

Preserve Florida's Groundwater With Earth Jurisprudence

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Clayton Boyette
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“The remarkably wasteful ways we use water, the legal and natural workings of water, its vibrant social and political history and puzzling economics: all demand understanding as more and more of America faces water scarcity.”¹

Introduction

It was Wednesday evening, August 29, 2007, when what felt like an explosion consumed an Apopka Family’s residence.² A sinkhole thirty feet wide and twenty to twenty-five feet deep was responsible for guzzling down the bathroom and refrigerator of the Coronado family’s rental home, forcing the family of ten to find a new place to live.³ The damage was so extensive that the Apopka Fire Department had to help gather the family’s belongings, surround the home with crime-scene tape, and stand guard outside the perimeter.⁴

In Florida, sinkholes are formed when limestone dissolves, either naturally from groundwater or from heavy rains after times of drought, allowing overlaying layers of sand and clay to subside.⁵ Although this process occurs naturally, humans can also impact the geological integrity through highway construction, the excavation of fill dirt, well-drilling, and the excessive pumping of groundwater.⁶ Sinkholes are not the only threat to Central Florida

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¹ CYNTHIA BARNETT, *MIRAGE: FLORIDA AND THE VANISHING WATER OF THE EASTERN U.S.* 10 (2007).

² Sarah Langbein, *Sinkhole eats Apopka home from inside out*, ORLANDO SENTINEL, Aug. 31, 2007, at A1.

³ *Id.*

⁴ *Id.*; See generally BARNETT, *supra* note 1, at 1-3 (referencing a similar story involving a family’s home that was swallowed by a sinkhole in Orlando, FL).

⁵ *Id.* (quoting Tom Scott, assistant state geologist for the Florida Geological Survey). See also Florida Department of Environmental Protection, Florida Geological Survey – *Frequently Asked Questions*, <http://www.dep.state.fl.us/geology/feedback/faq.htm#1> (last visited Apr. 10, 2008).

⁶ BARNETT, *supra* note 1, at 2 (citing Ann B. Tihansky, “Sinkholes, West-Central Florida: A Link between Surface Water and Ground Water,” excerpt from DEVIN GALLOWAY ET. AL., *LAND SUBSIDENCE IN THE UNITED STATES*, U.S. Geological Survey Circular 1182, 1999, 121, 132).

residents; attention should also be given to saltwater intrusion into our aquifer from which we derive most of our drinking water. Traditionally, saltwater intrusion was due to groundwater withdrawals near the coastline.⁷ Today there is a new culprit to contend with in addition to those who excessively pump groundwater near the coast. Sea World and Discovery Cove, theme parks in Orlando, Florida, have been leaking saltwater from various sources, such as pools, ponds, and plumbing, into underlying aquifers for the past seven years.⁸ Although spokespersons from the theme parks have stated there is no environmental threat from the leaks, samples drawn from the aquifer below the parks revealed salinity consistent with that of seawater.⁹

Water is Earth's most abundant substance, but only about two and a half percent is fresh and nearly two-thirds of that is in the form of ice or permanent snow cover. As a result everyone on Earth must meet personal freshwater needs from a supply that is less than one percent of all the water on the planet.¹⁰ In Florida, ninety percent of the population gets its freshwater from the groundwater. As Floridians, we are blessed with one of the most productive aquifers in the world, but groundwater withdrawals have caused water levels to decline an average of four to six inches annually, and in some places levels have dropped 100 feet since 1950.¹¹

Although sinkholes threaten to force us out of our homes and saltwater is invading our water supply, Floridians are capable of protecting the interest of all members of the Earth community for generations to come. This paper will argue that Earth Jurisprudence, a novel

⁷ *Id.* at 34-5 (citing RICHARD L. MARELLA AND MARIAN P. BERNDT, WATER WITHDRAWALS AND TRENDS FROM THE FLORIDIAN AQUIFER SYSTEM IN THE SOUTHEASTERN UNITED STATES, 1950-2000, U.S. Geological Survey Circular 1278, 2005, D).

⁸ Scott Powers, *Saltwater pools from SeaWorld, Discovery Cove leaking into aquifers below*, ORLANDO SENTINEL, Jan. 11, 2008, State and Regional.

⁹ *Id.*

¹⁰ United States Geological Survey, *Where is Earth's Water Located?* <http://ga.water.usgs.gov/edu/earthwherewater.html> (last visited Apr. 10, 2008) (citing P.H. GLEICK, ENCYCLOPEDIA OF CLIMATE AND WEATHER: WATER RESOURCES, vol. 2 817-23 (S.H. Sneider ed., Oxford University Press, New York) (1996)).

¹¹ BARNETT, *supra* note 1, at 34, (citing "Sinkholes, West-Central Florida: A Link between Surface Water and Ground Water," excerpt from U.S. Geological Survey Circular 1182, 1999, 121, 132).

legal theory, is a valuable instrument in this restorative process and that it is also capable of responding to Florida's forthcoming water challenges. This analysis will be conducted in four parts. Part I of this article will explain this new Earth Jurisprudence movement and express some of its principles through the philosophies of Cormac Cullinan, author of *Wild Law*, and Father Thomas Berry, author of *The Great Work*. Part II will describe some of Florida's past and present water regulating systems. Part III will examine some of the shortcomings of these systems. Part IV will describe the methods various communities throughout the U.S. have used in response to their freshwater demands. Such as, the environmentally destructive practices of desalination and deep-well injections, or the more environmentally amicable methods of conservation and nature's trust. Finally, this article concludes that Earth Jurisprudence principles provide Florida with a means to address the current problems associated with groundwater withdrawals.

Although I have chosen to apply these principles to a specific local problem, I hope to provide a framework that is applicable to the entire Earth community. While groundwater extraction is the focus, this paper requires a discussion of many issues to help frame my proposal, such as Florida's politics, economic pressures, and loss of wetlands. The Earth community consists of various interconnected and complex relationships that involve the entire natural world including humans. As such, entire papers could be written on any one of these subjects, but this paper is intended to provide only a general analysis concerning Florida's water problems, regulations, and remedies.

I. Earth Jurisprudence

“Seldom do we listen to the wind or feel the refreshing rain except as inconveniences to escape from as quickly as possible.”¹² These are the words of Father Thomas Berry, philosopher, theologian, cultural historian, and earth scholar. He proposes that every member of the natural world has essentially three rights: the right to be, the right to habitat, and the right to fulfill its role in Earth’s ever-renewing processes of life.¹³ Father Berry also suggests that all beings derive spontaneities from the soul and express an inherent value.¹⁴ Thus, he believes that the universe is a communion of subjects (an Earth community) and not a collection of objects.¹⁵ He also notes that complete human development is impossible without the influence of external experience, as provided from the natural world¹⁶ Father Berry describes the intrinsic value of the natural world by demonstrating the way our imagination, emotions, and intellect are stimulated from interactions with the Earth community; as a result our very souls are fulfilled with the deepest of human experience.¹⁷ However, these experiences are at risk because humans refuse to live by the law of limits, which states: every species is constrained by the needs of other species, thus ensuring that one does not overwhelm the others.¹⁸ The industrial system’s propensity to exceed the law of limits has both devastated the Earth’s fertility and given humans an artificial reality.¹⁹ In order to cure this devastation, humans must become more intimate with the Earth community and limit their detrimental impact on it.²⁰

¹² THOMAS BERRY, *THE GREAT WORK: OUR WAY INTO THE FUTURE* 54 (1999).

