

# **El Pais Verde & the Sunshine State:**

## **A Comparative Analysis, Conclusions, and Recommendations for Costa Rica Water Allocation Law Reform**

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24 July/Julio 2009

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## **PART I. INTRODUCTION**

Costa Rica has been hailed around the world as el Pais Verde (the Green Country) for its environmental awareness, drawing eco-tourists from all reaches of the globe. This beautiful country has been rated the happiest country in the world due to its small “ecological footprint,” with goals to be entirely carbon-neutral.<sup>1</sup> Yet, local Ticos have some disagreements, and this paper will focus on one particular area in which el Pais Verde has room for improvement.

Currently, Costa Rica operates under a water law from 1942, a law made before the population, economic, and development boom that the country has since experienced (Constitutional Law No.276, El Congreso Constitucional De La República De Costa Rica). There have been recent water shortages, conflicts among competing uses, and issues with water quality. A current conflict that has received significant press in Costa Rica is known as the Sardinal conflict. Water allocation conflicts have occurred between Sardinal locals and a foreign company’s project for development in tourist-town Playa de Coco. The locals’ concerns are that the project is going underway without technical evidence that enough water is available for the project and the local water supply needs. Under the current water law, a priority list is used to handle these conflicts, but as we will discuss in this paper, this priority list and most of the document is very outdated and in need of reform. The new Costa Rica draft bill of water law is a popular initiative that addresses this issue (Expediente 14585, Ley De Recurso Hídrico).

Because Florida’s 1972 Water Resources Act has been hailed as a national and international model, we are conducting a comparative analysis of Costa Rica’s Popular Initiative and Florida’s current water law to make recommendations and conclusions about what improvements can be made regarding Water Allocation in Costa Rica’s Popular Initiative based on Florida’s water law successes and shortfalls.

## **PART II. BACKGROUND: LEGAL STATUS OF WATER & THE COMMON v. CIVIL LAW IN COSTA RICA & FLORIDA**

|           | <b>Common Law<br/>(United States)</b>   |  | <b>Civil Law<br/>(Costa Rica)</b>  |
|-----------|---|--|--|
| Doctrine  | Riparian Doctrine<br>(East)   | Prior Allocation Doctrine<br>(West)                | Dominio Publico Doctrine<br>(Public Domain)  |
| Ownership | People own under<br>Public Trust (FL)   | Privatization of rights to<br>use                  | Sovereign owns for public<br>use   |
| Use       | <ul style="list-style-type: none"> <li>• Equitable Distribution</li> <li>• Reasonable-Beneficial Use</li> </ul> | 1 <sup>st</sup> in time, 1 <sup>st</sup> in right* | <ul style="list-style-type: none"> <li>• Public right to use</li> <li>• Analogous to FL Public Trust Doctrine</li> </ul> |

\*The Prior Allocation Doctrine has been modernized recently to include a reasonable-beneficial use requirement.

<sup>1</sup> Costa Rica Tops Happiness, 'Green Living' Poll. Jul 4, 2009. Agence France Presse.  
[http://green.yahoo.com/news/afp/20090704/lf\\_afp/environmentcostarica.html](http://green.yahoo.com/news/afp/20090704/lf_afp/environmentcostarica.html)

## Florida Water Law

The State of Florida adopted a reform on their common law to a modern statutory code that took place in 1972 in times where environmental conscience was just appearing. Before this change occurred, the United States water allocation system was divided into two doctrines, one in the eastern states and one in the western states. The eastern states adopted the Riparian Doctrine, such as Florida, and they perceived the use of water as an attribute of the ownership of riparian land, it prohibited landowners to cause any harm to one another. This system was mostly based on usufructuary rights. Thus, riparian landowners along the watercourse had equal rights to the use of water<sup>2</sup>, based on “reasonable use” and dependant on the quantity and type of water use.

The western states, particularly those arid parts of the United States adopted the Prior Allocation Doctrine, creating a first in time first in right. Therefore, this system protected the right to water use according to the temporal priority of use. In this system, during water shortages, users were established in order of priority. The priority was established upon a landowner’s demonstration of three requirements:

1. Show an intent to appropriate water from a natural watercourse ,
2. Actually divert water from the watercourse, and
3. Apply the diverted water to a beneficial use, avoiding waste.

As the population began to grow in the country, water shortages and water supply became a problem. The western states following the Prior Allocation Doctrine have shifted from that common law to statutory water law systems, most incorporating the Reasonable-Beneficial use.

Florida has followed the eastern Riparian Doctrine. The early system was used to subdivide rights and obligations depending on the water consumption based on four categories, though created with a lack of information:<sup>3</sup>

1. Surface streams and lakes well-defined channels,
2. Surface waters with no distinct or well-defined channels (diffuse surface),
3. Subterranean streams with well-defined channels,
4. Subterranean waters with no defined channels (percolating water).

