that would have allowed the transfer of permitted historic consumptive use from existing to new permittees within the "Southern Water Use Caution Area."[100] The proposed rule was subsequently struck as exceeding the scope of the District's authority. In 2000, failed House and Senate bills would have authorized limited transfers of consumptive use permits.[101] Two years later, the Department of Environmental Protection proposed evaluation of measures to emphasize market "principles" in the transfer of water. The Department noted, however, that controversial nature of water markets, and emphasized that "[w]ater must continue to be a public resource and water resources must be

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97 In the context of another natural resource—rangelands—the United States Supreme Court has treated ranchers' revocable permits to graze livestock on federal lands as *licenses*, not property rights entitled to compensation under the regulatory takings doctrine. *See generally,* Buford v. Houtz, 133 U.S. 320 (1890).

98 In contrast, water use permits in the west are more likely to constitute private property protected under the "just compensation" clause of the Fifth Amendment. *See, e.g.,* Hage v. United States, Fed. Cl. (2008) (awarding $4.2 million to rancher in compensation for regulatory taking of water right).

99 *Model Water Code,* at 159.

100 Florida Public Service Comm'n, Division of Policy and Intergovernmental Liaison, Water Allocation Markets 4-5 (September 2001) (discussing proposed rulemaking under Chapter 40D-2, Florida Administrative Code), *available at* http://www.psc.state.fl.us/publications/reports.aspx (follow links to "Water and Wastewater" and "Water Allocation Markets").

101 *Id.* at 5 (discussing Senate Bill 1698). *See also* Cynthia Barnett, Mirage: Florida and the Vanishing Water of the Eastern U.S. 159-60 (University of Michigan Press 2007) (discussing 2000-2001 lobbying efforts by Azurix, former subsidiary of Enron, to amend Florida law to permit water markets).

sustained for future generations."[102] Accordingly, the Department acknowledged that markets were just one of a range of possible measures to accomplish the goals of "establish[ing] an appropriate price for water," increasing the efficiency of water use, and providing "equitable access to water from restricted sources."[103]

Limited transfer of permits: In limited instances, Water Management Districts allow the "transfer" of permits from one party to another, provided the source, use, withdrawal quantities, and permit terms and conditions remain the same.[104] The rules do not address the issue of financial compensation from the transferee to the original permit holder.

Existing "gray markets": Evidence suggests that water markets—complete with sellers, buyers, and intermediary brokers—have developed within water-stressed areas of the Southwest Florida Water Management District,[105] and perhaps elsewhere within the state. In general terms, current permit holders forego the use of a portion of their allotted consumptive use. Part of the "excess" water remains in the designated source aquifer or surface water body, yielding potential environmental benefits. The original permittee then sells the remaining portion of the allotment to a new water user, for sums that may reach millions of dollars.

The legality of such arrangements is doubtful. The strongest argument against their legality is that they circumvent the statutory requirement that all potential water users (with limited exceptions) demonstrate that the proposed use of water, 1) is a reasonable-beneficial use; 2) will not interfere with any presently existing legal use of water; and 3) is consistent with the public interest. Furthermore, markets violate District rules governing the modification of permits.[106]

THE BENEFITS OF WATER MARKETS

Proponents of water markets view them as a tool to achieve three primary goals: 1) reallocating water from lower- to higher-valued uses; 2) promoting water

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[102] FLORIDA DEP'T OF ENVIRONMENTAL PROTECTION, WATER CONSERVATION INITIATIVE 1, 65-66 (2002).

[103] *Id.* at 66.

[104] *See, e.g.*, FLORIDA ADMIN. CODE § 40C-1.612 (rule promulgated by St. Johns River Water Management District allowing permit transfer where the transferee will be bound by all terms and conditions of the original permit); FLORIDA ADMIN. CODE § 40D-2.351 (rule promulgated by the Southwest Florida Water Management District); FLORIDA ADMIN. CODE § 40E-1.6107 (rule promulgated by the South Florida Water Management District allowing permit transfer, provided that transferee provides reasonable assurances that conditions of the existing permit will be met).

[105] BARNETT, *supra* note 101, at 161-63 (describing "gray market over which lawmakers have no control").

[106] *See* Rule 40D-2.331, FLA. ADMIN. CODE.

conservation and efficient use; and 3) achieving environmental protection. Advocates acknowledge that alternative tools may achieve the same goals, but believe that markets achieve these goals more efficiently and equitably than other methods.

Reallocation: In the western states, water rights are generally protected in order of priority. In times of shortage, the oldest water right receives its full allotment before the next oldest right receives a single drop. Thus, the most "senior" and valuable water rights are those that were established during the 19th century for uses such as mining and agricultural irrigation. In areas of water scarcity (including much of the west), perpetual water rights "lock in" water for traditional uses such as agriculture, which consumes some 80% of all water used in the west.[107] As a result, relatively junior users find it difficult to obtain water for purposes recognized as valuable by modern society, such as urban water supply, recreation, and environmental protection. Moreover, current allocations may be inequitable if concentrated in the hands of a few, making it difficult to distribute water across a wider spectrum of users.