¹³ *Id.* at 109.

¹⁴ *Id.* at 82.

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *Id.* at 92.

¹⁹ *Id.* at 93.

²⁰ *Id.* at 92-3.

Father Berry proposes that all beings are spiritually connected and that our natural resources provide us with both tangible and intangible benefits. Rather than valuing nature only in economic terms that describe how nature is utilized solely for human gain, he invites our experience of the intangible values. There are many advantages we derive from these resources that are priceless. For example, I experience a sense of great joy and deep appreciation when I spend a day at one of Florida's springs. I was introduced to Florida's crystal clear springs by my Grandmother, who took me to Manatee Springs in Levy County when I was a young boy. I remember spending many summer days during my adolescent years at Manatee Springs, Fanning Springs, Hart Springs, Ginnie Springs, Rainbow Springs, and Three-sister Springs, just to name a few. These springs have provided me with many priceless memories and have shaped the way I view the Earth community. I recall the invigorating feelings induced by these cold waters as I swam with absolute content. I first learned to scuba dive at Manatee Springs when I was sixteen. I have spent countless hours floating on inner tubes down the Santa Fe River and the Rainbow River, both of which are fed by local springs. I recall leaping from the high-dives at Fanning and Hart Springs and feeling like Superman as I sailed through the air and splashed into their chilled waters. I miss the long summer days at Three Sisters Springs in Crystal River where everyone would fill a friend's pontoon boat and waste the day away. I appreciate the times spent with friends and family who joined me during these outings; we played volleyball, grilled out, swam, and most importantly bonded with one another and with nature.

Reflecting upon these times at Florida's springs has helped me to better understand Father Berry's notion that humans are only one member of the Earth community, and that human desires should be limited by the needs of other members.²¹ Also, and most importantly, my connection with Florida's springs has helped me to recognize that nature rewards our positive

²¹ *Id.* at 82, 92-3.

relationships with it by eliciting “the deep experience” referred to by Father Berry in *The Great Work*.²² My research has been directed by these experiences, as I have become more concerned with those entities that threaten to deprive future generations of these valuable moments I hold so dear to my heart. Further, reminiscing about this part of my past has inspired me to become more cognizant of present day relationships with nature and appreciative of those experiences from the past.

A legal system that recognizes nature’s constraints and appreciates our relationship with the Earth community is not only important in maintaining the intrinsic values we derive from nature, but it is also equally vital in ensuring the continuation of all life on this planet.

Law is an instrument used to organize societies by characterizing relationships among individuals, groups and other societies.²³ The American legal system’s support for industry has lead to an exploitation of the natural world.²⁴ From the perspective of our legal system, most of the Earth community is treated as property, we label these natural beings as commodities, and trade them in the market place just as our ancestors once traded slaves.²⁵ A jurisprudence that protects these beings and amends this inequitable relationship is necessary to form a more balanced and sustainable Earth community.²⁶ Earth jurisprudence provides government with a means to direct people’s conduct in such a way that ensures our freedoms do not destroy or prevent other natural beings from accomplishing their evolutionary roles.²⁷

A legal reconfiguration regarding and respecting all members of the Earth community requires a cooperative effort among local, national, and global governments. In March 2000, as

²² *Id.* at 82.

²³ CORMAC CULLINAN, *WILD LAW: A MANIFESTO FOR EARTH JUSTICE* 59 (2003).

²⁴ THOMAS BERRY, *EVENING THOUGHTS*: Sierra Club Books 107 (2006).

²⁵ Cormac Cullinan, *If nature had rights: What would people need to give up?*, ORION, (Jan./Feb. 2008).

²⁶ Cullinan, *supra* note 23, at 91-2.

²⁷ *Id.* at 134.

a result of nearly a decade of discussion and several drafts, the world's first Earth Charter was created by the independent World Charter Commission, whereby worldwide dialogue produced a set of principles that aspire to facilitate global sustainability.²⁸ It has been formally endorsed by thousands of organizations, including the United Nations Educational Scientific and Cultural Organization (UNESCO).²⁹ In April 2001, at the Airlie Center in Virginia, a meeting between London's Gaia Foundation and Father Thomas Berry transpired where the term Earth jurisprudence was first coined.³⁰ These organizations recognized that ecological destruction is not confined by international boundaries, but ultimately has an impact on everyone. As a result, humans need guidance with regard to their interactions with the Earth community. In 2006, the Gaia Foundation and the Center for Earth Jurisprudence also composed twenty core principles that provide a road map to help accomplish this end.³¹

Nature provides us all with a sense of inspiration, but today we give more attention to forms of artificial stimulation. Examples include video-games, theme-park retreats, or holiday cruises. Meanwhile, pure bonds with the natural world are at risk due to the rapid decline of our environment, and unless government agencies and our legal system begin to recognize these sensitive connections, future generations may be deprived of the deep experience Father Berry describes. As such, societies' love affair with industry and its superficial profits must yield to the law of limits, so that all beings may realize their ultimate potential without artificial interference.

²⁸ Earth Charter in Action, *Frequently Asked Questions about The Earth Charter*, http://www.earthcharterinaction.org/2000/10/ecfaq_frequently_asked_questio.html (last visited Apr.10, 2008).

²⁹ *Id.*

³⁰ Judith Koons, *Earth Jurisprudence: The Moral Value of Nature*, PACE ENVTL. L. REV. note 3 (forthcoming 2008), (citing Cullinan, *supra* note 17, at 17 (2003)).

³¹ Gaia Foundation & Center for Earth Jurisprudence, *Core Principles of Earth Jurisprudence* (2006), available at <http://www.earthjuris.org/viewpointdocuments/coreprinciples.htm>. (last visited Apr. 10, 2008).

II. Water Management

Originally, Florida's common law riparian system, which covered surface water and underground streams, allowed landowners to utilize water associated with their property as long as such use did not interfere with another's property interest, but the system did not restrict the consumption of percolating groundwater (water found within the soil).³² As law makers began to realize the link between surface and ground water, the reasonable use standard was adopted, which permitted water use reasonably related to the natural use of a landowner's overlying property and applied to surface water, underground streams, and percolating groundwater.³³ The common law reasonable use standard lacked uniform application, made future planning difficult, and failed to consider ecological needs.³⁴ This inconsistent management of water resources led to the State's adoption of its first major legislation, the 1957 Florida Water Resources Act, which created a state agency tasked to manage and authorize certain uses of both groundwater and surface water deemed to be in excess of reasonable use.³⁵ Ultimately this Act failed to prevent the destruction of our wetlands, declines in water quality, drought related shortages, and saltwater intrusions.³⁶ Although the 1957 Act proved to be insufficient, it led to the drafting of Florida's Model Water Code by a group of water law experts from the University of Florida.³⁷ This code sought to maximize the benefits of traditional common law principles from both the eastern and western states in order to address water quality and quantity concerns.³⁸ Based on this Model Water Code and the shortcomings of the 1957 act, the Florida Water Resources Act

³² Ronald A. Christaldi, *Sharing the Cup: A proposal for the Allocation of Florida's Water Resources*, 23 FLA. ST. U.L. REV. 1063, 1066-67 (1996).

