

## Our Water, Our Future Part 1: The state of our State

There are generally two perspectives shared by residents of Florida regarding our water resources. One held by the Boomer Generation, born or raised here recognizes we have lost much of our water resource wealth since WWII. The other is shared by those more recent residents who may not have reference to such change and therefore see little objection to the current state of affairs. Ask either group these questions and you will hear wildly disparate responses: *Do you know of a lake, river or estuary in Florida that is as healthy and productive today as when you first saw it? Do you know of two?*

Florida was once considered a vast swampy peninsula fit more for beast than man. With little consideration of long term impacts and a great zeal for a pot of gold at the end of the development rainbow, the draining of Florida began in the mid to late 1800s. The state and federal governments dispensed with inducements to entrepreneurs and the road to present day Florida was paved.

Reclaiming the land was a daunting, but not insurmountable task. Unlike water quantity, which is finite, the force of will to make Florida “habitable” was and remains unconstrained by supply. Canals were dug, wetlands drained and land made more accessible for development and speculation. The many schemes worked collectively to provide for vast acreage, suitable for both agriculture and urban development. One of Florida’s first invasive plants, the melaleuca, was introduced to aid in achieving this objective.

Today we live in a different land, one which demonstrates several truths. One, if you drain it they will come. Two, if you drain it you will have much less water. Perhaps a third, if one is picky, you will have altered the climate. We drained vast wetland systems, especially in south and central Florida and now experience regional reductions of rainfall and cooler winters because vast areas of surface water were eliminated which moderate temperatures and promote aquifer recharge.<sup>1</sup>

Because vast areas of wetlands have been destroyed and developed, surface water drainage is no longer a leisurely event. Instead, the sometimes torrid rate of run off may result in localized flooding for those living in low lying areas, or fish kills in our lakes and rivers.

Today, we have a population in the range of 18,000,000 residents. In south Florida the water district recently launched a comprehensive water plan which calls for water consumption reduction goals which may well result in restrictions that are permanent.<sup>2</sup> South Florida has the highest per capita public use rate in the State, about 179 gallons per day. Overall, agricultural consumption in the region accounts for 53% and power

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<sup>1</sup> Cynthia Barnett, *Mirage* University of Michigan Press 2007, 15

<sup>2</sup> [https://my.sfwmd.gov/portal/page?\\_pageid=2814,22710388&\\_dad=portal&\\_schema=PORTAL](https://my.sfwmd.gov/portal/page?_pageid=2814,22710388&_dad=portal&_schema=PORTAL)

generation uses about 10% of all South Florida Water District (District) consumption. The fraction attributed to public consumption is that part which comes from your tap, or that used by golf courses or commercial activities and it is the smaller portion of regional consumption.

Our water comes from the sky and we are using it, or dispensing with it faster than rainfall renews our aquifers. The broad and ongoing destruction of our wetlands promotes rapid run off and less recharge to our aquifer. As wetlands are destroyed the natural filtering systems they provide no longer thoroughly clean the water which manages to recharge our ground water. We lose quantity and quality as a result. One of the South Florida District's web pages states:

***“Water conservation can cost as little as 6 cents to 72 cents per 1,000 gallons of water saved, while the cost of constructing alternative water supply facilities can range from \$5 to \$7 per 1,000 gallons of water created.”***

Murphy's Law states simply, “Anything that can go wrong will go wrong and do so at the worst possible moment.” No better example exists than the travails of Tampa Bay Water Authority. This is the regional water supply agency for the greater Tampa area and as recently reported, they have their share of problems. Their manmade reservoir has more cracks than water. Their surface water supplies dried up during the drought and the high tech solution, a desalinization plant, is not operating at capacity nor does it meet demand.

This leads to questions: Do you want to pay the bills attendant to current water supply sources, or the alternative? Are legislative mandates for water management in Florida adequate to meet future needs or maintain our current position?

What is Florida's water resource future?

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Our Water, Our Future  
Part 2: The Law

The Florida Constitution, Article II, Section 7 (a) states: *It shall be the policy of the state to conserve and protect its natural resources and scenic beauty. Adequate provision shall be made by law for the abatement of air and water pollution and of excessive and unnecessary noise and for the conservation and protection of natural resources.*

The legal support for those simple words is found in Florida Statutes (FS) 373 and 403. The law is implemented via Florida Administrative Code (Code) and administered by the Water Districts and the Florida Department of Environmental Protection (DEP).

