



IWA PIPELINE



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CCR TO BE ISSUED...

The 2008 edition of IWA's Consumer Confidence Report (CCR) is being developed and will be issued in early July. This EPA-required annual report covers our water quality for 2007. IWA's water meets and exceeds all water quality standards, as has always been the case in the past. Please read over this information when it arrives, and if you have any further water quality-related questions, just give our Production Manager, Phil Noe, a call on (239) 472-2113 (extension 122).

2008 ANNUAL MEETING...

On April 14, 2008 the Annual Meeting of The Island Water Association, Inc. (IWA) was held in the Association's offices, located at 3651 Sanibel Captiva Road.

Timothy Gardner presented his President's Report regarding the state of the Company. He first commented on the adverse effects of rapidly rising energy prices on IWA's financial situation, pointing out that energy-related costs totaled over \$500,000 in 2007. Mr. Gardner then reviewed the changes he had seen during his tenure on the Board, noting that IWA had remained remarkably stable. He closed his presentation by reviewing what he sees as the future challenges that IWA will face, the most significant of which will be the need to train replacements for IWA's maturing work force. Mr. Gardner also discussed the adverse effect on IWA's revenue resulting from the SFWMD water restrictions.

Next, Vice President/Treasurer, William Fenniman, presented the Treasurer's report. He indicated that IWA remains a financially sound company. Mr. Fenniman went on to say that IWA's total revenue in 2007 was up slightly from that in 2006, to \$6.5 million, while operating costs increased to \$4.7 million, primarily as a result of in-

creased costs for insurance and electricity plus general inflation.

General Manager, William "Rusty" Isler, then presented his annual report on operations and accomplishments in 2007. He said that annual water production in 2007 increased by around 40 million gallons to 1.32 billion gallons. Mr. Isler pointed out that IWA had record water production in 2007 mainly due to the lowest recorded rainfall in 20 years. The average rainfall for Sanibel is 44 inches per year and in 2007 we only received 28. Mr. Isler then talked about the water restrictions that took effect on January 15, 2008. The one-day-a-week water restrictions were replaced by two-day-a-week water restrictions on April 18, 2008.



IWA 2008 Board of Directors

*William Carr - Robert Wigley-Timothy Gardner-
Robert Lindman- Bill Fenniman*

Mr. Isler also pointed out that in two months of one-day-a-week water restrictions, IWA's revenues dropped by 18%.

Mr. Isler discussed IWA's plans for 2008, which include updating IWA's Master Plan and performing an in-depth rate review. Mr. Isler talked about many aspects of the company that will be scrutinized during the IWA Master Plan review. One item

of interest will be the R.O. plant capacity and determining if an increase of water production will be required in the future. Mr. Isler discussed the Captiva Main replacement which was IWA's biggest capital project in 2007. IWA replaced the badly corroded 25-year-old ductile iron Captiva main with a new 16" and 12" PVC main. The project took just over six months and IWA's portion of the project is completed. Paving of the affected roads on Captiva is underway by the Lee County Department of Transportation.

Mr. Isler reflected on 2007 by remembering former IWA employees. IWA suffered the death of two employees, Rich Calabrese and Jim Klein. IWA also had three long time employees, Roger Blind, Tom Cali, and Jon Gasaway, retire during 2007. Next, Mr. Isler introduced IWA's Department Managers and commented on the professionalism and dedication of all IWA's employees. Rusty then introduced the IWA Board of Directors and complimented them on their service to IWA. Mr. Isler invited Members to join IWA's employees for a tour of the facilities after the meeting was concluded.

STORM SEASON PREPARATION...

By the time this newsletter is issued, it will be hurricane season 2008. We have updated our hurricane plan, restocked our food supply and replenished our emergency reserves, as we do every year. We think we are about as ready as we can



be, but we certainly hope that all our preparations are unnecessary this year. We like to encourage our members to turn off their house valves when they leave the Islands for storms or extended periods of time. Water breaks and leaks outside can be water wasteful and expensive. Water leaks inside an unoccupied home can be disastrous.

Failed dishwasher, washing machine, and ice maker hoses can all lead to a very bad day inside an unoccupied home.

WELL? WHAT ABOUT THOSE WELLS..

Contrary to what some members and tourists believe, our drinking water on the Islands is not made from sea water. Although it is technically possible to do so with Reverse Osmosis (RO) treatment like ours, it would more than double our cost of production. And getting the permits and easements to treat sea water would not be easy, if even possible, given the many regulatory agencies that would be involved.

Instead, IWA uses deep wells as the source of our water. We are currently using 14 such wells, scattered up and down Sanibel-Captiva Road from the RO Plant (some inside the infamous wooden fences which were recently freshened up with a new coat of wood stain).



These wells produce "brackish" water, which has a salt content of around 1/10th that of sea water. This water is great for RO treatment, but it would kill most vegetation if used for irrigation. The wells are Artesian, meaning that water flows from them without pumping, although not at nearly the rates we need. The water enters the ground in northern Florida, near the Suwannee River ... hence the name of the geological layer which carries the water to the Islands, the Suwannee aquifer. The water is a constant 82°F, Winter and Summer, which, coupled with our warm weather, leads to the fact that our "cold" water faucets give us water that is very warm by northern standards and which tastes better after being chilled in the refrigerator.