³³ *Id.* at 1068.

³⁴ *Id.* at 1069.

³⁵ *Id.* at 1071-72 (citing Fla. Stat. §§ 373.071-.251 (1967) (repealed by 1972, Fla. Laws ch. 72-299)).

³⁶ *Id.*

³⁷ *Id.* at 1072.

³⁸ *Id.*

was enacted by the legislature in 1972.³⁹ This Act was revolutionary; until its enactment, the reasonable use rule allowed landowners to remove water and injure surrounding neighbors, as long as such use was considered a reasonable exercise of one's property rights.⁴⁰ This enactment provided a more uniform statutory permitting system.⁴¹

The Florida Water Resources Act gives the Department of Environmental Protection the authority to meet such challenges as conservation, protection, management, and control of water resources.⁴² On December 31, 1976, the State was divided into five water management districts, subject to supervision by the Department of Environmental Protection.⁴³ Each management district is controlled by a board of directors appointed by the governor and approved by the Senate to serve a four year term.⁴⁴ Board members, vested with authority from the Department of Environmental Protection, serve a variety of managerial functions that address water supply, flood protection, water quality, and protection of natural ecological systems.⁴⁵

The Florida Water Resources Act, by dividing the State into five districts, allows each region to address problems unique to their defined area.⁴⁶ Under Fla. Stat. § 373.042, management districts are required to set minimum flow for surface waters and minimum levels for ground water, determined to be the point at which further withdrawals would severely impact both water and local ecological resources within their district.⁴⁷ For instance, the St. Johns River Water Management District requires users who consume more than 100,000 gallons of

³⁹ *Id.* (citing 1972, Fla. Laws ch. 72-299 (codified as amended at Fla. Stat. §§ 373.012-.197 (1995))).

⁴⁰ *Vill. of Tequesta v. Jupiter Inlet Corp.* 371 So. 2d 663, 672 (Fla. 1979).

⁴¹ *Id.*

⁴² *Southwest Fla. Water Mgt. Dist. v. Charlotte County*, 774 So. 2d 903, 908 (2 Fla. Dist. Ct. App. 2001).

⁴³ Fla. Stat. §§ 373.069 & 373.073 (2008).

⁴⁴ *Id.*

⁴⁵ Mary Jane Angelo, *Integrating Water Management and Land Use Planning: Uncovering the Missing Link in the Protection of Florida's Water Resources?*, 12 J. LAW. & PUB. POL'Y 223, 226 (2001) (citing Fla. Stat. § 373.016 (2000)).

⁴⁶ Christaldi, *supra* note 32, at 1073.

⁴⁷ *Concerned Citizens of Putnam County for Responsive Gov't, Inc. v. St. Johns River Water Mgmt. Dist.*, 622 So. 2d 520 (5 Fla. Dist. Ct. App. 1993).

water per day to apply for a Consumptive Use Permit.⁴⁸ Additionally, users proposing the construction or development of facilities that affect the storage or flow of water must apply for an Environmental Resource Permit.⁴⁹ Based on each district's objectives, applicants for consumptive use permits are required to satisfy a three-prong test that requires: 1) the use be reasonably beneficial; 2) consistent with the public interest; and 3) not interfere with any presently existing legal use of water.⁵⁰ The Florida legislature interprets reasonably beneficial in this context 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."⁵¹ Only individual domestic users are excused from complying with the permitting system.⁵² The legislature finds that domestic use is "the use of water for individual personal household purposes of drinking, bathing, cooking, or sanitation."⁵³

In *Village of Tequesta v. Jupiter Inlet Corporation*, developer *Jupiter* claimed that denial of its permit application, due to the detrimental effects additional groundwater withdrawals would have on the community, equated to an inverse condemnation.⁵⁴ The Florida Supreme Court denied *Jupiter's* claim.⁵⁵ It ruled that *Jupiter* did not meet the individual domestic user exemption and did not have any rights in the water beneath its property that would qualify a suit for inverse condemnation.⁵⁶

In *Thomas v. Southwest Florida Water Management District*, Thomas's water permit application, which requested an additional 625,000 gallons of water per day to irrigate his land,

⁴⁸ St. Johns River Water Management District [hereinafter SJRWMD], *Water Resource Permitting Information*, <http://sjr.state.fl.us/regulatory/permitinformation.html> (last visited Apr. 1, 2008).

⁴⁹ *Id.*

⁵⁰ Fla. Stat. §§ 373.219 & 373.223(1) (2008).

⁵¹ Fla. Stat. § 373.019(16) (2008).

⁵² *Tequesta*, 371 So. 2d at 671.

⁵³ Fla. Stat. § 373.019(6) (2008).

⁵⁴ *Tequesta*, 371 So. 2d at 665.

⁵⁵ *Id.* at 671.

⁵⁶ *Id.*

was denied by the management district.⁵⁷ The district was concerned with the impact this request would have on the water needs of those living outside of Pasco County.⁵⁸ Essentially the district found that this permit request failed the third-prong (not interfere with any presently existing legal use of water) mentioned above. Thomas claimed he had superior right to withdraw water within Pasco County, and thus the management district improperly considered the water needs of those outside county limits.⁵⁹ The Fifth District Court of Appeals agreed with the management district and concluded that Thomas' interpretation would render the permitting system meaningless.⁶⁰

Some scholars consider Florida's system of regulation, which incorporates private and public needs, among the nations' most comprehensive.⁶¹ However, the following will demonstrate that this balancing process only accounts for human interest at the expense of other members of the Earth community.

III. Florida's Water Crisis

Entering into the 19th century, half of Florida was under water.⁶² The state is served with one of the most productive aquifers in the world and filled with 7,800 lakes and 10,000 miles of rivers and streams.⁶³ Additionally, Florida receives an average of fifty inches of rainfall annually.⁶⁴ It is very hard to accept that a state so blessed, can now be facing a water crisis.

⁵⁷ *Thomas v. Sw. Fla. Water Mgmt. Dist.*, 864 So. 2d 455 (5 Fla. Dist. Ct. App. 2003).

⁵⁸ *Id.*

⁵⁹ *Id.* at 456.

⁶⁰ *Id.* at 457.

⁶¹ Eric Swenson, *Public Trust Doctrine and Groundwater Rights*, 53 U. MIAMI L. REV. 363, 378 (1999) (citing A. DAN TARLOCK ET. AL., *WATER RESOURCE MANAGEMENT* 526 (4 ed. 1993)).