Legislative policy intended to defend our water and natural systems is clearly presented in FS 373:

**Florida Statute 373.016: Declaration of policy.--**

- (1) The waters in the state are among its basic resources. Such waters have not heretofore been conserved or fully controlled so as to realize their full beneficial use.
- (2) The department and the governing board shall take into account cumulative impacts on water resources and manage those resources in a manner to ensure their sustainability.
- (3) It is further declared to be the policy of the Legislature:
  - (a) To provide for the management of water and related land resources;
  - (b) To promote the conservation, replenishment, recapture, enhancement, development, and proper utilization of surface and ground water;
  - (c) To develop and regulate dams, impoundments, reservoirs, and other works and to provide water storage for beneficial purposes;
  - (d) To promote the availability of sufficient water for all existing and future reasonable-beneficial uses and natural systems;
  - (e) To prevent damage from floods, soil erosion, and excessive drainage;
  - (f) To minimize degradation of water resources caused by the discharge of stormwater;
  - (g) To preserve natural resources, fish, and wildlife;
  - (h) To promote the public policy set forth in s. 403.021;
  - (i) To promote recreational development, protect public lands, and assist in maintaining the navigability of rivers and harbors; and
  - (j) Otherwise to promote the health, safety, and general welfare of the people of this state.

Noble sentiments. DEP and the Districts are tasked with formulating Code, but they must base such rules on specific provisions of statute. Florida Statute 120 which governs administrative processes in Florida clearly directs that legislative Policy or Intent may not provide the basis for Code formulation. This legal water is a bit murky, no? Water is, by law, a resource which belongs to the people of this state, but one is left bedazzled by the legal processes at work. Such is the world of politics, agendas and legislative process.

Contention over the issue of water stems from conflict between developers and those concerned about the health of natural systems and the state's long term economic prosperity. The conflict is sharp and very expensive. It is so because the stakes are high.

On one hand there is the potential of great profit to be made by developers. On the other, there are citizens who expect state agencies to act in their behalf to protect natural resources, because the Constitution and Statute say so. Curiously, even some developers are growing concerned, since water supply is necessary if they are to gain approval for the myriad of development opportunities they perceive. In a land once overflowing with water, we now have water wars.

The issue is money and the salient point of contention is whether or not we allow plunder for the short term benefit of a few, or take a sustainable approach in the stewardship of our natural resources and by logical extension, ensure long term prosperity in Florida.

The questions before us are whether or not our grandfather's methods are suitable or sustainable, and to what extent we are willing to subsidize development throughout the state at the expense of our resources and future generations.

Our Water, Our Future  
Part 3: The Regulators

Water resources in Florida are managed primarily by DEP and by delegation of authority, the regional Water Districts. In general terms DEP oversees water quality while the Districts deal with water quantity issues. The two aspects are related of course and in fact the DEP and District do overlap in review and administration of their tasks.

Cynics sometimes refer to the DEP as “Don’t Expect Protection” and the water districts as “Weapons of Mass Development”. These titles are not deserved, but originate from frustrated citizens who reasonably expect protection and management in a positive sense. Codes which provide the narrow legal focus upon which the DEP and Districts base their regulation are formulated on basis of statutes emanating from the Florida Legislature. In the main, the DEP and Districts do their jobs in accordance with the law. Granted, they are not perfect and do on occasion make flawed decisions. However, if one is disposed to throw darts, do take the time to understand the processes and select the proper target.

These agencies develop rules through processes governed by FS 120 and those things seemingly necessary for common sense regulation may be pureed by legal buzz saws or other forces. While their rule making actions are promoted by Florida Statute, they are equally constrained by the same laws, over which neither agency has control. The statutes are promulgated by your legislature.

Within the DEP and Districts are many people dedicated to the view held by those concerned about sustainability and our present course. Regardless of sentiment, the Districts and DEP staff numbers are few in proportion to their task. As an example, the Department’s Bureau of Mine Reclamation, Mandatory Non-Phosphate Branch is staffed by 4-6 individuals and oversees over 500 mines in the state. For such reasons the broader state permitting or reclamation processes rely on experts contracted by various developers requiring permits for water use, or other activities affecting waters of the state. These experts and consultants are retained by the project developer, not the state. The experts build the application; the agencies ask questions and experts reply, with the crossing of “T’s” and dotting the odd letter “i” here and there. Such experts designed and built the reservoir used by The Tampa Bay Water Authority. You may recall that reservoir is filled with cracks, not water.