Drilling a well is quite a process, and it starts with the very difficult step of finding a plot of land in a suitable location. And even after a suitable site is identified, there are no guarantees that we will find the quality and quantity of water that we need!

After the site is identified, the next step involves actually making the hole in the ground, referred to as "drilling" the well. A large, truck-mounted drill rig parks over the designated well location and begins drilling a hole in the ground, starting with a 22" diameter drill bit! After the hole is around 50 feet deep, the drill bit is retracted and a 16" steel

pipe called the surface casing is set into the hole. This keeps this part of the hole, which is basically in layers of sand, from collapsing inward as the well is drilled deeper. The drill bit is then changed to one "only" 16" in diameter and drilling resumes.

During the drilling process, the inside hollow core of the drill bit is used to extract a sample of water from the tip of the drill bit, at the deepest point of the hole. This is accomplished by a process, known as "reverse air," that uses compressed air to lift the water to the surface. By sampling this water continuously, we can tell when the water quality and quantity are appropriate for our needs, and at that point, we stop drilling, normally at a depth of around 800 feet. If the water is not of acceptable quality/quantity, the entire hole is filled with concrete and we have to drill another one! This sampling process is an expensive one, but it is necessary to maximize the chances of success for our drilling efforts. Lack of this process is one of the reasons homeowners are frequently disappointed in the private wells they drill for irrigation purposes.

When the well reaches the desired depth, the drill bit is again extracted and, if the quality and quantity of water are acceptable, a 10" PVC (plastic) pipe, known as the casing, is set into the hole to keep-out the less desirable water at shallower depths. The length of the casing is determined by the continuous sampling process described above, and it normally extends 600 to 700 feet down the hole, leaving about 100 to 150 feet of "open hole" from which the water is withdrawn. Failure to accurately determine the casing length is another common cause for homeowner disappointment with private wells.

The casing is then "grouted" in place by pumping a thin concrete mixture between the casing and the outside of the hole. This isolates the various layers of the geological structure penetrated during the drilling process and prevents contamination of one layer by another one. The pressure at the bottom of the hole (under 800 feet of water!) is nearly 350 pounds per square inch (psi), or over five times the pressure in our faucets! This completes construction of the well itself.

Next we have to install a pump in the well. The pumps we use are known as submersible, for the logical reason that they are submerged below water level down the well casing. A motor of 40 to 60 horsepower is also attached and submerged with the pump and an electrical cable is run down the hole to provide power for the motor. The pump and motor are hung on the end of a stainless steel 5 inch diameter "drop pipe" which is 160 feet long. Therefore, the pump/motor are 160 feet under water, where the pressure is nearly 70 psi. Needless to say, the electrical components have to be very water-tight!

The last step is to install all the above ground electrical controls for remote operation of the wells from the RO Plant and the pipes (10" to 14") and valves to carry it to the Plant. When the water arrives at the Plant, it still has a pressure of around 20 psi and it is re-pumped to over 180 psi for treatment.

MEET THE IWA MANAGERS...



From left to right: Don DuBrasky, John Leiter, Shelly Storves, Phil Noe, Joe Scofield

The Island Water Association is extremely fortunate to have a very experienced group of managers with an average tenure at IWA of over 18 years. It is hard to be humble working with this group of managers. Together this team can run, operate, build, maintain, or repair any type of equipment or facility. See their profiles on the next page.

MEET THE IWA MANAGERS

Don DuBrasky, Information Services Manager

IWA Tenure 13 years

Don oversees our administrative computer systems and ensures the administrative component of IWA runs in an efficient and professional manner. Don has a degree in Computer Information Systems and is a Licensed Master Electrician.

John Leiter, Industrial Technology Manager

IWA Tenure 26 years

John oversees the maintenance of just about every type of equipment that IWA has. John is a Licensed Master Electrician and is just as comfortable changing out a 150hp 440volt motor as he is programming the R.O. Plant computer control system.

Shelly Storves, Engineering Manager

IWA Tenure 13 years

Shelly oversees our new construction projects both in the distribution piping system and in the water treatment plant with it's multitude of various types of equipment. Shelly is a Licensed Professional Civil Engineer and is a Licensed Building Contractor.

Phil Noe, Production Manager

IWA Tenure 21 years

Phil oversees our R.O. Plant and operators. Phil ensures our water treatment facilities operate as they should in a safe and efficient manner. Water quality, production and safety are all at the very top of Phil's list of responsibilities. Phil holds a Class A Plant Operator's License.

Joe Scofield, Distribution Manager

IWA Tenure 18 years

Joe oversees the distribution piping system and our field crews. Joe deals with our valves, backflow program, meters, line breaks, new installations and just about anything within our distribution system. Joe holds a Class A Water Plant Operator's License and a Class A Distribution Technician License.



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