



# IWA PIPELINE



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3651 Sanibel-Captiva Road, Sanibel, FL 33957 • <http://www.islandwater.com>

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## IT'S "THAT" TIME AGAIN

This year, IWA's Annual Meeting will be held on Monday, April 11, 2005 at 10 a.m. in our offices at 3651 Sanibel-Captiva Road. Those wishing to participate in person and/or cast ballots at the meeting must register at the tellers' table between the hours of 9:00 a.m. and 10:00 a.m. at the meeting location. In the event you will not be in attendance, please sign, date, and mail your proxy to the Head Teller. It must be received by Friday, April 8, 2005. Further materials relating to this meeting are enclosed with this Newsletter. **PLEASE** vote your proxy and return it to us as soon as possible.

The Nominating Committee met on January 25, 2005 to select candidates for the three vacancies on the Board of Directors this year. David Demaree, currently Board Vice President, was nominated for his third and final two-year term. Timothy Gardner was nominated to serve his first term, having previously served on the Board from 1993 to 1999. William Fenniman was also nominated to serve his first term on the Board. Brief resumes for all three of the nominees are enclosed on a separate sheet.

As has been the case at the last few Annual Meetings, we'll be happy to give everyone a tour of our facilities after the meeting is over. Of particular interest this year may be the six large generators we used after hurricane Charley during our efforts to restore water service, as discussed elsewhere in this newsletter. We will also have the customary coffee and doughnuts available before the meeting begins.

So mark your calendars for April 11th and plan to attend. We'd like to see **YOU** at our Annual Meeting this year! All of our Members own a part of IWA, and this is your chance to participate in its operation and to ask whatever questions you may have.

## A RARE OPPORTUNITY



As reported in previous editions of this newsletter, IWA has had an extensive ongoing program for the last few years to encourage our Members to conserve water. As part of that program, we offered our Members who used high amounts of water a free "audit" to help them understand where they were using all the water and how they might be able to reduce their consumption. We have recently become aware of Members who participated in this program, who are an interesting case study.

These Members took advantage of the IWA water conservation audit before hurricane Charley and then lost most of their vegetation in the storm. This presented a real opportunity in terms of re-planting. It was now possible to come up with a plan to use plants that are salt and drought tolerant, as well as ones that would require little ongoing maintenance.

The first stop was the Native Plant Nursery at the Sanibel-Captiva Conservation Foundation (SCCF), where lots of information was available from the very knowledgeable and helpful staff. They had done the research and had lists of plants that would work with the new vegetation concept, and they could even provide most of the plants.

However, they did not have the staff to do a large scale re-planting, so the search began for the correct person to work out the detailed design and to do the actual planting.

The IWA Members were very clear in what they wanted: native vegetation that would provide good habitat for birds and butterflies, while conserving water, being salt and drought tolerant and requiring low ongoing maintenance. Most of the horticultural people they talked with wanted to over-plant with non-native plants, which would require the use of an extensive irrigation system and constant ongoing maintenance. Finally, they located a group in Cape Coral who was very interested in their concept and even willing to purchase the plants from SCCF. The plan began to take shape. The Members were extremely pleased to have found someone who understood what they wanted and was willing to work with them to implement their plan.

Once the site has been cleaned up, the native vegetation will go in with a temporary above-ground irrigation system, which will be totally removed once the plants are established. Thanks to the original information provided to these Members by IWA, they realized that Charley provided them with a rare opportunity to replant their landscape with more appropriate plants, while at the same time reducing their water bill. If you would like to discuss this concept with us, just give our Engineering Manager, Rich Calabrese, a call on (239) 472-2113 (extension 129).

How's that for looking on the bright side?!!

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## LOCATION, LOCATION, LOCATION

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The phrase "Location, Location, Location" is most often used to describe the most important factor in determining the value of real estate. However, after hurricane Charley, we realized that it had another meaning for us at IWA.

As the hurricane raged outside the Holiday Inn

in Fort Myers, where some employees rode out the storm, our biggest fear was that the promised 18 foot storm surge had actually hit the islands. Our concern was not only that the RO plant and our offices would be under 8 feet of water, but also that our extensive distribution system of over 100 miles of piping, 1,150 underground valves and 5,000 meters would be buried under several feet of sand and debris when we returned to the islands, with few remaining landmarks to help us relocate them and dig them out.

Of course, as it turned-out, the predicted storm surge never occurred, and salt water flooding was minimal. Although much of our distribution system was buried under mountains of vegetative debris, at least we could still see familiar landmarks, and removing piles of vegetation was much easier than bulldozing several feet of sand. We had been fortunate in that we experienced the wind of a category 4 hurricane, but not the normally anticipated storm surge and flooding.

This experience with Charley reminded us of a project that we had on the "back burner" for the last several years. We had been planning to obtain Global Positioning System (GPS) coordinates for all of our underground facilities, so that we could precisely relocate them regardless of the condition of the islands, with potential hurricanes being the main reason for doing so. We actually had just purchased the GPS equipment in late 2003 and were beginning to develop a project which would take several months to obtain all the coordinates. After Charley, we suddenly realized that our concerns were real and that we should proceed with the project as soon as possible, hopefully completing it by the beginning of the 2005 hurricane season.

Engineering Manager, Rich Calabrese, assigned the project to our Engineering Aide, Ron Leavitt, and the work began. Ron is being assisted by a couple other IWA employees and we hope to meet our schedule deadline this summer. This is just another aspect of hurricane preparations, made possible this time by technology. We hope we are wasting our time and we never again get hit by a hurricane and need this information, but ...