In these processes it is very important that one understands the staff personnel attending these applications are fully bound by pertinent Administrative Code in their determinations. They cannot arbitrarily deny a permit because they think it a good idea.

The directions these agencies follow are influenced by political winds; no surprise there. The various water District Governing Boards are filled by political appointments made by your governor and come mostly from the business world. Your tax dollars support the

Districts without elected representation. Whether electing these individuals is a preferable alternative is not clear. However, they determine the future of water in the state and set the tax rates which fund various projects and administrative expenses. There is no requirement they be well versed on the subject they regulate.

These agencies regulate by issuance of a permit. This means if they don't issue the permit, they don't get to regulate anything. If they don't issue the permit there is an ever present possibility of a law suit. The agencies are loathe to squander the taxpayer's dollar in such actions and rightly so. It is in such circumstances the use of such terms as "small" or "minor" become routine characterizations of impact, such as in context of lowering of the water table. While commonly incorporated and accepted, they are one basis for cumulative impacts which are sanctioned by the state.

As a result, our water dies the death of a thousand cuts.

*"Even with the combined effect of regulation and resource management programs, we have definitely experienced, and are in all likelihood still experiencing, cumulative degradation of natural resources in the Peace River watershed."* - Peace River Cumulative Impact Study of 2007: <sup>3</sup>

3 Peace River CIS, PBS&J for FDEP, 5-2

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## Our Water, Our Future

### Part 4: The Impacts of Development

A land once rich with natural water resources is no more. In a scant 150 years, the River of Grass is no longer a river; Lake Okeechobee is threatened and South Florida finds itself in an ongoing state of water budget deficits. That means we use or dispose of more water to meet demands of residential, agriculture and industrial users than is replaced and it augers poorly for our future. John Audubon and Marjory Stoneman Douglas would be astounded.

Many years ago a dike system was built around Lake Okeechobee in response to wholesale destruction resulting from a hurricane. Such actions would be consistent with current Code regarding flood control. This structure has provided for higher water levels in the past to support water supply and flood management practices. It has greatly

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supported agricultural interests in South Florida even as it has obstructed sheet flow into the Everglades.

State law mandates four areas of responsibility to the regulators. They are; Water Supply, Water Quality, Flood Protection and Natural Systems. In short, the state is obligated to provide for an ample supply of quality water, prevent flooding and protect or enhance natural systems. In approaching any of these four responsibilities the state often finds itself in direct conflict with the other three.

Today, because the dikes around Lake Okeechobee are in disrepair, the South Florida District drains water from the lake into the Gulf and Atlantic due to concerns about their integrity. The District is sacrificing supply for flood protection. Because the water is drained via canals and not the Everglades, we are sacrificing a vast and valuable wetlands system called the Everglades and by extension, Florida Bay. Because of that, water does not get cleaned by those natural systems and the opportunity for aquifer recharge is lost. This is but one of the many conundrums faced by the state. The State is, from all appearances, damned if they dam, and damned if they don't. Yes, there is ongoing litigation over these issues; so much so that it seems a growth industry.

Perhaps a less muddled approach with very clearly defined objectives would resolve these many conflicts. As citizens, we must decide if the long term benefit to natural systems and economic prosperity in this state is being addressed.

In 2007 the DEP published the "Peace River Cumulative Impact Study". It is a comprehensive work that details the combined impacts of mining, agriculture and municipal water use in the region of the Peace River Basin.<sup>4</sup>

Without placing blame on any particular user, the impacts are substantial. Large springs have ceased their flow. Base flow, or that contribution to streams and rivers by small springs and the aquifer, has likewise been reduced. In 1995 the U.S. EPA identified Charlotte Harbor as the only estuarine area in the country worthy of its own maintenance program due to pollution and disrupted flow scenarios caused by comprehensive degradation of source flows to the basin. In portions of Polk and Hardee Counties the upper elevation of the aquifer, or water table, has been lowered approximately 40 feet

After review of this 380+ page document you may be confused by the continued issuance of permits for mining in the Peace River Basin. One senior staff official of DEP, when commenting on a phosphate mine application stated there was no basis to refuse the application. He meant, "Legal basis". This is not to say there is no need for phosphate, for there is. The question which arises however is whether the people of this state should sacrifice their resources as subsidy to a regional industry that provides approximately 75% of the national demand, and 25% of world demand. There are other sources of

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<sup>4</sup> PBS&J, Peace River Cumulative Impact Study, 2007  
[http://www.dep.state.fl.us/water/mines/pr\\_cis.htm](http://www.dep.state.fl.us/water/mines/pr_cis.htm)

phosphate on planet Earth, yet there is no large scale suitable substitute and it might properly be considered a strategic resource.