⁶² BARNETT, *supra* note 1, at 43.

⁶³ *Id.* at 33-4.

⁶⁴ SJRWMD, *Florida's Water is Worth Saving*, <http://www.sjrwmd.com/floridaswater/conservation/> (last visited Apr. 4, 2008).

Currently Floridians consume about six and a half to seven billion gallons of freshwater a day.⁶⁵ By 2025 this number is expected to increase anywhere from two to eight and a half billion gallons.⁶⁶ If Floridians are not in a water crisis yet, they soon will be.

This section begins with an example of how a human-dominated interest can fail both present and future members of the Earth community. Next, a brief description of a connection I have with one of Florida's natural wonders, freshwater springs, and how they are being exploited by private interest. Lastly, this section ends by describing a water management district's failure to fulfill its duties and possible legal remedies certain citizens may have.

a. The Everglades

The negative consequences resulting from a poor relationship between humans and the Earth community is best illustrated by the destruction of the Florida Everglades. The Everglades, a natural freshwater storage site, once extended as far north as Orlando⁶⁷ and covered an area forty-miles wide and 100-miles long.⁶⁸ Today the Everglades are still the largest sub-tropical wetland in the United States and cover about two-million acres, which converts to approximately seventy-eight-miles in length and forty-miles in width.⁶⁹ The creation of canals, levees, roads, and other facilities have separated regions of the Everglades, resulting in over drainage in some areas and excessive flooding in others, thus threatening the sustainability of this precious ecosystem.⁷⁰ The Army Corps of Engineers used these methods to drain this

⁶⁵ Tapping New Sources, *Meeting 2025 Water Supply Needs*, http://www.dep.state.fl.us/water/waterpolicy/docs/RWSP_ASR_2006.pdf, 4.

⁶⁶ *Id.*

⁶⁷ BARNETT, *supra* note 1, at 48-50.

⁶⁸ South Florida Water Management District [hereinafter SFWMD], *Background of the Entire Everglades Ecosystem*, https://my.sfwmd.gov/portal/page?_pageid=2294,4947380,2294_4946254&_dad=portal&_schema=PORTAL (last visited Apr. 8, 2008).

⁶⁹ *Id.*

⁷⁰ *Id.*

natural wonder in order to maximize the property's potential for development.⁷¹ Developers who once wanted to get rid of all the water are desperately searching for new sources to serve future residents so that they may sell more homes and land.⁷² In response to the negative effects man's alterations have had on the natural flow of the Everglades and the increased risk imposed on its ecological systems, the State legislature, along with the federal government, has authorized the largest environmental cleanup and restoration project to date, the Everglades Forever Act.⁷³ The 2007-08 budget alone was around \$200 million, and the Army Corps of Engineers expect the total cost of the project to be approximately \$600 million.⁷⁴

The Everglades illustrate the many challenges facing our State's communities. Florida's loss of over nine million acres of wetlands throughout the State has adversely affected our ability to control floods and fires and prevent soil erosion.⁷⁵ Perhaps most importantly, it has greatly reduced our water supply, because wetlands soak up water during the rainy season and release water during the dry season.⁷⁶ As our State continues to grow, the balance between economic prosperity and ecological integrity is only going to become more strained. The destruction of the Everglades represents a failure to recognize the delicate relationships within the Earth community and the detrimental impact our decisions can have when human economic interests prevail over ecological prosperity.

b. Florida's Springs

Florida springs are formed by a process called dissolution, which occurs when limestone close to the surface is dissolved by rainwater that has become acidic from atmospheric carbon

⁷¹ BARNETT, *supra* note 1, at 48-50.

⁷² Larry Evans, *Reflections on Florida's Future: Like a Mirage our Water ebbs away*, SARASOTA HERALD-TRIBUNE, Nov. 11, 2007, at F1 (Cynthia Barnett interview).

⁷³ Fla. Stat. § 373.45926 (2008).

⁷⁴ *Governor Crist Highlights Florida's Efforts to Restore Everglades*, STATES NEWS SERVICE, Jan. 11, 2008.

⁷⁵ Evans, *supra* note 72.

⁷⁶ *Id.*

dioxide.⁷⁷ This process creates sinkholes, cavities, and caves within the limestone known as karst.⁷⁸ When aquifer levels rise through the karst onto ground surfaces, springs are created.⁷⁹ There are over 700 freshwater springs in Florida, one of the largest concentrations in the world.⁸⁰

Today, Florida's cherished springs are being exploited by the bottled water industry, which have collectively been granted withdrawal permits allowing approximately ten million gallons a day to be pumped from our aquifer and then sold back to consumers at astounding profits considering the small price these companies have to pay for such groundwater extraction rights to begin with, if any price at all.⁸¹ Although this amount may not seem very large to some who consider the 155 million gallons of water certain pulp and paper mills consume, it is not right to ask citizens to sacrifice their water needs while various industries are allowed to make use of our water resources and profit.⁸²

In 2004, Nestle, a Swiss company that accounts for one-third of the water-market in America, began operating a bottled water facility in Madison County, a North Florida community that is home to Madison Blue Springs State Park.⁸³ Nestle obtained its permit from a previous landowner who was approved to withdraw groundwater in 1998.⁸⁴ This permit, which only cost \$230, does not expire until 2018.⁸⁵ A Suwannee River Water Management District memorandum dated November 15, 2002 recommended Nestle's permit be reduced from 1.47 million gallons a day to 400,000 gallons a day, in order to help offset an eleven million gallon a

⁷⁷ Florida Department of Environmental Protection, Florida Springs – *Frequently Asked Questions*, <http://www.dep.state.fl.us/springs/faq.htm> (last visited Apr. 1, 2008).

⁷⁸ *Id.*

⁷⁹ *Id.*

⁸⁰ *Id.*

⁸¹ Evans, *supra* note 72.

⁸² *Id.*

⁸³ Ivan Peen, *Bottler takes millions of gallons of water for \$230*, ORLAND SENTINEL, Mar. 30, 2008, at B1.

⁸⁴ *Id.*

⁸⁵ *Id.*

day reduction in spring activity due to drought.⁸⁶ Ultimately the district's advice was disregarded, as gubernatorial appointees, enticed by the economic advantages, granted the original permit.⁸⁷ Even as communities make plans to deal with their water shortages, bottlers like Niagara are requesting permit approval from the St. John's River Water Management District.⁸⁸ Lake County citizens and officials value their water resources over the economic advantages that would be brought to their community by Niagara's water-bottle company.⁸⁹ However, the management district is considering Niagara's request despite Lake County's denial to offer economic incentives that would assist the water company in building a local plant that would bring hundreds of jobs and tax benefits to the community.⁹⁰

Recently, Senator Saunders of the thirty-seventh district and Senator Jones of the thirteenth district co-introduced the Florida Springs Protection Act, which is now under review in the Department of Community Affairs.⁹¹ Through the cooperation of various government entities and the promotion of good stewardship, this Act creates a pilot program that will serve as a model in restoring the ecological balance of Rainbow and Silver Springs in Marion County.⁹² Although only two of Florida's 700 springs are targeted by this attempt at preservation, legislation such as this demonstrates Florida's recognition of the need, and the desire, to repair the detrimental impact humans have had on the rest of the Earth community.

