

# Opinion



## The Real Costs of Reverse Osmosis

The following is a continuation of Al Green's reaction to what he describes as the "myths" of Longboat Key.

**To solve our irrigation problem, could we turn to reverse osmosis for a solution?**

Rereading this question a week later and after a considerable amount of research, I realize the question was badly worded. Yes, we could use R/O (reverse osmosis) as a solution because there is nothing from an engineering point of view that would preclude using this method of delivering good water to replace the salty well water. The real question is, "would you want to?" This is the real quandary and the one that I am going to try to answer within the confines of one column. Most of the information I am using is contained in a Town publication, "Irrigation Water Supply, Option Evaluation." I have supplemented it with some inquiries and a general estimating of inflation factors since the book was published in February 2002.

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Since I posed this question, Michael Welly, manager of the Longboat Key Club, has issued a statement claiming the Club will be installing a reverse osmosis system and was quoted in as saying he hopes that by this time next year they will be pumping water.

Since it has been three years since the Town issued its final report on "Irrigation Water Supply Options Evaluation," there has probably been some improvement in the efficiency of these smaller units. But when it comes to the regulations and permits, it is still the same old state and I am concerned that Mr. Welly hasn't taken that into account.

### Rate of Return

When the Town examined the production of these mobile trailer type units, they were told by a vendor that he hadn't been able to get more than a 33% return on his input. In other words, if he pumped a million gallons in, he got 333,000 gallons of useable water out. Mr. Welly is saying he expects 75% return, which would make for a much smaller machine. This is quite a turnaround and possibly not doable. For example, Venice is getting about 55% return and they are getting their water from wells that are much less salty than the gulf.

## GreenReport

By Al Green

Mr. Welly is saying he might be able to use the water that he is currently pumping from his wells. This decision is in the hands of SWIFTMD and no one can predict what they will do. However, the Town of Longboat Key was given to understand that further pumping from the ground would be unacceptable. The Club might have a chance at using their wells if they can effect the high efficiency that they promise, otherwise the amount of water they would need to draw for their purposes would force them into, like the Town, using the Gulf for their source. If the Club has to go to the deep water of the Gulf for its supply, have they figured in that additional cost?



### Disposal Dilemma

The matter of disposal is also a question mark. Welly has said they will pump it back into the Gulf. The Town in their plan has allocated about \$2.5 million dollars to construct a deep well to dispose of the residue. They did this because they felt the possibility of getting a permit from the Department of Environment Protection to put such a quantity of salt back into the Gulf was close to nil. The DEP would require studies that would demonstrate that adding additional salt to the system would have no affect on the wildlife. This is from an organization that is reluctant to try to kill Red Tide because they cannot determine the consequences. However, it might be possible for the Club to prevail and get a permit because the amount of residue is so much less than a Town-wide plant would produce. Only time (and a lot of time) will tell.

There is no way we can place the Town's approach to installation of an R/O system side by side with the Longboat Key Club's plan and make a comparison. I have

tried to do this but there are just too many differences to make any decision plausible. Whether the Club officials are blowing smoke or can really pull this off remains to be seen. Trying to guess the decisions of the DEP is beyond any rational methodology. When you examine their decisions you could think we were back in the old days in Chicago when your permit only depended upon to whom you were giving the job. There is no consistency. The golf club might get lucky and the folks in Tallahassee might be golfers and decide the future of a golf club was that important. Whatever is decided, it will not change the parameters of the Town-wide solution.

### The Real Question

Consequently, we come back to the question before the House. That is: whether we should bring in reclaimed water, do nothing, or plan on eventually installing a permanent, dependable R/O plant that will deliver the amount of irrigation quality water we need for the next 50 years?

If we should decide to utilize reclaimed water for our long-term solution, we must act fairly soon. The cost of the system would be about \$1.2 million dollars per year. I arrived at this figure by setting the capital cost at \$40 million dollars, which would call for \$2.16 million to carry the bond. I am assuming the Commission would follow the lead of the 2003 Commission when they decided to follow the advice of the Water Committee and regard the water problem as a Town-wide problem and therefore a Town-wide responsibility. If we sold the 2.5 million gallons of water at \$2 a thousand, we would recapture about \$900,000 leaving us with a net annual cost of the aforementioned \$1.2 million. Because general obligation bonds are deductible from federal income tax, the cost would be lowered about another 30% for the average resident. These figures are not set in stone but I have used these to demonstrate the overall effect of bringing in the reclaimed water.

