



IWA PIPELINE



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SWINE FLU PREPAREDNESS...

As everyone knows by now, the H1N1 virus, commonly called Swine Flu, has spread around the globe and reached the US this year. According to Time Magazine (8/17/2009), "The good news is that H1N1 is not, so far, a particularly severe disease for those who are healthy....H1N1 tends to be no worse than the seasonal flu....The bad news is that H1N1 is highly contagious and, unlike many other flu viruses, is particularly hard on children and teens." Federal officials say a two shot vaccination probably won't be available until at least October, with 160 million Americans needing the shots that should be spaced four weeks apart.

IWA incorporated a pandemic flu outbreak response as part of our Emergency Response Plan in 2006 in response to the Avian Flu "scare." Since Swine Flu infections are expected to surge in the US as schools reopen, IWA managers are reviewing our Emergency Response Plan and preparing their departments for possible shortages of personnel.

Here's hoping that, as with the Bird Flu, this Swine Flu pandemic turns out to be just another exercise in preparedness.

CLEARWELL PUMP REPLACEMENTS ...

IWA's transfer pumps replacement project continues to move forward. The transfer pumps are located on top of the clearwell. The pumps move the water produced in the plant to the two five million gallon storage tanks located at the R.O. Plant.

Three new stainless steel pumps with 50hp motors are on order and are being manufactured by Afton Pumps Inc. of Houston Texas. The three new pumps will replace three smaller iron pumps that were installed almost thirty years ago. Two of the pumps in conjunction, will handle the total R.O. Plant production which will give us an installed



Concrete Pipe Support Pad

"hot" spare. These pumps are a critical component to the supply chain that brings potable water to the door step of our members. Our plant personnel will sleep a little better knowing that when we have a pump or motor problem we will have a spare that can be brought online, allowing us to maintain the full production capacity of the Reverse Osmosis Water Treatment Plant.

Recently the concrete slab that will support the above ground stainless steel pump header was formed and poured. We are trying to get all the preparation work done on schedule so that when the new pumps arrive in the Fall we will be ready to install them. Work is also underway with the new stainless steel above ground pipe manifold that is being fabricated. The welding and fabrication work is being done by United Mechanical and Titan Manufacturing in Fort Myers. The twelve inch diameter manifold will connect the three pumps together and will be attached to the transfer line that runs to our five million gallon storage tanks. The larger pipes and header will lower the pressure required which will save electrical costs for years to come.

There is never a shortage of repair, replacement, or installation work at a water utility.



*Inspecting the Stainless Steel Pump Header
Ron Leavitt - Don DuBrasky - Phil Noe (far right)*



Relocated Security Fence

RO PLANT FENCE RELOCATION...

The transfer pump replacement project required the relocation of a fence and the installation of a new section of a larger 16" underground pipe. The new pipe will be buried where a section of our existing fence was located. A permit was obtained from the City of Sanibel to relocate our old fence. The existing fence was taken down and moved to the outer perimeter of our property.



John Spurrier Transplanting a Cabbage Palm

A barbed wire topped chain link fence is just one of the utility security requirements mandated by the Florida Department of Environmental Protection (FDEP) after 9/11. The IWA Maintenance Department transplanted several native trees that were in the way of the new section of pipe and fence. The transplanted trees now stand proudly at their new locations. One of the "native" plant species discovered at our location which we would like to permanently eliminate is poison ivy!

INJECTION WELL CHECKUP...

Every five years the Florida Department of Environmental Protection requires IWA to run a Mechanical Integrity Test (MIT) of our injection well. Our injection well MIT is due in October. The Injection well battery of tests is designed to insure the integrity of our well casing. Since our injection well casing extends over 2,500 feet in the 3,200 feet deep well, this is no small task. A video survey, pressure test, temperature log, and a radioactive tracer survey are all part of the test. We are now making plans to accomplish this in October, a low production month.

The injection well is used to discharge our brine water stream that is a result of the Reverse Osmoses water treatment process. The City of Sanibel shares the injection well with IWA. The City uses the well to discharge excess treated wastewater effluent water during times of above normal rain when their demand for re-use water falls off. The injection well will be offline for two or three days while the MIT work is done. Youngquist Brothers Well Drilling will be performing the test. Youngquist drilled the injection well, ten years ago and they also performed the first MIT back in 2004.



*3,200 Foot
Injection Well*

STORAGE TANK INSPECTIONS ...

Another five year FDEP required test applies to the above ground water storage tanks. The two five million gallon storage tanks located at the R.O. Plant property are also due for a five year inspection and certification this year. Our plant personnel are knowledgeable and experienced at cleaning and doing minor repairs on the storage tanks. We are currently soliciting quotes for the engineer certified inspection service that is required. The tanks will be done separately to minimize the loss of storage water. As usual, we will be doing as much of the work in-house as possible. The Fall is going to be a very busy time for IWA.