⁸⁶ *Id.*

⁸⁷ *Id.*

⁸⁸ *Another bottler is seeking water permit in Lake County*, ORLANDO SENTINEL, Mar. 30, 2008, at B4.

⁸⁹ *Id.*

⁹⁰ *Id.*

⁹¹ Florida Senate, Senate 2394: *Relating to Protection of Springs*, http://www.flsenate.gov/Session/index.cfm?Mode=Bills&SubMenu=1&Bill_Mode=ViewBillInfo&Year=2008&BillNum=2394 (last visited Apr. 8, 2008). *See also* S.B. 2394, 110th Reg. Sess. (Fla. 2008).

⁹² S.B. 2394, 110th Reg. Sess. (Fla. 2008).

c. Water Management Accountability

The managing water districts are not infallible and should be closely monitored to ensure their duties are completely fulfilled. For instance, when a management district fails to set minimum flow for surface water and level standards for groundwater, but continues to issue consumptive use permits (subject to the three-prong test⁹³), there must be a legal remedy that holds such management district accountable. Critics of the three-prong test argue that the first-prong, reasonably beneficial use, and the third-prong, consistent with the public interest, are usually interpreted to allow the public environmental interest to be outweighed by other state objectives.⁹⁴ As an example, Swenson articulates the adverse effects large municipal groundwater withdrawals have on various surface water-ways (the Earth community) when human interest in potable water exceeds environmental concerns.⁹⁵

In *Concerned Citizens of Putnam County for Responsive Gov't, Inc. v. St. Johns River Water Management District*, a not-for-profit organization brought suit seeking injunctive relief to prevent excessive water withdrawals until the Management District established minimum flow and level standards, so that local water and ecological resources could replenish themselves.⁹⁶ The trial court dismissed the case claiming *Concerned Citizens* did not have standing, but on appeal the Fifth District Court of Appeals stated that under Fla. Stat. § 403.412 *Concerned Citizens* did have standing to bring suit and remanded the case to be considered on the merits.⁹⁷

In short, Fla. Stat. § 403.412: The Florida Environmental Protection Act provides that citizens of the State may maintain an action for injunctive relief against State agencies who fail

⁹³ Fla. Stat. §§ 373.219 & 373.223(1) (2008).

⁹⁴ Swenson, *supra* note 61, at 379.

⁹⁵ *Id.*

⁹⁶ *Concerned Citizens of Putnam County for Responsive Gov't, Inc.*, 622 So. 2d at 521.

⁹⁷ *Id.* at 521-524.

to fulfill their duties in protecting the State's air, water, or other natural resources.⁹⁸ However, prior to suit, such citizen must first file with the particular agency stating the facts underlying their claim, how the agency's failure to fulfill its duties has affected the citizen and allow the agency thirty days to address the problem before seeking a judicial proceeding.⁹⁹ Further, a not-for-profit corporation such as *Concerned Citizens* may also initiate a hearing if it has existed one year prior to the agency action in question, has at least twenty-five members residing within the county where the controversy is taking place, and was organized specifically to protect air/water quality, the environment, fish, or wildlife resources.¹⁰⁰ This citizen suit provision gives community members the means to hold government agencies, like the water management districts, accountable and could serve as a valuable tool in protecting the interest of all members of the Earth community.

With some of the nation's most comprehensive regulations in place and with what appears to be sufficient water resources, why are people losing their homes to sinkholes, why are lake beds drying up, and why are thousands of our wells going dry?¹⁰¹ Florida's permitting system has allowed wetland destruction throughout the State and has over-allocated groundwater resources, as developers persuade water managers to grant them water permits beyond what is environmentally sustainable.¹⁰² Further, remediating ecological destruction is expensive and forces a diversion of funding that could be allocated to other programs or projects. Additionally, economic incentives, such as for bottled water production, sometimes outweigh the public's interest in natural resources, thus circumventing a number of the 1972 Florida Water Resources Act objectives. The goals of the proposed Florida Springs Protection Act are promising and

⁹⁸ Fla. Stat. § 403.412(2) (2008).

⁹⁹ Fla. Stat. § 403.412(2)(c) (2008).

¹⁰⁰ Fla. Stat. § 403.412(6) (2008).

¹⁰¹ BARNETT, *supra* note 1, at 36.

¹⁰² Evans, *supra* note 72.

indicate a desire to amend some of our past transgressions on the natural world. It may be that, when management districts fail to perform their duties, they will need to be enforced through the citizen-suit remedy our legislature has provided, as noted in *Concerned Citizens*.

IV. Solving the Water Crisis

In response to Florida's water crisis there have been a variety of solutions put forth to address increased water demands. Industry, disregarding the law of limits, has proposed the desalination of sea water and deep-well water injections, both of which attempt to modify our environment to satisfy our freshwater needs.¹⁰³ There are also persons who feel that our water resources are best managed by private water utilities or allocated most appropriately in water markets.¹⁰⁴ Possibly the simplest and most effective solution to this crisis is educating Floridians on how to become more conservative with their water. Lastly, some legal scholars recommend an application of the public-trust doctrine to our water resources and a change of view that considers nature's resources as property held in trust for future generations.¹⁰⁵ The following will provide a general overview of these practices and principles, while stating some benefits and criticisms.

a. Desalination

Florida currently has 120 desalination plants located near the coastline, more than any other state.¹⁰⁶ In January 2008, fourteen miles south of Tampa at Apollo Beach, local officials opened the largest desalination plant in the United States, which cost approximately \$158

¹⁰³ See generally Ken Foskett, *Tampa's asset a cautionary tale*, THE ATLANTA JOURNAL-CONSTITUTION, February 17, 2008 at 3C; See generally Rachel Simmons, THE PALM BEACH POST, *Lake O Wells May Yield Water Storage Answers*, June 30, 2006 at B1.

¹⁰⁴ See generally Mike Esterl, The Wall Street Journal, *Global Private Water Business Is All Wet; Critics Gang up to Foil Efforts to Raise Rates*, CHICAGO TRIBUNE, July 22, 2006 at W19.

¹⁰⁵ See generally Swenson, *supra* note 61; See generally Mary Christina Wood, *Nature's Trust: Reclaiming an Environmental Discourse*, 25 VA. ENVTL. L.J. 243 (2007).

