

## **Fairchild Challenge #6 Review**

Columbus

Fairchild Tropical Botanic garden

As a part of the Fairchild Challenge, we were given the opportunity to ask people we know three simple yet engaging questions about Florida plants and water and record their answers. These questions were:

1. Why are mangroves so important to the Florida ecosystem, and why should we be concerned if we cut them down?
2. Why is the Aquifer so important to daily life in Florida?
3. How would a severe water shortage affect your life personally?

My most noticeable observation with these interviews is that the younger people are far less informed than their older counterparts. The adults have been living in south Florida longer than the younger people have and so have had more exposure to the environment around them. Although the adults' answers were for the most part more informed than the younger people, there were some who were in fact clueless.

A number of the people interviewed did not even know what the Florida Aquifer is: the source of fresh water for millions of Floridians. If the Aquifer is suffering, so is our supply of water that we need to survive. This would lead to a water shortage and numerous restrictions by the local government to preserve as much water as possible. Again, some of the older ones were just as clueless as the younger ones. Many simply worried that they would not be able to wash their cars, water their plants, or even shower for weeks at a time. As we all know, this is not true, but daily life activities that require water must be controlled and, if necessary, eliminated.

The government cannot take away water; it is the most basic need for human survival, more necessary than food. We often do not realize how wasteful many of our daily activities are: long showers and baths, washing our cars or dishes, cooking. If strict water restrictions were in place, many of these things would have to be limited or not be done entirely. Many car washes would close down and people would buy less showers and sinks to save on their water bill. Water restrictions, then, place a tremendous burden on the local economy.

So how, then, can we go about preventing things like this from happening? The preservation of the water in the Aquifer is essential to the prevention of water shortage. As south Florida becomes more and more overpopulated, the environment is less and less capable of sustaining itself. Rainwater cannot reenter the Aquifer and replenish the water supply faster than human population growth. Additionally, development of new lands requires filling in recharge areas, or holes in the aquifer where rainwater is able to permeate through the limestone and be available for our use.

It's hard to control overpopulation. It is a burden on the water supply, and with further land development, it becomes even harder for the Floridian landscape to recover. So a few restrictions might need to be put into place to prevent wasteful and completely superfluous water use. Among these could be not watering your lawn during hours of bright sun when the water will

simply evaporate, only being limited to one car wash a month, or taking shorter showers. Obviously, the local government cannot monitor what occurs in the privacy of your own home, and simply telling people to obey these rules without any proper enforcement will be completely ineffective. So my solution is to give a “water allowance” to each household for them to budget every month. If they surpass the budget, they will have to pay a hefty fine for every extra gallon of water they use. People may find it upsetting at first, just as they do whenever they first experience change, but in the future when they realize the effectiveness of the measures they took in the past, they’ll be glad they did.

Florida is headed on a dangerous path to environmental disaster, and nothing will happen unless something is done about it. The first step should be education: a number of the people interviewed did not even know what we were talking about! The people cannot work for and protect what they do not know. Once they know what they are preserving and why they are preserving it, the proper rules and restrictions must be put into place to prevent any further environmental disaster. It is already mandatory for all mangroves to be replanted if they are for whatever reason removed, but this honor system is hard to enforce. Efforts should be made to not only replenish dead or killed mangroves but plant new ones in new areas as well to compensate for the growing population they need to provide for. Additionally, preventative water preservation measures like those mentioned should be made a priority, not necessarily because the aquifer and water supply is in fatal danger now, but because if we continue on the same path we are currently on, they will be.

Florida is much too great of a gem to lose. With such high stakes, it is imperative that we take action in the present to make up for negligence in the past and prevent any problems in the future.