The only reason for the haste is that reclaimed water is a commodity and this commodity is getting more valuable every day. Our window of opportunity to get the quantity we require will close fairly soon so if we want to use this method we must begin our deliberations ASAP.

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## The Best of Times; The Worst of Times

Richard L. Hershatter  
Contributing Columnist

**"It was the best of times,  
It was the worst of times,  
It was the age of wisdom,  
It was the age of foolishness."**  
(Charles Dickens)

It is the best of times on Longboat Key.

As this is being written, it is the best of times because the seven member commission governing our island is in recess for the summer. As the legendary Judge Gideon Tucker once postulated, the life, liberty and property of our citizens is safe for the moment.

Ah, but is it true?

It is the worst of times on Longboat Key.

As a poet might say, "let us count the ways."

Like the biblical plagues of Egypt, our paradise of an island has been visited by a succession of unfortunate events that would leave one to wonder whether Longboaters have incurred the wrath of a vengeful deity.

Perhaps most unsettling has been the persistence of the poisonous algal bloom known as "red tide."

In the past, it has not been unusual for the winds and currents to carry its effects to the shore several times during the winter season, leaving tons of rotting dead fish and turning the air itself into a cough-inducing vapor for human lungs.

The winter of 2004-2005, however, suffered lengthy visitations that have persisted into the summer. In spite of the best efforts of Public Works Director Juan Florensa and his crews, decaying fish permeated the roots of mangroves on the bay side of the island, drawing hordes of flies in the steamy summer heat.

Attracted by the flies and rotting fish flesh, countless birds have gorged on both and then congregated in trees, leaving odorous droppings on the ground beneath. The

scene mimics the worst plots of a Hitchcock movie, and long-time residents admit to never having seen anything like it.

In addition to the infestation of fish carcasses, flies and birds, Longboaters have had to contend with the prognostications of meteorologists, who promised a hurricane season equal to or worse than the destructive events of last year.

So far, the island has escaped a direct hit, but the sideswiping waves of Hurricane Dennis managed to wash away significant amounts of sand from our beaches, without carrying off the persistent red tides of summer.

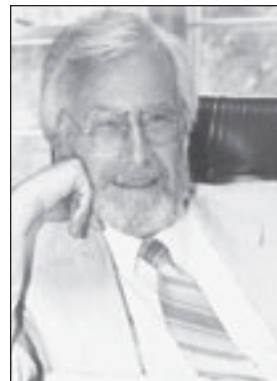
Nor can we relax at the bullet having missed us, because the experts postulate a 70 per cent chance of a significant hurricane striking our area before the season ends next October.

As if the onslaughts of Mother Nature were not enough, the island has also been subjected to the negative activity of human beings.

For the first time in memory, health officials have been forced to close beaches because of high counts of fecal coliform and enterococci bacteria in the water. Although heavy rains have been cited as the immediate cause, the run-off of excess bird droppings and canine waste uncollected by human owners is suspected.

Adding insult to injury, Federal officials have placed a temporary ban on recreational fishing for red grouper in order to minimize potential overkill, which protects the species from avid anglers but does nothing about their vulnerability to red tide.

And then there is the problem of our imperfect program of beach renourishment. The imbalance of carbon-



ate impregnated sand has been corrected, but trying to add sand to over ten miles of beaches during the height of hurricane season is reminiscent of the old New Yorker cartoon showing a gas station attendant trying to fill the tank of a sleek Cadillac and admonishing the driver: "Please turn off the engine - you're gaining on me."

We don't mean to sound like a "nattering nabob of negativism," but unless things start to change significantly, Longboat Key will no longer be an idyllic island Paradise.

If one cannot swim, or fish, or use the beaches without coughing or becoming nauseous from noxious odors, real estate values will plummet and visitors and residents will seek greener pastures elsewhere.

The island could then well revert to its World War II status as an air force bombing range.

What is causing this succession of pestilences?

Is it because the orbit of the planet Mars will shortly bring it closer to earth than at any time in recorded history?

Is it because we have been unkind to Bob Dawson?

No one knows, but in ancient times we would have all been advised to kill a goat and leave a smear of its blood on our front doors.

We don't recommend that remedy - it would only draw more flies.

There is an ebb and flow to such things, and hopefully, the tide will soon turn. In the words of Charles Dickens:

**"It was the season of Light,  
It was the season of Darkness,  
It was the spring of hope,  
It was the winter of despair,  
We have everything before us..."**

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