¹⁰⁶ *Id.*

million.¹⁰⁷ Coastal communities considering production of their own plant should take notice that although the Tampa plant is expected to support ten percent of the region's water demand, it was five years behind schedule, forty-eight million dollars over budget, and has an annual utility bill somewhere between eight to ten million dollars.¹⁰⁸

The St. Johns River Water Management District is threatening to prevent the drilling of new wells beginning in 2013.¹⁰⁹ In response, Central Florida officials are cooperating with the St. Johns River Water Management District to devise a plan that will satisfy their freshwater demands, which are expected to grow as much as fifty percent over the next twenty years.¹¹⁰ With their regions' increase in population, officials expect that in a few years the cost of potable water will be five to seven times as much as current rates.¹¹¹ The management district is hoping to relieve the Florida aquifer and preserve our springs, wetlands, and lakes, by building three to five desalination plants within the next five years, which will make approximately 100 million gallons of river and ocean waters drinkable per day.¹¹²

At first glance, because Florida has approximately 1,350 miles of coastline, desalination appears to be a suitable answer to many of our freshwater concerns.¹¹³ However, the management district estimates that the cost of the new facilities will be approximately one billion dollars.¹¹⁴ Additionally, while Central Florida residents currently pay about one to one-and-a-half dollars per 1,000 gallons of freshwater, officials expect that the cost of making river water drinkable will be a little more than three dollars per 1,000 gallons, and to make the same amount

¹⁰⁷ Foskett, *supra* note 103.

¹⁰⁸ *Id.*

¹⁰⁹ Kevin Spear, *Tap river, ocean? Brace for Bills*, ORLAND SENTINEL, March 29, 2008, at A1.

¹¹⁰ *Id.*

¹¹¹ *Id.*

¹¹² *Id.*

¹¹³ National Atlas, *Where We Are*, http://nationalatlas.gov/articles/mapping/a_general.html (last visited April 2nd, 2008).

¹¹⁴ Spear, *supra* note 109.

of ocean water potable will cost about seven dollars.¹¹⁵ When one considers the poor economy and the rising fuel and energy rates, desalination maybe too high a cost for tax payers to bear.

b. Water Privatization

Cynthia Barnett, author of *Mirage: Florida and the Vanishing Water of the Eastern U.S.* and a major inspiration for this paper, describes two elements of water privatization, water markets and privatization of water utilities.¹¹⁶ “Where scarcity exists, markets emerge.”¹¹⁷ Although they have never been sanctioned under Florida law, water markets are formed when managers and users create a permit trading system that reduces groundwater pumping, but still satisfies water needs.¹¹⁸ These permits are traded as commodities by brokers, whereby existing users transfer a portion of their permitted consumption to other users, but in order to do so the user must agree to surrender some amount of his remaining balance.¹¹⁹ Barnett illustrates this point with a typical transaction involving a farmer who has a permit to withdraw two million gallons per day and a golf facility that wishes to purchase the rights to half of the farmer’s allowance.¹²⁰ The two parties and the management district contract a deal, usually through a broker, which allows the farmer to transfer one million gallons per day to the golf course facility, if he gives up half of his remaining one million gallons.¹²¹ The management district closes its eyes to the financial arrangement, so long as there is a net benefit to water resources.¹²² Barnett considers this process to be problematic because the market is relatively unregulated with little oversight, and does not allow for public disclosure.¹²³ This process will reward those buyers

¹¹⁵ *Id.*

¹¹⁶ BARNETT, *supra* note 1, at 162-63.

¹¹⁷ *Id.* at 163.

¹¹⁸ *Id.* at 161, 163.

¹¹⁹ *Id.* at 162.

¹²⁰ *Id.*

¹²¹ *Id.*

¹²² *Id.* (Author interview with Michael Molligan, spokesman for the Southwest Florida Water Management District).

¹²³ *Id.*

willing to spend the most money, while users who may be more environmentally responsible and viewed more favorably by the public are neglected.¹²⁴

Private companies are responsible for approximately twenty percent of the water systems in the United States.¹²⁵ Water privatization has had its greatest impact on poorer nations because the World Bank has forced governments to privatize utilities in exchange for loans.¹²⁶ From the late 1990's through beginning of the next millennia, German and French companies purchased three of the largest U.S. private water utilities at a cost of nearly twelve billion dollars.¹²⁷ American municipalities thought that privatization would lead to an upgrade in facilities and increase efficiency through better management practices.¹²⁸ However, these powerful companies soon realized that water utilities, unlike electricity, are best served when operated by regional companies who can better deal with the local communities and policy makers.¹²⁹ As such, these foreign corporations began to sell a large portion of their U.S. interest.¹³⁰ Municipally operated utilities are often more competitive in the market place because they receive various tax benefits and government subsidies.¹³¹ In other words, the unique characteristics of each community are best accounted for by public utilities and the traditional benefits private companies offer are not applicable to the U.S. water system. Besides, would you want your community's water operated by a foreign enterprise that is only concerned with profit margins?

¹²⁴ *Id.*

¹²⁵ *Id.* at 163.

¹²⁶ *Id.* at 163-64 (The World Bank refused to guarantee a \$25 million loan unless Bolivia turned its water over to private enterprises. The private company only put \$20,000.00 towards the \$25 million, but expected to earn \$58 million annually. The private company's price increase made it nearly impossible for the majority of Bolivia's population to afford water and even charged the people for water collected from rain barrels. This led to a citizen uprising in 2000, which ultimately forced the private company to relinquish its water rights to a citizen-controlled nonprofit company).

¹²⁷ *Id.*

¹²⁸ Esterl, *supra* note 104 (*See also*, Barnett, *supra* note 1, at 162-63).

¹²⁹ *Id.*

¹³⁰ *Id.*

¹³¹ *Id.*

c. Deep Well Injections

In response to Florida losing its natural water reservoir, nearly nine million acres of wetlands,¹³² the Army Corps of Engineers and the South Florida Water Management District devised an aquifer storage and recovery well program in June 2006.¹³³ The goal of the program is to gather excess water from lakes and rivers during the wet season and store it 1,200 feet below ground so that water managers may have access to alternative freshwater supplies during times of drought.¹³⁴ This deep well storage program is part of the Everglades restoration plan that will involve drilling 333 wells over a six year period and will store an estimated 1.6 billion gallons of water per day.¹³⁵ In addition to providing a freshwater storage site, these wells prevent discharges from Lake Okeechobee that adversely impact local species, but it remains unclear what effect the construction of so many wells will have on the overall environment.¹³⁶

This sounds like a great idea; Floridians can both protect various species and store large amounts of freshwater to meet their needs during times of drought. However, it may not be as simple as that. In 2000 the City of West Palm Beach began a \$1.7 million deep well storage project that was one of the largest of its kind.¹³⁷ Seven years later, officials were considering abandoning this project, as scientific evidence revealed that when extracted, injected water had increased levels of arsenic due to chemical reactions that take place in underground rock

¹³² Evans, *supra* note 72.