With the use of scientific knowledge, Florida learned of the direct relationship and interdependence among all sources of water, and the water law system evolved and Florida to apply similar laws to surface and ground water<sup>4</sup>. In 1972, Florida established the Florida Water Act with the goal of a more progressive and comprehensive consumption regulation. The act was based on the Florida Model Water Code and developed the primary legislation, research, and

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<sup>2</sup> Klein Christine A. et al. Florida Law Review, Modernizing Water Law: the example of Florida, volume 61, 2009. Page. 4 available at <http://ssm.com/abstract=1324329>

<sup>3</sup> Id. Page, 12

<sup>4</sup> Id. Page, 13

management of water in the State, declaring the waters of the State as property of the State itself and held in public trust for the benefit of the citizens.<sup>5</sup>

This Act, in chapter 373 of Florida Statutes was created based on the article II section 7 of the Florida Constitution in regard to preserving natural resources, protecting fish and wildlife, minimizing degradation of water resources caused by stormwater discharges, and providing for the management of water and related resources.

The Florida Water Act looks for providing an efficient system of water allocation along the state and is noted for its confidence on water resources planning. Implementation of the act occurs through the State's Water Management Districts (WMD's). The WMDs have the responsibility to develop regional water management plans subject to the Florida Water Act and the Environmental Protection Agency (EPA) regulations. Given Florida's Water Act success, it is laudable to review this system for application to the future Water Law of Costa Rica.

### **Costa Rica Water Law**

Since Costa Rica became an independent republic, legislators have been concerned with passing a national water plan and national water law for the efficient management, regulation, and allocation of water in Costa Rica, a country with an economy heavily based in agricultural activity.

The first water law in Costa Rica was issued in May 1884, the Water Law N° 11, and was based on the Spanish Water Law of 1879. This law was kept in force for 58 years, establishing water as public domain. The 1884 water law established an order of preference in the use of water and also indicated that the executives and the municipalities had the power to give concessions for water use.<sup>6</sup> As the population grew, water flow decreased at an alarming rate. The regulations of the 1884 law were modified in the 1928 Law N° 77, which nationalized hydraulic forces and created the National Service of Electricity (SNA) to manage natural resources. On December 17<sup>th</sup> 1942, the SNA established by decree N°17 regulations for the organization of the institution and the water use permitting procedures. This decree also created the Department of Waters, which appeared before the Congress to propose a new draft Water Law, the current 1942<sup>7</sup> national water law of Costa Rica.

The 1942 Water Law is based on the articles N° 261, 262, 263 and 276 of the Costa Rican Civil Code from 1888, which reinforces the description of water as public domain. This Act has been amended twice by Law N° 2332, April 19, 1959, Law N° 5046 of August 16, 1972 and Law N° 5516 from May 20, 1974; All of which were created in 1949. The Act gives MINAET (Ministry of Environment, Energy and Telecommunications) and ICE (Costa Rican Institute of Electricity) the authority for administration and management of water resources and

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<sup>5</sup> Reference of Maloney Frank E, Florida's New Water Resources Law 1957 at Klein Christine A. et al. Florida Law Review, Modernizing Water Law: the example of Florida, volume 61, 2009. Page, 17 available at <http://ssrn.com/abstract=1324329>

<sup>6</sup> Arce Sáenz Nilo, Análisis y sugerencias sobre la Ley de Aguas , tesis de grado, Universidad de Costa Rica, 1965. Page, 2

<sup>7</sup> Id. Page, 5

water allocation. MINAET and ICE, according to the 1942 Water Law, are also to cooperate with ARESEP, the entity responsible for regulating and managing public services. However, the 1942 Water Law is not adapted to the current social reality of Costa Rica, and yet it is basis for the regulation, management, and use of the resource as well as the creation of rules such as Article 50 and 121(14) of the Costa Rica Constitution.

We apply some of the successful strategies and what we have learned from the shortfalls of the Florida Water Act to the water allocation aspect of the new Water Law Popular Initiative of Costa Rica through a comparative analysis.

### **PART III. COMPARATIVE ANALYSIS OF COSTA RICA AND FLORIDA WATER LAWS**

#### **A. The Legal Standard for the Issuance of Water Allocation Permits:**

**Costa Rica Current 1942 Law:** Const. Ley No.276, El Congreso Constitucional De La República De Costa Rica

The law currently states that the standard for any permit or concession issued is that it (1) should not affect any existing legally acquired use, and (2) it should not affect public waters for public services. However, there is no true standard on determining the above nor a description or definition of the terms used above.

**Florida Chapter 373:** Fl.St.Ch.373, Water Resources

The implementation and approval of water use permits is interpreted through the 1972 Florida Water Law and policy as determined by the Florida Department of Environmental Protection (FDEP), and implemented by the Water Management Districts (WMDs)

#### **Implementation of Water Use Permits**

Part II of the Water Resources Chapter of Florida Law is the portion on permitting of consumptive uses of water. This part includes the implementation of a program for regulating consumptive water use (s.373.216). It states (s.373.217) that the intent of the Legislature to:

- “provide a means whereby reasonable programs for the issuance of permits authorizing the consumptive use of particular quantities of water may be authorized”;
- “provide the exclusive authority for requiring permits for the consumptive use of water and for authorizing transportation thereof”;
- have Part II “govern and control,” superseding any other law, ordinance, rule, or regulation which conflicts with the purpose of regulating the consumptive use of water (with exceptions specified); and
- “Part II of the Florida Water Resources Act of 1972, as amended, preempts the regulation of the consumptive use of water as defined in this act.”