In an attempt to solve this problem, some western states allow for the sale of water rights. In the vast majority of cases, the seller is a farmer and the buyer is the municipal water supplier for a growing urban area.[108] Potential urban water rights command high market prices, and intermediary water "brokers" may receive a share of the sales price. Thus, there may be three "private" parties to the transaction: buyer, seller, and broker (usually assisted by attorneys and water engineers). Such "private" transactions are generally subject to the approval of state regulators. The officials must ensure that the water right—as modified to accommodate the new user and new use—continue to conform to the requirements of state law, and that existing water users suffer no harm from the change of water right.

Conservation: Water markets may also encourage water conservation and efficient water use. If permittees who eliminate wasteful water practices are allowed to sell the "saved" water to others, then they may have a powerful financial incentive to eliminate inefficient water use. As one study asserted, "the quickest way to reform agricultural water use in the United States is to give farmers a financial incentive to use less: that is, let them sell the water to thirsty cities."[109]

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[107] *Brewer et al., supra* note 96, at 1038-39.

[108] *Id.* at 1053

[109] *Id.* at 1022-23.

Environmental protection: If markets are successful in promoting conservation, then the excess water may become available for environmental protection. That is, if users reduce their total water withdrawals, then more water remains at its natural source. An innovative Oregon statute, for example, explicitly requires that a portion of marketed water be explicitly dedicated to environmental protection. In the absence of such aggressive legislation, however, it is difficult to track the extent to which market transactions produce environmental benefits. It is possible that the same benefits might be produced by increasing water use efficiency, independent of the context of water markets.

THE LIMITATIONS OF WATER MARKETS IN FLORIDA

Incompatibility with renewable permits: Western states have exhibited mixed success using markets as a reallocation tool. One report lists numerous impediments to water markets, including the lack of secure, precisely-defined water rights; regulatory exemptions for small domestic users; and various federal laws that subsidize inefficient water use.[110] These impediments may be even more pronounced in eastern states such as Florida, where water users acquire only short-term renewable permits rather than perpetual water rights.

The Model Water Code explicitly considered how to provide enough security and certainty to water users to stimulate investment in water diversion facilities, but without sacrificing unduly the flexibility to transfer water from current uses to more beneficial new uses. The Code carefully considered and rejected the approach of western states, that of "grant[ing] a perpetual permit and allow[ing] free alienability of water rights." Instead, the Code settled on the approach ultimately adopted by Florida legislators, the allocation of relatively short-term renewable permits. The Code stated, "[t]he easiest way to maintain flexibility is to keep the term of the permit short," yet long enough for the permittees to amortize their capital investments.[111] Moreover, the Code declined to require compensation of water users whose permits were not renewed, providing further evidence that the drafters were disinclined toward a market approach.

Inefficiency: The anticipated efficiency gains of water marketing assume the presence of true *free markets* for the sale and purchase of water rights. But water markets are highly regulated—arguably more so than markets for any other natural resource. For every sale, regulators must conduct a "change of use" evaluation,

[110] *Id.* at 1025-34.

[111] *Model Code*, at 173-77.

scrutinizing the impact upon existing water users of proposed changes to the type, time, and amount of use, as well as the pattern of wastewater discharges. In the west, this evaluation is prompted by the legal requirement that changes of water rights (by either current or new users) must cause "no injury" to existing vested water rights. In Florida, such an analysis would be triggered by the requirement that water uses must be reasonable-beneficial, must not interfere with any presently existing legal use of water, and must be consistent with the public interest.

Thus, water sales are, at best, quasi-free-market transactions. As one commentator has observed, although "certain administrative regimes . . . have been misdescribed as *markets*," in fact "true markets for water [have] been rare."[112] In addition to the private parties involved in the market transaction—seller, buyer, broker, attorneys, and water rights engineers—a large number of additional parties will join the subsequent administrative proceeding. These additional participants include third-party water permittees whose water rights might be injured by the proposed sale, together with their attorneys and water consultants.