¹³³ Simonsen, *supra* note 102. (SEE Parallel citation w/ Fosket)

¹³⁴ *Id.*

¹³⁵ *Id.*

¹³⁶ *Id.*

¹³⁷ Thomas R. Collins, the Palm Beach Post, *Drought Hits, But Well Sits Unusable*, May 26th, 2007 at A1.

formations.¹³⁸ Evidence has also revealed that bacteria in the deep wells lives longer than originally expected, which could lead to more unanticipated consequences.¹³⁹

If Florida had not lost so much of its wetlands to begin with, deep well injections would not be necessary. Further, this process is expensive and potentially threatening to both humans and the environment. While there appear to be many solutions offered to answer our freshwater needs, altering our environment to serve only human interest will not promote a sustainable Earth community.

d. Conservation

Despite increased efficiency and efforts to become more conservative, Florida's demand for freshwater has increased nearly fifty percent since 1970.¹⁴⁰ Most of the U.S. has seen its demand decline during this time.¹⁴¹ As Florida grows so does her thirst, from 1970 to 2003 state population grew by more than ten million people.¹⁴² Water supply, the ability to control floods, and overall environmental health are all jeopardized as Florida's water resources are strained by this increase in population.¹⁴³

Persons residing within the St. Johns River Water Management District use, on average, a little more than six and a half gallons of freshwater every hour, 160 gallons throughout the day, and 4,800 gallons each month, which adds up to 58,400 gallons per person annually.¹⁴⁴ These numbers are astonishing, considering the fact that the average adult can sustain his or her well-

¹³⁸ *Id.*

¹³⁹ *Id.* (quoting Joe May, the underground injection control program manager in the Department of Environmental Protection's West Palm office).

¹⁴⁰ BARNETT, *supra* note 1, at 38 (citing Richard L. Marella and Marian P. Berndt, "Water Withdrawals and Trends from the Floridian Aquifer System in the Southeastern United States, 1950-2000," U.S. Geological Survey Circular 1278, 2005, 15).

¹⁴¹ *Id.*

¹⁴² Florida Charts, *Florida's Population*, <http://www.floridacharts.com/charts/AtlasIntro.aspx?ID=3> (last visited Mar. 26, 2008).

¹⁴³ Angelo, *supra* note 45, at 224.

¹⁴⁴ SJRWMD, *Florida Water Star: Stewardship Starts at Home*, <http://sjr.state.fl.us/floridawaterstar/index.html> (last visited Apr. 4, 2008).

being with about two and a half quarts of water per day.¹⁴⁵ So if humans can adequately support their vitality on a little more than half a gallon of water per day, why are we using 160 gallons?

The district's population is expected to reach approximately six million people in 2025, which will have increased water demands by thirty percent since 1995.¹⁴⁶ Although Florida receives about fifty inches of rainfall annually, only thirteen inches of water actually makes its way to the aquifer.¹⁴⁷ As previously stated, on average, Florida's aquifer levels drop about four to six inches each year.¹⁴⁸ Where will aquifer levels be if Floridians cannot find a way to be more conscious of their water needs?

Roughly fifty percent of residential water is unnecessarily used to irrigate lawns.¹⁴⁹ The Florida legislature has recognized this problem and implemented the Landscape Irrigation Design Statute that requires various government agencies at State and local levels to work with one another and homebuilders in an effort to produce more water efficient landscapes.¹⁵⁰ Additionally, older shower heads can waste as much as five gallons per minute and antiquated toilets can use an extra 200 gallons of water per day.¹⁵¹ For these reasons, the St. Johns River Water Management District has created the Florida Water Star program that is similar to the energy star program, which most of us are familiar.¹⁵² These programs save homeowners money each month as their utility bills are reduced, while simultaneously allowing them to make environmentally conscious decisions.¹⁵³

¹⁴⁵ SJRWMD, *Florida's Water is Worth Saving*, *supra* note 56.

¹⁴⁶ Water for the Future, *Water Supply Assessment and Water Supply Plan*, http://sjr.state.fl.us/publications/pdfs/fs_watsupply_assessment.pdf 1.

¹⁴⁷ SJRWMD, *Florida's Water is Worth Saving*, *supra* note 56.

¹⁴⁸ BARNETT, *supra* note 10.

¹⁴⁹ Evans, *supra* note 72.

¹⁵⁰ Fla. Stat. § 373.228 (2008).

¹⁵¹ SJRWMD, *Florida Water Star: Stewardship Starts at Home*, *supra* note 132.

¹⁵² Florida Water Star, *Encourage Efficiency at Home*, http://sjr.state.fl.us/publications/pdfs/fs_waterstar.pdf

¹⁵³ *Id.*

e. Public/Nature's Trust Doctrine

A trust is an essential form of ownership where one, a trustee, administers property, the corpus, for the benefit of another, a beneficiary.¹⁵⁴ Every trust requires that the trustee protect and defend the corpus against injury and restore it after such injury.¹⁵⁵ The public trust doctrine has traditionally been applied to protect the public's interest in the underlying beds of navigable waterways and the "traditional triad" of uses: navigation, commerce, and fishing.¹⁵⁶ The public trust doctrine's breadth and substantive content provides American citizens with the best approach to meet their resource management problems.¹⁵⁷ Swenson proposes that water resources are public in nature and therefore the State has a fiduciary duty to regulate them for the benefit of the general community.¹⁵⁸ He suggests that the State is obligated to review its allocation of water rights when the public's interest is infringed.¹⁵⁹ In other words, he proposes that although a consumptive permit may have been issued to a user, it may be revoked if upon further review the issuing authority determines such use is detrimental to the public's interest in groundwater.¹⁶⁰ This application of the public trust doctrine to groundwater protects the public's interest, assists management districts in avoiding judicial recourse when their decisions conflict

¹⁵⁴ Mary Christina Wood, *Nature's Trust: A Legal, Political, and Moral Frame for Global Warming*, 34 B.C. ENVTL. AFF. L. REV. 577, 595 (2007) (citing: 90 C.J.S. *Trusts* § 6, at 129 (2002)).

¹⁵⁵ *Id.* at 595-96 (citing: 76 AM. JUR. 2D *Trusts* § 404, at 455 (2005)).

¹⁵⁶ Swenson, *supra* note 61, at 363 (citing: *See Shively v. Bowlby*, 152 U.S. 1 (1894); *Illinois Cent. R.R. v. Illinois*, 146 U.S. 387 (1892); *Martin v. Waddell*, 41 U.S. 367 (1842); *Nat'l Audubon Soc'y v. Superior Court of Alpine County*, 658 P.2d 709, 719 (Cal. 1983)).

¹⁵⁷ Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 MICH. L. REV. 471, 474 (1970).

¹⁵⁸ Swenson, *supra* note 61, at 390.

¹⁵⁹ *Id.*

¹⁶⁰ *Id.* at 380.

with permitted users, and encourages water alternatives that are more environmentally friendly.¹⁶¹

Swenson's proposal is similar to a philosophy set forth by Professor Mary Christina Wood, known as Nature's Trust. Wood contends that our environmental crisis is not a result of faulty regulations or even a lack thereof, but is a consequence of agencies failing to properly implement those regulations.¹⁶² Agents are prohibited from enforcing our environmental regulations as politics and economics demand they make choices between job security and career suicide.¹⁶³ Wood also suggests that discretionary permitting systems have invited these corruptive influences, which circumvent the goals of our environmental statutes.¹⁶⁴ The property interest of individual landowners is given greater priority than the public's environmental interest.¹⁶⁵ As such, most agencies focus on permitting uses, rather than prohibiting them, resulting in the legalization of our ecological destruction.¹⁶⁶ The irony is that this destruction can render property rights valueless anyway, as various natural disasters occur, such as a sinkhole swallowing one's home, in response to government's failure to properly monitor environmental conditions.¹⁶⁷

In response, Wood advocates that government is a trustee of those resources essential to human survival and everyone, even future generations, is a beneficiary within the traditional trust concept.¹⁶⁸ A 1993 decision by the Philippine Supreme Court demonstrates an application of nature's trust, which may serve as guidance to preserving our natural resources in favor of future

¹⁶¹ *Id.* at 391.