Section 373.219 requires permits for consumptive use of water and allows for reasonable conditions to be imposed as necessary by the governing body in order to assure that the use is consistent with district or department objectives and that the use is not harmful to the water resources of the area. However, no permit is required for domestic consumption of water by individual users.

#### Minimum Requirements for Obtaining a Permit

In order to obtain a permit for a proposed water use, an applicant must meet 3 minimum elements as specified in s.373.223(1) showing that the use:

- Is a reasonable-beneficial use (defined in s.373.019);
- Will not interfere with any presently existing legal use of water;
- Is consistent with the public interest.

The Reasonable-Beneficial Use Doctrine is defined in chapter 373 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.”

#### **Costa Rica Water Law Popular Initiative:** Expediente 14585, Ley De Recurso Hídrico

All water users are required to obtain a water use concession or permit, except for those uses that are private domestic uses.

#### Concessions

The Ministry of Energy and the Environment approves concessions for water consumption if the consumptive use causes no harm to human health.

#### Permits

The Ministry of Energy and the Environment approves the following permits for the use of rivers or surface water sources and to discharge “dirty” water:

- Collection of public domain channels of rainwater runoff from agricultural drainage, urban and other activities;
- Lucrative recreational boating; and
- Permits for temporary use of water in cases that are established and warranted under specific regulations.

Permits will be approved considering the explotación racional (reasonable use) of surface and underground resources joined with resource management that considers the cumulative ecosystem and water channel impacts, and implemented in accordance with the requirements and procedures established under this Act and its regulations

## **B. The Procedures for Permit and Concession Issuance**

Costa Rica's 1942 Water Law, Florida's Chapter 373 Water law, and Costa Rica's Popular Initiative all require permits or concessions for the use of water for any purpose other than domestic use. The phrase "Domestic Use" is defined slightly differently under each of the three systems. The overall procedures for the issuance of permits are relatively similar for both Florida water law and the Costa Rica popular initiative, with the 1942 Costa Rican law standing out as having fewer permitting requirements than the other two laws. *See attached chart: Comparison of Procedures for the Issuance of Permits or Concessions under the 1942 Costa Rica Ley de Aguas 276, Chapter 373, Florida Statutes and Costa Rican Bill for the Integrated Management of Water Resources popular initiative for detailed comparison (Appendix A).*

Each of the laws has a duration cap and include an article to authorize fee charges for water use permits/concessions, and for the use of the water itself. One important aspect of the procedural requirements for permit issuance under all three systems is the question of what rights existing users of water have when the new permitting system is implemented. The rights of existing users under a new permitting system should be clearly established in order to accurately assess and meet the current demand for water for all users and to avoid conflicts over water usage.

The procedures for modifying or amending permits vary under the three respective systems. The violation criteria for revocation of permits also vary across the three systems. All three systems will revoke a permittee's permit for non-use for a specified period of years. Procedural requirements for protection of the water resources are important aspects of water law, and are largely absent from the 1942 Costa Rica water law, which does not explicitly contain language addressing the procedures for establishing Minimum Flows and Levels (MFLs) or Reservations.

### **Costa Rica Current 1942 Law: Const. Ley No.276, El Congreso Constitucional De La República De Costa Rica**

#### Domestic Use

The current 1942 Water Law of Costa Rica describes "Domestic Use" as those uses needed to meet the needs of "ordinary life" and include drinking, washing clothes, bathing, and watering/bathing horses and cattle as components of that need.

#### Authority, Duration, and Fees

Permits are issued by ICE and MINAET for a 30-year maximum duration. The fees charged are primarily based on the amount of water used.

#### Existing Users

The law also specified that, upon its ratification, existing users were entitled to continue their use even if they could not prove that their water rights were legally obtained, so long as their use did not cause the flow to become insufficient to supply the needs of the land downstream.

#### Permit Modification or Amendments

The only language in the 1942 pertaining to amendments suggests that permittees are required to obtain an entirely new permit if they attempt to use water for a use other than the one for which the permit was granted.

#### Permit Revocation, Cancellation, & Expiration

The law gives ICE and MINAET the authority to revoke a permittee's permit if it has not been used for its purpose for a period of 3-5 years. Also, permits will be revoked for unauthorized transfers and breaches of permit conditions.

#### Protection of Water Resources

Absent

### **Florida Chapter 373: Fl.St.Ch.373, Water Resources**

#### Domestic Use

Florida Statutes section 373.219 requires a permit for all consumptive uses of water, but makes an exception for "Domestic Consumption of water by individual users" which has been defined elsewhere, through case law, as comprising domestic indoor use for cooking, bathing, sanitation.

#### Authority, Duration, and Fees

The Water Management Districts and the Florida Department of Environmental Protection have the authority to issue permits for a 20-year maximum duration. Florida law imposes two additional requirements for determining permit duration: (1) Sufficient data to provide a "Reasonable Assurance" that the conditions for the permit will be met for the permit duration, or for shorter durations reflecting the period for which such reasonable assurances can be provided; and (2) The completion of five-year compliance reports where necessary to maintain such reasonable assurance. Like the Costa Rica 1942 Water Law, Florida's fees are primarily based on the amount of water used.

#### Existing Users

The Florida Water Law required existing users to apply for permits when the law was enacted in 1972.