As a result, water markets involve significant transaction costs and potentially redundant proceedings—private sale negotiations and subsequent administrative analysis of the reallocation. In many cases, it might be less expensive and more efficient for the water management districts to maintain control over all water allocations, without allowance for subsequent private reallocations.[113]

Perverse incentives: It is a basic tenet of property law that one cannot sell more than one owns. Likewise, water permittees should not be allowed to enlarge their allotments by selling more water than they have consumed in the past, even if less than the amount allocated in their permits. To allow otherwise would be to permit water users to withdraw more water than necessary to accomplish their reasonable-beneficial uses, or to satisfy additional uses beyond those contemplated by their permits. Water marketing states have addressed this issue through the concept of *historic consumptive use*: water users cannot sell more water than they have consumed in the past, nor can they change their existing water rights in a way that would increase consumption. This principle can be strengthened by the use-it-or-lose-it abandonment doctrine, which reduces water rights to their historic use, rather than permitted allocation. The abandonment

[112] Joseph A. Dellapenna, *The Importance of Getting Names Right: The Myth of Markets for Water*, 25 Wm. & Mary Envtl. L. & Pol'y Rev. 317, 327 (2000).

[113] *See generally* Janet C. Neuman, *Beneficial Use, Waste, and Forfeiture: The Inefficient Search for Efficiency in Western Water Uses*, 28 Envtl. L. 919, 992 (1998) (arguing that "there simply is no smoothly functioning market in western water, and never has been").

doctrine can be applied alone, or in conjunction with a water sale or change-in-use proceeding.

These doctrines—although logically necessary adjuncts to water markets—have created perverse incentives. Users are tempted to waste water, using more than necessary in order to create a historic record of high consumption. The more one uses, the more one can sell, and the more profit one can reap. To some extent, the abandonment doctrine alone creates this temptation to waste water, if users anticipate that they will need their full allotment at some point in the future. But the temptation is far more pronounced in the context of water markets, where wasteful practices can actually lead to future profits. This temptation is not trivial—the stakes are enormous, with water rights selling for millions of dollars—giving rise to a cottage industry in the west that manipulates historic data to inflate past usage as much as possible.

Price distortions: Market proponents believe that the market is an efficient mechanism for pricing water. Although this observation has merit, it must be qualified by several additional observations. First, the prices established by markets might not be equitable. Logical sellers would convey their water rights to the highest bidder, thereby driving up the price, possibly in contravention of achieving an equitable distribution of water resources. Second, water markets fail to adequately account for "externalities"—costs and benefits borne by third-parties. For example, the sale of agricultural water rights to municipalities has a demonstrable effect upon third-parties beyond the seller and buyer, including farm-supply companies and other support industries in the surrounding area. In some cases, the sale of water rights by several farmers has threatened to literally "dry up" entire communities and their merchants.

PROPOSALS FOR REFORM

We believe that the development of water markets in Florida would be premature at this time. The conditions that have given rise to water markets in some western states currently do not exist in Florida. Many "senior" western water rights date back to the 19th century, potentially locking vast quantities of water into uses that are no longer social priorities. In contrast, Florida's permit system allows the water management districts to reevaluate water permits at intervals no greater than 20 years in most cases.

It is easy to overstate the virtues of markets, and to underestimate their difficulties. Before embarking on such a new venture, we believe that Florida should first derive maximum advantage from its existing laws and policies.

The recommendations of this section take a goal oriented approach, suggesting non-market alternatives that will promote efficient water use, environmental protection, and equity.

Amend the statute to clarify that water marketing is currently illegal:

Unless and until Florida develops water markets, it is unacceptable for some permittees to engage in water trading, while most refrain from doing so (perhaps out of fear of engaging in an unlawful activity). Clarify that water permits may not be transferred to other users, except in the narrow circumstances accompanying the sale or conveyance of "permitted water withdrawal facilities or the land on which the facilities are located," where "the source, use and withdrawal quantities remain the same."[114]

Require the Districts to reject applications for inefficient water uses:

Florida has one of the highest annual precipitation rates in the nation, yet faces imminent water shortages in some areas. Excessive consumption contributes to this problem. A 2002 report by the Department of Environmental Protection, for example, projected a "surprising increase in per capita use from 158 gallons per capita per day (gpcd) in 1995, to 162 gpcd in 2020."[115]

Such inefficient water use can be minimized through Florida's existing permit process, rather than embarking on a market experiment. Amend section 373.019 to add a definition of the "public interest" permitting criterion, making clear that proposed consumptive uses in excess of those achievable through best management practices are not consistent with the public interest. Amend section 373.223 to require the Districts to deny permits applications for uses that would "use water in such quantity as is necessary for economic and efficient utilization," thereby enforcing section 373.019's definition of "reasonable-beneficial use."

Repeal the permit renewal preference in cases of inefficient water use:

Section 373.233(2) requires the Districts to give preference to a renewal application over an initial application. Amend this section to clarify that renewal applications do not qualify for the preference unless the existing use is efficient, as judged under a methodology to be developed by the Districts.

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[114] FLA. ADMIN CODE § 40D-2.351 ("Transfer of Permits" rule of the Southwest Florida Water Management District).

[115] Florida Dep't of Envtl. Protection, *Water Conservation Initiative* 11 (2002).