Twin Five Million Gallon Storage Tanks

IWA HISTORY...

Perhaps a little history is in order; since The Island Water Association, Inc. (IWA) is approaching the 45th anniversary of its incorporation. IWA is a member-owned non-profit organization, incorporated under the laws of Florida and franchised in 1965 by Lee County to be the exclusive supplier of water for both Sanibel and Captiva. In 1995, The City of Sanibel became the franchisor for service within City limits. If you have a water meter, you are a part owner of IWA.

Two years after the original causeway was completed in 1963, the islands population began a slow but steady rise which created an increased demand for clean, safe potable water. Directors of IWA immediately undertook studies to determine the availability of a satisfactory water supply and methods for distributing it economically to the residents of the two islands. In 1966, IWA installed a 9,500-foot pipeline under Pine Island Sound to

bring potable water from what later became the Greater Pine Island Water Association. The capacity of the pipeline was about 1.4 million gallons per day (MGD) and the distribution system involved three pumping stations ... two on Sanibel, and one on Captiva.

During the following years, IWA explored various schemes to locate and develop a local source of raw water which could be treated on Sanibel. IWA settled on an electro dialysis (ED) desalination plant, using water pumped from four deep brackish artesian wells tapping into one of the aquifers underlying the islands. In 1973, a electro dialysis facility was brought on-line, which could convert the brackish water to potable water. Four additional new wells were drilled the following year. The capacity of the system was 1.4 MGD. As the demand for potable water increased, the capacity of the electro dialysis facility was increased to 2.4 MGD. Included with the new plant were two additional booster stations located on Sanibel.

Continued development on both islands and increased water usage soon resulted in a water-resource problem which, in turn, resulted in a temporary moratorium on all new building permits. By this time, IWA forecast a peak daily demand of about three million gallons per day by the year 1980. After a very thorough study, it was decided that these demands could best be met by a new and very modern reverse osmosis water treatment facility. As part of this study, IWA investigated the availability of water from 600-900 feet underground, in the Hawthorne and Suwannee Aquifers. These aquifers continue to supply a reliable source of water to this day.

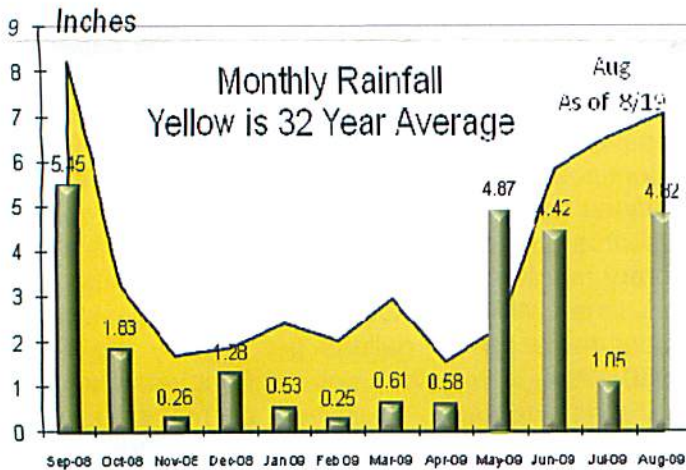
In May of 1980, the Reverse Osmosis facility was dedicated. It was computer controlled, and at the dedication, the first of six trains was put into operation. Each train was designed to have a capacity of 605,000 gallons of water per day. Future expansion, with all six modules installed, would provide the islands with 3.6 million gallons per day. Included with the facility were two new storage tanks, each with a capacity of 5.0 million gallons, bringing the total storage capacity on the islands to over 16 million gallons. The ED Plant and subaqueous Pine Island line have since been decommissioned over subsequent years.

Potable water on barrier islands like Sanibel and Captiva is expensive to produce, requiring large quantities of electricity and chemicals. We have seen many changes over the years due to improving technology and the changing demographics of the islands. As a result, IWA's capacity is now over five MGD, despite still having just six treatment trains. IWA is devoted to its motto of provid-

ing "Quality water at a Reasonable Price." If you would like more information about **YOUR** company, check out our web site at www.islandwater.com.

JULY HAS RECORD LOW RAINFALL ...

July's water production was up almost 20% from last July as a result of this years record low summer rains. Based on the first two weeks in August, the rains are beginning to fall as they should at this time of year. We just don't need any hurricanes to come with the rain. We have now passed the five year mark since Hurricane Charley visited the area on August 13, 2004.



ANOTHER IWA GUEST ...

It is not unusual to share our facilities with wildlife. We have had quite a variety of critter neighbors over the years including birds, snakes, walking catfish, alligators, and stray cats like our office cat Lizzie who has now been with us for ten years. This summer a pair of Killdeers set up home on our gravel lot. If you look real close under the bird, you will notice four eggs that look very similar but do not exactly match the surrounding rocks. We had to rope off the area until the bird could finish raising its family. We always try to be good neighbors to our wildlife friends.

Killdeer



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