#### Permit Modification or Amendments

Florida law allows permittees to modify any terms of an unexpired permit, but distinguishes procedurally between permits for water use of 100,000 gallons or more per day, or less than 100,000 gallons per day. If the proposed modification involves water use of 100,000 gallons or more per day the application is treated in the same manner as an initial permit application and a hearing is most likely required. If the proposed modification involves water use of less than 100,000 gallons the governing board or the department may at its discretion approve the proposed modification without a hearing, provided the permittee establishes that: a change in conditions has resulted in the water allowed under the permit becoming inadequate for the permittee's need, or that the proposed modification would result in a more efficient utilization of water than is possible under the existing permit.

### Permit Revocation, Cancellation, & Expiration

The law gives the FDEP and WMDs the authority to revoke a permittee's permit if it has not been used for its purpose for a period of 2 years. Florida law emphasizes bad faith violations in its procedural requirements for revocation such as false statements on applications, willful violations of permit terms, and violations of the law.

### Protection of Water Resources

Florida water law identifies MFLs as the minimum flow or water level at which further withdrawals would be significantly harmful to the water resource, and gives authority to the regional water management districts or the Florida Department of Environmental Protection to calculate and monitor the flows and levels. As another measure to protect the water resource, Florida's law also allows the water management district governing boards or the FDEP to reserve from permitting use water required for protection of fish and wildlife or public health and safety.

### **Costa Rica Water Law Popular Initiative:** Expediente 14585, Ley De Recurso Hídrico

#### Domestic Use

The Popular Initiative describes "Domestic Use" the same as the 1942 Water Law, but includes the need to use water for "irrigation for subsistence agriculture" as an additional component of "ordinary life."

#### Authority, Duration, and Fees

Under the Popular Initiative, a National Directorate of Water Resources (NDWR) will be created and will be responsible for issuing use permits for a 20-year maximum duration. Unlike Florida or the 1942 Water Law, the Popular Initiative indicates that fees will be charged based on the type of activity for which the water is being used and the amount of pollution discharged.

#### Existing Users

Importantly, the popular initiative does not explicitly mention what rights existing users of water will have if and when the bill is enacted. This absence of language indicating what requirements existing users should follow to continue their water usage after the bill is enacted could lead to usage conflicts and water supply issues. Thus one essential recommendation to improve the popular initiative is the inclusion of language clearly defining the rights of existing users and the procedural requirements they should follow in order to exercise and establish their rights.

#### Permit Modification or Amendments

The Costa Rica Popular Initiative does not include language allowing permittees to modify the terms of their permit except to reduce the flow concession, but does allow the State to modify the terms under the following conditions: where the availability of natural water resources is decreasing, if the Executive has declared a national emergency, when stipulated by the Hydrologic Unit Water Plans, for nonpayment of fee, or for alteration or contamination of the resource, ecosystem and channels, when no remedial action is taken.

### Permit Revocation, Cancellation, & Expiration

The law gives the NDWR the authority to revoke a permittee's permit if it has not been used for its purpose for a period of 2 years. Also, permits will be revoked for unauthorized transfers and breaches of permit conditions. One interesting aspect of the popular initiative's procedural requirements for permit revocation is that the initiative allows revocation for alteration or contamination of the water resource, which is a fairly progressive and positive requirement that institutionalizes the "Polluter Pays" Principle and holds permittees accountable for contamination of the country's water resources.

### Protection of Water Resources

The popular initiative defines "Environmental Flow" as the "flow required to satisfy permanent ecosystem needs," which is a stricter and more environmentally-friendly standard than Florida's because it emphasizes satisfaction of the needs of the ecosystem and does not, as Florida's law does, allow users to withdraw water to a level just above significant harm to the resource. The popular initiative does not explicitly use the term "reservation," but it does allow MINAET to regulate, restrict, or condition partial or total use of water for water bodies that can be categorized as vulnerable, such as aquifer recharge areas or areas susceptible to salinization, or other areas declared as restricted areas for technical reasons.

## **C. Standards for Establishing Priorities Among Competing Uses of Water**

### **Costa Rica Current 1942 Law: Const. Ley No.276, El Congreso Constitucional De La República De Costa Rica**

The 1942 Water Law of Costa Rica established a number of water uses, prioritizing the human use in harmony with the ecosystem needs. The uses were based on a hierarchy, according to the article N°27 of the law which established the hierarchy as follows:

- 1) Public service
- 2) Domestic use, supply stocks, waterholes
- 3) Railways and transport
- 4) Hydraulic and hydroelectric power utilities
- 5) Agriculture
- 6) Irrigation
- 7) Hydraulic and hydroelectric for
- 8) private use
- 9) Navigation channels
- 10) Nursery ponds

It is important to note that as long as a permittee or applicant is using the water resource in a way that is considered more important to the government, the utility from that permittee or applicant will be preferred over others.

**Florida Chapter 373: Fl.St.Ch.373, Water Resources**

The Florida Water Act of 1972 breaks down the prioritization of water use by (1) Domestic Use, which does not need any permit; and (2) All Others, which require a water use permit. The law does not give any kind use hierarchy, instead denoting the procedures to get a permit by the specific Water Management Districts (WMDs), depending on which watershed in which the use will occur. Each WMD has to follow the EPA (FDEP) criteria to in order to approve permits.

