



IWA PIPELINE



SPRING 1988

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VOLUME 11, ISSUE 2

Well plugging — an update

Since 1983 IWA has been cooperating with the South Florida Water Management District and the City of Sanibel in trying to locate all the old deep wells on the islands. The reasons for this search are twofold.

These wells can provide valuable information about the state of the aquifers that we depend on for our water. Some of these deep wells allow us to actually examine the aquifers and the strata surrounding them at a specific location. With this information we can construct a hydrogeologic profile of the aquifers and determine how the water from these aquifers is changing.

Another reason we want to locate these wells is to determine whether they present any danger to the aquifers and if so to plug them. The danger involved is the possibility of a faulty well casing dumping salt water from higher strata into the deeper aquifer.

Because of our treatment plants such salt contamination is not a danger to health, but it is a real danger to our water supply. The water we now take from the ground under Sanibel has only about one-tenth the salt that sea water has. Salt intrusion into the aquifers can significantly cut into our precious store of this brackish well water.

It's a simple math problem. Currently IWA gets about 4/5 gallon of potable water out of every gallon we pump out of the aquifers. The other 1/5 is needed to flush away the salt removed by reverse osmosis. Add more salt to the aquifer and IWA will have to throw away even more of the water. A vicious circle would then further compound the problem: because of the greater wastage we would have to pump more water out of the aquifers, and this



would in turn cause even more salt intrusion and so on.

So, deep wells that are leaking salt water into our aquifers are a real worry to all of us. IWA is not concerned with wells that are in good condition. As a matter of fact we continue to help people repair deep wells that are starting to have problems. And it should be said that IWA is not interested, as some have suggested, in plugging anybody's well in order to add another hookup to our system. As a non-profit utility our concern is to keep delivering our product faithfully to our membership — not to sell more of it.

Now, more than ever, it is important for the contaminated wells to be plugged. In the past five years IWA and its partners have plugged 27 wells and this program has shown surprising and most welcome results. It appears that these wells were indeed causing significant increases in the salinity of our aquifers and that plugging the wells has added years of productivity to our wells and kept salinity levels of our aquifers far below those predicted 10 years ago.

Sharp will fill Kilmer's term

Thomas A. Sharp has been appointed to the IWA Board of Directors to fill the term of Everett Kilmer, who has moved off the island.

Mr. Sharp has been a year-round resident of Sanibel since September 1980. He retired from Sperry Corporation after 38 years of continuous service in various divisions of the company. During his career he held several management positions in research and development. He holds several patents and has been published in scientific literature.

Mr. Sharp received his B.S. in chemical engineering from the University of North Carolina. His memberships include Phi Beta Kappa, Tau Beta Pi, American Chemical Society, Institute of Chemical Engineers and American Electroplaters Society.

On Sanibel he is a member of SCCF, Community Housing and Resources, Audubon, COTI, Sanibel's Vegetation Committee and Wastewater Advisory Committee, and also the Ding Darling Society and Advisory Committee.

He lives with his wife, Alice, on Punta Caloosa Court.

Mr. Sharp enjoys gardening and fishing and is an expert cabinet maker.

He is a welcome addition to our Board.

Sodium in IWA water

The sodium content of IWA's water is not as much as you might expect considering that all our supply comes from wells drilled in an island surrounded by salt water.

The amount of sodium in our treated water varies month by month due to the proportion of water treated by reverse osmosis versus electro dialysis. In 1987 there was an average of 65 milligrams of sodium per liter (mg/l) of IWA water. But our highest month, April, showed 113 mg/l, while the January figure was only 29. The State of Florida's maximum limit for sodium in drinking water is 160 mg/l of water.

What does this mean to you? Well, if you drank the recommended eight glasses of water a day in 1987 you consumed about a half gallon of water containing from 55 to 214 milligrams of sodium.

For comparison the average American consumes between about 2,400 and 7,200 milligrams of sodium each day (according to information provided by the American Heart Association). You can see that, even at worst, the sodium in a half gallon of IWA water would represent a small proportion of the normal daily intake.

Of course there are special health situations calling for restricted sodium intake levels. According to the Lee Memorial Hospital Dietitian the average low sodium diet they serve has a maximum of 2,000 milligrams per day. They do caution that the proper sodium level is an individual question and that people should seek their doctor's advice on their sodium intake. We agree with their advice.

Hermes and Brooks are re-elected

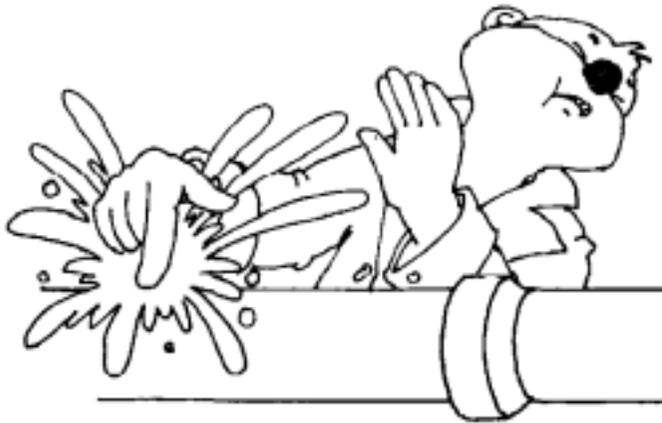
At the IWA Annual Meeting Jim Hermes and Cloyce Brooks were elected to new two-year terms on the Board of Directors. Mr. Hermes has been on the Board since 1985. Brooks has served since 1983.