¹⁶² Wood, *supra* note 154, at 596-99.

¹⁶³ Wood, *supra* note 105, at 255.

¹⁶⁴ Wood, *supra* note 154, at 592-93.

¹⁶⁵ *Id.* at 577, 601.

¹⁶⁶ *Id.* at 592-93.

¹⁶⁷ *Id.* at 602.

¹⁶⁸ *Id.* at 595.

generations.¹⁶⁹ The Philippine rainforest, which once covered over fifty percent of the country's land, was at risk of complete destruction as its size had diminished to less than three percent over a twenty-four year period.¹⁷⁰ Parents, representing their children, sought an injunction that would preserve the country's remaining rainforest.¹⁷¹ The government believed that the logging practices were a political question and decisions regarding the rainforest should be left to their discretion.¹⁷² The court held that the rainforest was property held by the government for the benefit of minors and future generations.¹⁷³ Further, continued logging practices were damaging and injurious to these beneficiaries as its loss would prevent them from enjoying this rare natural resource.¹⁷⁴ The Philippine Supreme Court realized that continued exploitation of our natural world would leave succeeding generations with a habitat that is incapable of sustaining life and ruled in favor of the children.¹⁷⁵

Although Wood's concept of trust was articulated to combat the potential effects of global warming, its content is equally applicable to Florida's freshwater concerns. Swenson's concept that the public trust doctrine should be applied to Florida's groundwater problems would only be an adequate remedy if government agencies began to view themselves as enforcers of nature's trust. However, if such agencies continue to value individual property rights and the tax benefits derived from entities like bottled water companies or new homeowners, Florida can expect its water resources to continue along its path of destruction. The Philippine judicial system's view of government's trust responsibility offers us valuable guidance in combating

¹⁶⁹ Wood, *supra* note 105 at 263-65 (citing Jan G. Laitos, Sandra B. Zellmer, Mary C. Wood, & Dan H. Cole, Natural Resources Law 441-44 (2006) (quoting and discussing *Juan Antonio Oposa v. Fulgencio S. Factoran, Jr.*, G.R. No. 101083 (Sup. Ct. of the Phil. 1993)).

¹⁷⁰ *Id.*

¹⁷¹ *Id.*

¹⁷² *Id.*

¹⁷³ *Id.*

¹⁷⁴ *Id.*

¹⁷⁵ *Id.*

political decisions, which favor these economic forces. Future generations will not survive without adequate freshwater resources. Therefore we have a moral obligation to ensure that our descendants inherit an Earth that is capable of supporting their needs.

Florida's solutions to increased water shortages appear to be almost as prevalent as the rules and regulations designed to prevent such shortages. Desalination is an expensive process. It may impose potential risks on the environment that are now unknown. For instance, where does the excess salt get disposed of and what effects might that have on local beings. Also, desalination most likely will only be available to communities near rivers or oceans. Deep-well injections not only threaten humans, by increasing arsenic levels in water stored underground, but are also costly and potentially hazardous to the environment. Freshwater is essential to the survival of all humans and many species; therefore water markets and private water utilities should not be entrusted with its care or distribution, as they are not in the role of trustee to serve the public's best interest. Conservative water practices throughout the State may be both the least demanding and most beneficial solution. Lastly, if government agencies and politicians view their duties through nature's trust, our current water regulations will fulfill their intended objectives.

V. Conclusions

Humans are intimately connected to the Earth's beings and resources and our well-being depends on their preservation. In addition to our physical needs, nature fulfills us both emotionally and spiritually. Exploiting nature's beings and resources to satisfy only our physical needs through monetary gains threatens to deprive us and future generations of complete inner development. Additionally, such short-sighted decisions threaten to inhibit Earth's ability to support all life, including humans. Earth Jurisprudence seeks to prevent nature's abuse and

rejects human-centered perceptions of the world that fail to account for other beings' right to exist. Humans must learn to live within the "law of limits" and seek to protect all beings' right to existence.

The mismanagement of Florida's water resources has placed the State in a precarious position as we plan for the future. A plethora of human-centered rules, regulations, and governing authorities have failed to adequately preserve our freshwater resources. One result of this failure has led to the State's implementation of the most expensive and elaborate environmental restoration project ever attempted in the history of man. Fortunately there are politicians who recognize the vital role Florida's groundwater plays in sustaining life throughout the Earth community and are drawing up legislation like the Florida Springs Protection Act. Additionally, the *Concerned Citizens* case illustrates a possible judicial remedy citizens can pursue in order to ensure our State agencies fulfill their mandated obligations.

The encouraging news is that there is a growing concern for our water resources at many levels of government and in communities throughout the State. But simply finding alternatives to groundwater consumption will not be enough to protect all members of the Earth community. There are unknown environmental consequences to solutions such as desalination and deep-well injections. A vital public resource such as water should not be traded like a commodity or be placed in the hands of a private company. By curbing our wasteful practices, we can save not only our wallets from expensive freshwater alternatives, but we may also preserve treasures like the Florida Springs and the ecological communities of the Everglades. Finally, a community-wide commitment to nature's trust can help adjust both agency and judicial perceptions by obligating them to consider our natural freshwater within a context that overcomes the private

economic interest of land developers, water-bottlers, and any other entity that fails to fully consider its impact on the entire Earth community.

The preservation of Florida's groundwater requires each of us to do our part. Politicians should seek to create more legislation like the Florida Springs Protection Act, but more importantly their policy decisions should come from an earth-centered perspective. All levels of government must be involved in this process; both to ensure statewide consistency and to guarantee that a community's unique characteristics are not overlooked. Citizen suit provisions are one way our judicial system can hold agencies accountable, but this course of action is only viable if the public takes advantage of such provisions by first complying with the necessary prerequisites and by actually bringing their claim before the court. Perceiving Florida's groundwater as a corpus within nature's trust could be a more flexible and appropriate remedy that is less likely to be overcome by corruptive influences. Groundwater advocates in such a structure could provide the necessary checks and balances that would ensure our environmental destruction is no longer legalized through the permitting process. Lastly, educating ourselves to become more efficient with the use of water and less wasteful is a simple and inexpensive way we can all contribute to preserving Florida's groundwater.

“Our responsibility to the Earth is not simply to preserve it, it is to be present to the Earth in its next sequence of transformations. While we were unknowingly carried through the evolutionary process in former centuries, the time has come when we must in some sense guide and energize the process ourselves.”¹⁷⁶

¹⁷⁶ BERRY, *supra* note 12, at 173.