**Costa Rica Water Law Popular Initiative: Expediente 14585, Ley De Recurso Hídrico**

The Costa Rican water law proposal gives preference to Domestic Use, like the Florida Water Act, but it does so by establishing a hierarchy of priorities based on standards decided by each Hydrologic Unit (similar to Florida's WMDs) according to the basin where the use is required.

We now shift our focus to the comparative analysis between the Costa Rica Water Law Popular Initiative and Florida Chapter 373.

**PART IV. THE GOVERNANCE STRUCTURE FOR WATER ALLOCATION DECISIONS AND THE RELATIONSHIP TO HYDROLOGIC BOUNDARIES**

Under both the Florida Water Act and the Costa Rica Popular Initiative, the distribution of competences for the managing of the water resource is divided into different entities, unlike the current 1942 Water Law of Costa Rica which basically lead all of the management in ICE and MINAET institutions. This statement is explained below.

**Florida Chapter 373: Fl.St.Ch.373, Water Resources**

In the Florida Water Act, the highest administrative entity for water management is the Department of Environmental Protection (FDEP) whom is in charge of research and monitoring, approving regional water supply and water control plans created by WMDs, establishing regulation schedules for water levels, regulating water use, and cooperating in project development.

In order to focus the efforts of development and water management in a efficiently way, the Florida Water Law breaks down the management of water into regional areas of the State, creating five Watershed Management Districts that take care of issues like water supply, flood protection, water quality, and natural systems protection.<sup>8</sup> The geographic boundaries of these five WMDs are based on Florida's major watershed boundaries rather than in political boundaries.

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<sup>8</sup> Klein Christine A. et al. Florida Law Review, Modernizing Water Law: the example of Florida, volume 61, Page. 20



### Water Management Districts

- 1) The Saint Johns River Water Management district
- 2) The Suwannee River Water Management District
- 3) The South Florida Water Management District
- 4) The South West Florida Water Management District
- 5) The North West Florida Water Management District

The WMD structure based on watershed boundaries permits the management districts to comprehensively address all water issues in every specific watershed. Each district has its own set of rules to manage the consumptive uses in order to prevent any damage to the water resources of the area. They do this with the help of Consumptive Use Permits (CUP) and the Environmental Resource Permit Program (ERP) that regulates all land development systems including among others construction, alteration, operation, maintenance, abandonment, dams, and filling in of surface water or wetlands. There is also a land acquisition authority in charge of controlling all land acquisition. Another entity is the Taxes Authority which is in charge of receiving and distributing the funds from taxes to enforce water management.

### Costa Rica Water Law Popular Initiative: Expediente 14585, Ley De Recurso Hídrico

According to the Water Law Popular Initiative, the administrative sector of water is going to be led by MINAET (Ministerio de Ambiente Energía y Telecomunicaciones) just like the current law states, but this law proposed a breakdown of competences by creating certain entities to be a part of MINAET:

National Directorate of Water Resources: Technical body of the MINAET, decentralized on a maximum level with operational independence in exercising its powers. Moreover, its decisions can only be reviewed by the minister of the MINAET using a mechanism of appeal. Its functions, established in Article N° 11 of the Popular Initiative are:

- Planning water manage resources
- Administrating and investing on resources
- Processing application and recommendations on water harvesting marketing channels and discharge permits
- Preparing the technical studies for development, modification and planning of the water

National Resources Council: Pro bono/ ad honorem participation and deliberation entity, consulting and coordinating between the Executive, decentralized institutions of the State (MINAET, MAG, MIEPLAN, ICT, INCOPECA, ICE, ICAYA), and different social sectors

(such as agriculture, industrial, environmental, communal etc) all related to water resources. The Council's duties include advising, monitoring and delivering opinions on the recommendations of the National Water Plan and of the national policies and strategies in each water sector.

Agency of Natural Water Resources: Actively working within each Hydrologic Unit, performing the same functions as the Directorate but at the basin unit level. This agency must keep a record of the community and social organizations that are representing legitimate interests.

Hydrologic Units: Defined by the National Directorate in coordination with the Planning Ministry (MIDEPLAN). It is equivalent to the WMDs of Florida.

Watershed Council: Located in every Hydrologic Unit to ensure that every unit basin is working properly. The Council will be comprised of representatives from the ministries, municipalities, conservation areas with the competence in every basin unit, academic institutions and administrators of ICAYA (Instituto Costarricense de Acueductos y Alcantarilados) which is in charge of the sewage management, administration, and the sanitary and environmental institutions. The functions of this Council are:

- Approving the water plan of the unit,
- Knowing and approving reports and works of the Agency of Resources,
- Approving the hierarchy of water priorities allocation,
- Conducting a general assembly at least once a year,
- Controlling the government watershed protection activities,
- Making recommendations according to the socioeconomic and environmental situation,
- Promoting active participation of the communities,
- Monitoring water resources,
- Monitoring the implementation of managing systems, and
- Keeping a record of the resources allocated to the units.

Registry of Water Channels: In charge of keeping a record of information available for the management of water resources, registering the required national and regional planning instruments, permits, institutional uses, aquifer recharge areas, headwaters, ecological boreholes, wells, legal easements, environmental organizations working on issues of water resources, drilling companies, companies that provide cleaning services for septic tanks, laboratories, offenders, discharge permits drainage etc.