Captiva main breaks again

On the morning of Wednesday, March 23 the water main crossing the Blind Pass Bridge burst leaving Captiva with no water pressure for about an hour. The cause of the pipe's rupturing was probably the vibration caused by heavy traffic over the bridge according to IWA engineers.

It is the second time in six months that Captiva has been cut off from IWA supply. The first time was during the October storm that took out the main along with a section of Captiva Road.

Captiva will face two more outages in the near future when the Blind Pass Bridge is rebuilt...one when the temporary water main is installed; the second when the permanent main is installed.



All of this stresses the importance of IWA's plan to install a new one million gallon storage tank on the South Seas Plantation property. Lee County officials have expressed willingness to help pay some of the cost with Causeway Surplus Funds after beach renourishment needs are met. Design and permitting are currently progressing.

IWA hooks up 10,000th unit

Mr. and Mrs. John White of Lawrenceville, New Jersey have a place in IWA's short but rapidly moving history. Their new single family unit in the Castaways Subdivision was our 10,000th, based on total individual residential and non-residential units.

In 1966 IWA served 600 units. Since then we have averaged 400 new units per year.

Required EPA notice concerning lead

IWA's water has always met the standards set for drinking water safety. We must, however, comply with a recent governmental regulation covering all water producers. This new rule says we must warn you about the dangers of lead in drinking water, even though our water contains so little lead that its concentration can't be measured by sophisticated atomic absorption laboratory equipment.

We've received help in drafting this notice from the American Water Works

Association and the Florida Rural Water Association.

Lead accumulates in the body from three potential sources. The major source is food followed by air and drinking water.

Lead has been a common component of the materials used in the construction of water distribution systems and household plumbing throughout the centuries. While water supply systems do not still use lead joints and services, some older parts of existing systems may contain lead. IWA's distribution system does not contain lead.

Lead is also commonly found in the soldered joints and the plumbing fixtures of older as well as modern homes and buildings. All water, even that which has been treated to reduce corrosiveness, can cause traces of lead to dissolve in the drinking water.

The portion in quotation marks is required verbatim by the U.S. Environmental Protection Agency.

"The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that lead is a health concern at certain levels of exposure. There is currently a standard of 0.050 parts per million (ppm). Based on new health information, EPA is likely to lower this standard significantly.

"Part of the purpose of this notice is to inform you of the potential adverse health effects of lead. This is being done even though your water may not be in violation of the current standard. (Note: IWA's water is in compliance with the current standard.)

"EPA and others are concerned about lead in drinking water. Too much lead in the human body can cause serious damage to the brain, kidneys, nervous system and red blood cells. The greatest risk, even with short-term exposure, is to young children and pregnant women.

"Lead levels in your drinking water are likely to be highest:

- if your home or water system has lead pipes;

(CONTINUED ON BACK PAGE)

- if your home has copper pipes with lead solder; and
- if your home is less than five years old;
- if you have soft or acidic water; or
- if water sits in the pipes for several hours."

The best way to tell if materials containing lead have been used in your home is to have the water tested. You may do this by contacting one of the laboratories listed in the Fort Myers telephone book yellow pages under the heading Laboratories - Testing.

IWA has regular tests of its water for corrosivity performed by a certified laboratory. IWA provides pH control and adds a corrosion inhibitor to reduce lead

leaching from solder and plumbing fittings.

The American Water Works Association recommends that the cold water tap run for a sufficient amount of time to clear standing water from the line prior to using it for consumption (approximately two to three minutes). This should be done in the morning or after the system has not been in use for several hours.

Since hot water dissolves lead more quickly than cold water, use water from the cold water tap for drinking and cooking purposes, and especially for making baby formula.

When making any repairs or additions to the drinking water lines always insist that the "lead-free" solder be used.

**THE ISLAND WATER ASSOCIATION, INC.
COMPARISON OF 1988 BUDGET TO ACTUAL RECEIPTS AND DISBURSEMENTS**

	<u>1988 Budget</u>	<u>THREE MONTHS OF Actual Receipts</u>
<u>RECEIPTS</u>		
Water Sales	\$812,499	\$902,747
Interest	12,501	19,224
Other Receipts	2,499	8,142
Connection Fees	100,000	51,547
<u>TOTAL RECEIPTS</u>	\$927,499	\$979,260
Carryover (1/4)	193,690	193,690
<u>TOTAL FUNDS</u>	\$1,121,189	\$1,172,950
	<u>1988 Budget</u>	<u>THREE MONTHS OF Actual Disbursements</u>
<u>DISBURSEMENTS</u>		
Wages and Benefits	\$252,019	\$245,166
Professional Fees	19,803	22,194
Electricity	157,718	138,261
Telephone	4,125	2,839
O & M Service & Supply	111,600	125,009
Motor Fuels	3,426	2,653
Insurance	26,298	16,117
Fuel Charges	2,751	2,996
Travel, Training, Conferences	5,331	3,101
Debt Repayments (Farmers Home Admin.)	75,117	75,117
Capital Expenditures	376,877	232,791
Contingency Fund	28,000	0
<u>TOTAL DISBURSEMENTS</u>	\$1,041,768	\$683,234
<u>EXCESS OF FUNDS OVER DISBURSEMENTS FOR FIRST QUARTER</u>		\$489,716
<u>FOR CASH POSITION ADD ^{Remainder} 3-4 CARRYOVER (\$681,070) --</u>		\$1,170,786 - 774,760
<u>LESS RESERVE REQUIREMENTS & CONTRACTUAL OBLIGATIONS</u>		\$592,240
<u>NET AVAILABLE FUNDS</u>		\$278,546

These figures represent the unaudited accounts as of March 31, 1988.

William D. Angst

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President