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## A POWERFUL SUBJECT

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You may have noticed that after hurricane Charley, most IWA members had water service restored long before they had electrical service. To a large extent, that was a result of the fact that electrical lines are located above ground where the wind can damage them, while many of our water

facilities are located underground, where the wind can't directly damage them ... although uprooted trees certainly can. As a result, the electrical system on our islands was much more heavily damaged than the water system, which was obviously a good thing for IWA and not so good for our electricity supplier, LCEC.

Notwithstanding the above comparison, IWA could not recommission its water system without electric power. Since the power was off at all our facilities just like was the case at all our Members' houses, we could neither produce more water nor pump it to our customers without some alternative sources of power. At IWA, those alternatives take two forms.

1. We have two propane-fueled fixed generators to run portions of our office buildings, one very large fixed diesel-fueled generator to run the RO Plant, and three portable diesel-fueled generators to run our remote water wells.
2. We also have 8 large water pumps that are directly driven by propane-fueled internal combustion engines.

By using all these alternative power sources, the only problem with electric power that we encountered after Charley was that our main office was only about 33% powered by its fixed propane-fueled generator (to save on the generator cost). Since we lived in our offices for over a week after the storm, the lack of AC, refrigerators, clothes washer/dryer, etc. became a major problem quite quickly. We were able to relocate one of the portable diesel-fueled generators to run the whole office complex, and conditions became much more livable. Since the storm, we have invested in another portable generator, as a spare for the other three running the wells, and if not needed there, then to run our offices, if/when we get to have this much fun again some time in the future. We purchased this additional generator used, saving over 50% off the price of a new one.

We purchased all these generators and propane-driven pumps over the last couple of decades. At the time, and for years thereafter, we always had a nagging concern that we would never need them, although logic told us that would not be the case. It was just a matter of when, not if. After hurricane Charley, we were really glad we had all these facilities, as we suspect were our Members, who were able to take a shower much quicker than would have otherwise been the case. It is likely that everyone would now agree that it was money well spent!! What's that old saying? ... "Better safe than sorry," or maybe in this case, "Better water than no water!"

## AN RO MEMBRANE PRIMER



As most IWA Members are probably already aware, at IWA, we produce our water using a desalination process called Reverse Osmosis (RO). In the RO process, the raw brackish feedwater is pressurized into membrane units. Pure water passes through the membrane, leaving behind most of the impurities, which are disposed of in the brine waste stream. For every 10 gallons of feedwater we process, we produce 8 gallons of product (drinking) water and two gallons of brine waste.

The membranes in our RO Plant are 8 inches in diameter by 40 inches long. We have 6 RO "trains", each comprised of 20 vessels, each holding 6 membranes. Therefore, we have a total of 720 membranes in our plant, each costing around \$500, for a total membrane investment of around \$360,000. Although the membranes (constructed of semi-permeable "plastic") are durable, lasting over 5 years, they are subject to "fouling" from various constituents of the feedwater.

When the membranes foul, the required feed pressure increases, increasing electric power consumption and hence the cost of producing our water, which is not a good thing. Calcium salts and organic matter in the feedwater are the two most common sources of fouling that can occur. Fortunately, most fouling is reversible to a large extent. The cleaning process that IWA uses consists of first passing an acidic solution through the membranes to dissolve the calcium deposits. The membranes are then rinsed with clean water and a caustic solution is applied to remove any organic matter. Finally, the membranes are rinsed again. These cleanings are performed every four to six months, helping us to continue to provide quality drinking water at a reasonable cost to all of our Members.

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## SHE'S A REAL "10" IN OUR BOOK!!

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Lizzie, our office kitty, is well known to the readers of this newsletter. We often get Members who call in, write us a note or stop in to check on her. In honor of her upcoming 6th birthday (on 5/10), we have developed the following list:

### The Top 10 Advantages of Having Lizzie as our Office Kitty

10. Provides warm, loving companionship for IWA employees.
9. Great public relations tool with our Members.
8. Keeps Board President's chair in the Boardroom warm (and hair-covered).
7. Supplemental income from custom, cat-hair-stuffed pillow sales.
6. Reduced pest control costs (when/if she is awake).
5. Burglar deterrence (when/if she is awake).
4. Soothing background noise (soft snoring) for

IWA office employees.

3. Reduced garbage disposal costs.
2. Effective weight control strategy for IWA employees, Rich and Karen, who feed her half of their lunches every day.

### And the number 1 advantage of having Lizzie as our office kitty is:

1. She's always good for an article in this newsletter, when the author can't think of anything else to write about!!

Actually, employees submitted many more than 10 suggestions for inclusion in the above list. However, some of them were rejected by the author of this newsletter, like for example, "Better than an office palm rat." Lizzie would be really upset if she knew that she was being compared (even if favorably) to a palm rat!! We'll make sure she never sees this newsletter edition.

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## GET WITH THE PROGRAM!!

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Tired of mailing us your payment every month? Join many of your fellow IWA Members and enroll in our direct debit program. We will automatically debit your bank account each month, after you have had a chance to review your bill. You will save a stamp, envelope and aggravation. IWA will save the cost of opening your payment and inputting it into our computer, thereby keeping our costs and your water rates as low as possible. Call our Membership Coordinator, Karen, on (239) 472-2113 (extension 111) to enroll. She will be happy to discuss the program in more detail with you and to answer whatever questions you may have. To us, it seems like a real win-win proposition!

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