## **PART V. THE RELATIONSHIP BETWEEN WATER ALLOCATION DECISION- MAKING AND LAND USE PLANNING**

Both Florida and Costa Rica have experienced rapid population growth in recent decades, which has exponentially increased the demand for water in both countries and caused the relationship between water allocation decision-making and land use planning to become ever more important. Widespread and intensive development follows increasing population, and planning for long-term water availability for both new and old development is crucial in preventing shortages and conflicts. Water allocation and land use planning in Florida have historically been poorly coordinated,<sup>9</sup> and the current water law in Costa Rica also does not adequately address the need for a harmonized relationship between the two. Analyzing the successes and failures of Florida's attempts to balance water allocation and population growth can therefore provide some valuable insights into ways Costa Rica's popular initiative can better address this complicated relationship.

### **Florida Chapter 373: Fl.St.Ch.373, Water Resources**

In Florida, land use planning has not historically been expressly tied to water allocation, and water availability has not traditionally been a factor in decisions about whether particular developments should be constructed in particular areas at particular times.<sup>10</sup> Land use planning and growth management is largely the responsibility of local governments in Florida, while the water management districts are responsible for the separate sphere of water planning, which is accomplished through the district's permitting and planning functions.<sup>11</sup> The water management

<sup>9</sup> Richard Hamann. "Law and Policy in Managing Water Resources." *Water Resources Atlas of Florida*. Edward A. Fernald, Elizabeth D. Purdum, Eds. Florida State University Institute of Science and Public Affairs, 1998: 34.

<sup>10</sup> Christine A. Klein, Angelo, M.J., and Hamann, R. *Modernizing Water Law: the Example of Florida*. 61 Florida Law Review 1, 50 (2009).

<sup>11</sup> *Id.*

districts have the authority to issue consumptive use permits (CUPs) for use of water and permits for land development (ERPs), and though they consider the potential adverse effects of proposed development on water resources when issuing permits they do not have the authority to categorize particular land uses on particular sites as inappropriate.<sup>12</sup> The districts mainly ask how development projects proposed by local governments can be designed to both meet permitting criteria and minimize impacts on water resources,<sup>13</sup> and thus they do not have authority through their permitting function to control what types of development are constructed where or when. Each district is required as part of its planning function to develop regional water supply plans 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.”<sup>14</sup> The regional supply plans quantify the district’s water needs based on a 20 year planning horizon and include traditional and alternative water supply development options.<sup>15</sup> They are not, however, intended to function as growth management plans and thus do not greatly enhance the water management districts’ role in land use planning.

Local governments in Florida, through their land use planning role, are required to consider water resource issues and there has been some recent progress toward a more coordinated relationship between land use planning on the part of the local governments and water resource planning by the water management districts.<sup>16</sup> Local governments are required to develop comprehensive plans that must address water resource issues by considering water supply sources necessary to meet present and future water demand, establishing future land use plans based on water supply availability, and assessing current and future water needs and sources while considering the relevant water management district’s regional water supply plan.<sup>17</sup> Legislation allows the water management districts to participate in the development of these local comprehensive plans through a “review and comment” function, wherein local governments submit their proposed comprehensive plans to various reviewing agencies, including the water management districts, which then offer comments to the Department of Community Affairs (DCA) that DCA then uses in deciding whether to comment on or oppose the comprehensive plan.<sup>18</sup> In order to further encourage local governments to consider water availability when planning development the Florida legislature amended Florida Statutes section 163.3180(2)(a) in 2005 to require that “adequate water supplies”, as well as potable water facilities, be in place and available to serve new development no later than the issuance by local government of the required certificate of occupancy.<sup>19</sup>

Despite these recent improvements in linking local government land use planning and water management decision-making and planning in Florida, the relationship between the two is still limited and could go further to ensure protection of the public interest and the state’s water resources. The recently amended “concurrency” legislation requiring adequate water supplies to be in place for new development, while an important step in the direction of coordinated water

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<sup>12</sup> *Id.* at 51.

<sup>13</sup> *Id.*

<sup>14</sup> *Id.* at 52.

<sup>15</sup> *Id.*

<sup>16</sup> *Id.*

<sup>17</sup> *Id.*

<sup>18</sup> *Id.* at 53.

<sup>19</sup> *Id.*

and land use planning, has fallen short of establishing a concrete relationship between the two planning areas because it relies on a weak citizen enforcement mechanism and only requires that governments plan for water availability ten years in advance.<sup>20</sup> Measures requiring local governments to consider water availability in land use planning focus too narrowly on supplying local governments with information of water supply or ensuring that water supply be available for anticipated growth, and such linkages must be stronger in order to supply meaningful growth management.<sup>21</sup>