Very recently there came a Federal Court decision which crystallized the long running battle between Florida, Alabama and Georgia over impacts to the Flint and Chattahoochee River systems. Barring intervention by Congress or higher courts it was a victory for Florida and Apalachicola Bay. In short, the city of Atlanta was found to be illegally drawing water from Lake Lanier. In his decision Judge Magnuson had this to say:

**``Too often, state, local and even national government actors do not consider the long-term consequences of their decisions. Local governments allow unchecked growth because it creates tax revenues, but these same governments do not sufficiently plan for the resources such unchecked growth will require.''**

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## Our Water Part 5: Our Future

The quality of our natural systems and waters of the state are our legacy for generations to come and water is our most vital resource.

Collectively we discard vast amounts of water every day, yet now find ourselves in the odd position of prolonged drought cycles, water shortages, failing infrastructure, declining water quality and natural systems. The forecast is continued growth in Florida. The question is whether or not we will maintain our water resources sufficiently to support that growth and maintain our natural systems.

A document released by the Florida Fish and Wildlife Conservation Commission last year referenced a study by A Thousand Friends of Florida which projects a state population of 36,000,000 by the year 2060. It is available online through MyFWC.Com and is entitled *Wildlife 2060: What's at Stake for Florida?* Much of this growth will be found along the I75 corridor north of Tampa, extending up to Gainesville and west to the coastal regions.

Where will the water come from? If you live in south Florida the water may come from here. Don't rely on Local Sources First legislation, as ultimately the courts will not bar water transfers if no other alternative is available. If all the Future Land Use Maps in all counties of Florida were to reach build-out, the estimated population of the state would be approximately 86 million people. We cannot come close to supporting such population burdens with current water use management practices.

Where is the water going to come from and at what cost? Dollars are what they are, but other costs present in the form of mutilation of natural systems that are bled dry, climate change and destruction of estuaries because of reduced fresh water flow. This destruction will have considerable and perpetual economic impact. A frightfully expensive impact if one wishes to compute what makes Florida attractive to visitors and new residents. Restoration is exorbitantly expensive as compared to preservation.

What is the cost of the destruction of the sport fishing industry in Florida? Hint: Billions. While many come to visit in the winter, they do so because of favorable weather and surrounding natural environments. "Natural Systems" is what the state calls them. Lakes, rivers, estuaries, the things that make Florida tick. They are the geese that lay the golden eggs and if we lose them, we have lost it all. Imagine Homosassa without the Springs. Turbid stagnant water does not make a tourist destination. Imagine Crystal River opaque, and then pause to consider what this will do to county tax roll values.

Today's path has been demonstrated in south Florida to be a failure, and like a cancer, that failure will spread until the whole system we call Florida chokes on its own dust and collapses. Is this what we want? Might it not serve the benefit of the state to recognize its obligations to the people and our future rather than continue contribution to systematic destruction of your water resources? It might serve us well to begin aggressively upgrading water quantity and quality before we dig a hole into oblivion.

One small first step is simple; balance the water budget. Supply must meet demand, drought notwithstanding. Step two might require collective recognition that we are all in this together; citizens, industry and agriculture alike. We should recognize the intricate relationship between natural systems, resources such as water and economic prosperity. Water should be considered as valuable as wetlands and processes be established that require much higher efficiencies of use. Both resources should be protected very aggressively. The depletion of these resources is not in our best interests and should no longer be tolerated.

Regulations might be considered that provide incentives to vertical development rather than sprawl, thus reducing demand for irrigation. Rewarding conservation in a financial sense may provide large scale incentive to facilitate this change. Perhaps it is time to examine the concept of water credits. It is reasonable to conclude there is no single silver bullet which will resolve the issues, but a healthy dose of pragmatic common sense might. Is there any understanding that we cannot live beyond our means? It works with money and it can work with water. It is time to raise the bar!

When the people of this state let their legislators know where their priorities lay, we will have taken a big step in solving some of these problems. At present however, we are writing resource checks future generations won't be able to cash.

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