

Water Conservation at Oakland Hills Country Club

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FOR MANY YEARS the water used to cool the air conditioning units in our massive clubhouse was not recycled; instead, it was simply dumped into the storm drain which flows from our property. At peak use we were using and wasting 300 gallons per minute. In the past this was not a concern because of ample water in our wells and inexpensive electricity. As the cost of utilities increased and the water levels in the wells continued to drop, the club became concerned and investigated methods of conserving these valuable resources.

In 1973 we proposed a plan that would allow us to reuse the water being discarded from the air conditioners. We intercepted the discharge line with an underground sump (4' x 8') containing a 7½-HP submersible pump. The pump is controlled by a float that turns it on and off as the supply increases and decreases.

The installation was begun in 1974 with the laying of a 4-inch underground PVC line. The distance from the clubhouse to our irrigation pond was around 1,600 feet. We installed 1,300 feet of

pipe to a hill behind our 16th Hole. There the water was pumped into a holding pond at the top of the hill. Because the water is quite warm after being used to cool the air conditioners, we decided to pass the water over a few small rocks and falls to cool it to air temperature. Once at the bottom of the hill (some 130 feet), we installed another holding pond before allowing the water to complete its journey to its eventual destination; the irrigation pond. The water temperature is dropped from the mid-80-degree range to the upper-60-degree range. This temperature is often cooler than the lake on a hot summer day. We have eliminated the danger of upsetting the ecology of the lake with warm water.

It is estimated that we are able to conserve 18,000 gallons per hour on a hot day, or 372,000 gallons per day. This is three-quarters of our daily requirement. It may be several years before we can say that we have saved enough money to pay for the installation of our recycling program, but we are saving a precious resource that was being wasted. The average savings per year will be nearly 30,000,000 gallons of water!

Showing the beauty that can be worked into water conservation.