### **Costa Rica Water Law Popular Initiative:** Expediente 14585, Ley De Recurso Hídrico

Costa Rica's popular initiative includes language laying out an impressive framework for water planning, and mandates that "planning should be done in a way that will satisfy current and future demands from the potential supply, harmonizing national development with the regional and sectoral levels, trying to optimize the availability of water resources in quantity and quality and rationalizing its use in harmony with the environment."<sup>22</sup> The popular initiative mandates that five categories of planning instruments, the National Water Balance, the National Water Plan, Hydrologic Unit plans, national sectoral policies and plans, and county regulatory and land use watershed management plans, be employed to aid in water planning.<sup>23</sup> Under the initiative, the National Water Balance would be based on a five year planning horizon, and would be the basic input for determining national water supply quantity and quality and national and regional water demand.<sup>24</sup> The National Water Plan would be based on a twenty year planning horizon to be reviewed every five years, and would integrate and coordinate the Hydrologic Unit water plans, forecast and condition transfers of water between different basins, classify surface water bodies, and contain plans for state institution water use that might have implications for domestic water use.<sup>25</sup> Each hydrologic unit would be responsible for developing its regional Hydrologic Unit Water Plan, reviewable at least every five years and containing the water balance of the hydrologic unit, prioritization of uses within the unit, and allocation of resources for current and future demands as well as the conservation and recovery of the natural environment.<sup>26</sup> Although the initiative indicates that county regulatory and land use watershed management plans will be used as tools for water planning, there is no language elaborating on what these plans should contain and how they will be used for water planning.

The attention given to water planning in the Costa Rica popular initiative indicates that the drafters are aware of the importance of linking water allocation planning to land use planning and growth management. Florida's experiences with balancing the relationship between water allocation decision-making and land use planning suggest that Costa Rica should endeavor to establish a clear relationship between government authority to approve development plans and water availability for new and existing development. One method for doing so that some have

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<sup>20</sup> Richard Hamann, personal conversation.

<sup>21</sup> Klein, Angelo, and Hamann. *Modernizing Water Law: the Example of Florida*. 61 Florida Law Review 1, 54 (2009).

<sup>22</sup> Proposal: *Bill for Integrated Management of Water Resources*, popular initiative. File 14585: Water Resources Law. Article 20.

<sup>23</sup> *Id.* at Article 22.

<sup>24</sup> *Id.* at Article 23.

<sup>25</sup> *Id.* at Article 24.

<sup>26</sup> *Id.* at Article 25.

suggested would improve the situation in Florida is for the water management districts, or the Hydrologic Units under the popular initiative, to have the authority to approve or deny all new development proposals based on water availability criteria. However Costa Rica chooses to address the issue of coordinating water allocation decisions and land use planning, it should attempt to learn from Florida's experiences in that area and establish a strong relationship between the two planning areas in order to ensure protection of the resource and the public interest.

## **PART VI. THE LEGAL MECHANISMS AND STANDARDS FOR CHALLENGING ALLOCATION DECISIONS MADE BY GOVERNANCE ENTITIES**

The permit application process affects many interests and at times decisions may be made without considering all factors and interests that may be affected. To counteract this weakness in the permitting system, states must provide a legal mechanism and standards for challenging allocation decision made by the governance entities. Below, we discuss the available challenge routes and remedies available under the Florida Water Law and under Costa Rica's Popular Initiative.

### **Florida Chapter 373: Fl.St.Ch.373, Water Resources**

Any person substantially affected by a final action of any agency with respect to a permit has standing to petition for a remedy related to the alleged damages caused by the action in which the permit allows. The Florida Water Law only explicitly allows for petitions relating to the unreasonable exercise of the state's police power constituting a taking without just compensation related to the allocation of a permit, in which the petition must be submitted within 90 days of the allegedly adverse decision. However, the law directs us to the Administrative Procedure Act, Ch. 120.68 on Judicial Review, for other related remedies sought in which the petition for review must be submitted within 30 days of the decision. The remedies available under this Judicial Review are as follows:

- Order agency action as required by law
- Order agency exercise of discretion as required by law;
- Set aside agency action;
- Remand for agency proceedings;
- Decide rights, privileges, obligations, requirements, or procedures at issue; or
- Order such ancillary relief court finds necessary to redress effects of official action wrongfully taken or withheld.

### **Costa Rica Water Law Popular Initiative: Expediente 14585, Ley De Recurso Hídrico**

Those of the public who are negatively affected by a permit or concession allocation have standing to petition to the National Water Resource Directorate, as formed in the Popular Initiative. Article 57 on Opposition described the petition process requiring that the objection be filed 10 days after the grant is approved, and that the directorate has 15 days to determine a solution to the objection. However, the remedies available and procedure for decision-making

are not mentioned in the Popular Initiative. The only guidance as to how the directorate should handle the matter is available in Article 50 of Costa Rica Constitution. This path is a weak process to use because the Popular Initiative does not call for that particular process to be used. It is recommended that the Initiative include a list of remedies available to a petitioner of judicial review and to include more time for filing the petition, as seen in the Florida Administrative Procedure Act cited to in the Florida Water Law. It also appears unlikely that the time limit placed on the directorate would work if they have numerous cases. There should also be a means of appealing to a judicial system outside the directorate to determine whether the directorate is legally exercising its discretionary powers.

## **PART VII. CONCLUSIONS AND RECOMMENDATIONS FOR UPDATING COSTA RICA WATER LAW**

### **Recommendations**

Having compared and analyzed the legal systems and the water allocation decision-making under both the Florida Water Law and the Costa Rica Water Law Popular Initiative, we have some recommendations that we believe will achieve a successful new Water Allocation Law for Costa Rica. We have based these recommendations on what we have learned from the successes and shortfalls of the internationally modeled Florida Water Law. The recommendations we propose would improve the current Popular Initiative so that it is better able to adapt to the environmental situations of the country and also to provide for more efficient management and allocation of the resource, particularly relating to the quality and quantity of Costa Rica's precious water resources.

With the goals previously noted, we recommend that the Costa Rica Water Law Popular Initiative should:

1. Explicitly establish permitting requirements for existing users.

It is very important that the law explicitly indicates whether existing users must reapply for a permit or if they are allotted a renewal without reapplying. We recommend that all existing users be required to reapply. This would ensure that existing users have some protection based on the principle of Judicial Security or "Seguridad Jurídica" as a foundation in every democratic State of Law, and also protect the water resources from ill-managed practices previously allowed.

2. Require that each hydrological unit establish its water allocation priorities/hierarchy of uses within a specified period of time.

The importance of having a specified time limit to establish the allocation of water is to maintain the planning efficiency of Hydrologic Units by avoiding any kind of backlog or bureaucracy-blocking of water allocation and permitting. We suggest the period established in the Law to be six months, which may be extended by the National Directorate to a one-time limited extension of another six months if the Hydrologic Unit is in need of such an extension.

3. Establish a clear relationship between government authority to approve development plans and water availability.

There must be an intimate and direct relationship between the availability of water and the approval of any development plan. The basis of such a relationship is the fundamental Precautionary Principle and the concept of Sustainable Development. Planning and management of water resources and development projects must be directly connected so as to establish a cap on construction projects when water is not as abundant. Such planning and management will include, but not be limited to, the calculation of water available compared to the water needs of the construction, operation, and management of any new development plan. This includes hydropower projects, city development, agricultural irrigation and runoff, road plans, etc.

4. Add a specific article providing a strategy and remedies for the public to challenge water allocation decisions.

Costa Rica has established in its Constitution the right of every citizen to challenge the practices of the public and private entities when the activities or decision of the entity is allegedly affecting their right to a healthy environment (this right is also established in the Constitution). Providing a set means of Judicial Review, separate from those who make the permit and concession decisions will ratify the right to a healthy environment and allow an efficient means for public participation and representation in management and allocation implementation.

5. Create a separate, transparent funding authority to collect taxes, fees, and payments for environmental services.

This method has proven successful in Florida and would be beneficial in Costa Rica to allow for efficient distribution of monies collected through permitting fees, water use fees, fines, and water taxes. This will ensure that the sector may address any kind of situation relating to water allocation and quality with the funds necessary for the enforcement of regulations and laws, monitoring, research, adaptive management and modifications, etc.

6. Establish environmental flows first as basis for determining amount of available water before allowing further allocation.

This allows for water allocation to adapt to the specific status of any watershed and for more efficient productivity of the watersheds without causing any damage. Knowing the amount of water available will help prevent water shortages for particular projects and/or communities. This allows for better planning and better preparation in times of shortages due to drought.

7. Allocate water to specific uses consistent with the regional water use plans or land use plans rather than a hierarchy, following a balancing test.

This is a necessary in order to have an allocation of the water that responds to the quality and quantity of the resource in order to avoid any type of harm to the watershed itself or to the ecosystem that relies on it. The ability to adapt on a case-by-case basis is an important

management tool, and setting specific guidelines that do not prioritize one stakeholder over another maintains citizen equality.

8. Include internet-based participation (email notices, searches) to publish and notify, as well as to challenge decisions, rather than relying on antiquated paper notification.

The introduction of modern ways to communicate the resolutions and important information would make the sector regulation far more efficient and effective at responding to the needs of today's world. Publication of information via official government internet sites available to the public, and listserv emails to notify the public of changes would allow for the transfer of information that is quicker and clearer. Making paperwork and petitions available via the web will allow all affected individuals the opportunity to be heard and represented, as well as allow for more efficient enforcement for effective management.

## **Conclusion**

The popular initiative Bill for the Integrated Management of Water Resources goes far toward improving the management of Costa Rica's water resources and is a vast improvement over the country's current outdated 1942 Ley de Aguas 276. With its inclusion of such important concepts as the Precautionary Principle, the Polluter Pays principle, an ecosystem approach, an emphasis on sustainable use, and the principle of gender equity, it is a progressive piece of legislation that, if and when it is passed, will represent a comprehensive framework for the management of Costa Rica's water resources.

In comparing the successes and failures of Florida's water law to the Popular Initiative, it is apparent that there are some aspects of both laws that could be improved. For instance, establishing clear timelines for enacting the various measures required by the popular initiative would strengthen the law and improve its overall effectiveness. Clearly establishing requirements for the treatment of existing users, environmental flows, and hierarchy of uses would also enhance the effectiveness of the law. In addition, including an internet-based method of public participation in and notification about water resource issues would improve government transparency and allow the public to meaningfully participate in the management of its own water resource. Protection of Costa Rica's valuable water resources is of the utmost importance in the face of increased population pressure and development, and the proposed popular initiative Bill of Law for the Integrated Management of Water Resources could, with some improvements, go far toward achieving that goal.