

Fairchild Challenge Option 6

One of the many challenges faced by environmentalists today is the lack of public knowledge on pressing issues. Many people consider themselves well versed on the importance of the relationship of plants and water in our ecosystems. However, the general public continues to make the same mistakes due to educational shortcomings. Landscape conservation efforts become a moot point without the understanding and support of the people. Knowing the extent of the average citizens' environmental knowledge can help environmental stewards fill in the gaps and create a well informed populous that will abide by the landscape conservation laws and good water management choices. Through a series of interviews, a representative sample of citizens was questioned about their knowledge of water conservation efforts in their community. Even though we recognize that agriculture plays a major role in water-plant relationship, our interviews are limited to our immediate urbanized community. We selected citizens from a widespread sampling group: student, teachers, family members and others.

Three questions were asked to evaluate the general public's knowledge of water, plants, and the efforts to conserve them. These questions were designed to determine the knowledge of the public, revealing in what areas the public needs the most information. The researchers originally developed and asked five questions, however these three questions most accurately reflected the knowledge of the interview subjects and were most easily understood. The video that accompanies this project consists of a sampling of

the first ten subjects interviewed. The attached chart summarizes the results from all twenty interviews. The following questions were asked to each subject:

- 1. In your opinion, how can we effectively conserve water and keep our landscapes beautiful?**
- 2. Do you believe your city (Plantation) is actively conserving water during irrigation and landscaping?**
- 3. What are the current irrigation restrictions that you are aware of?**

Question 1 Response:

The first question was answered in simple terms by most subjects. 56% of the interview subjects were informed regarding the importance of sprinkler regulation. 52% of the interview subjects thought it necessary to water green areas about twice a week. The concept of keeping a balance between a healthy landscape while simultaneously reducing water usage was understood by most of the subjects. However, the citizens seemed uninformed of other methods that can also conserve water and maintain beautiful landscapes. They were not informed on adequate water amounts, drip irrigation, or using plants that are drought tolerant (xeriscaping). Knowledge was evident, but a vast majority of efforts were not understood.

Question 2 Response:

Answers to the second question varied, raising the question of global versus local knowledge. Global warming is a hot topic, however citizens may not be aware of how they can have a positive impact in their very own community. The subjects ranged from unsure about local efforts to seeing them as futile. Judging by the data, it appears that

56% of the interview subjects are unaware of conservation in their community. This local confusion is indicative of the national and global implications of an uneducated population. Uninformed citizens may inadvertently hinder the process of conservation. And as for those who believe the efforts made by their community as futile, these citizens should rally together and improve efforts by all means possible, for the sake of their community.

Question 3 Response:

About half of the citizens seemed well informed regarding the environmentally savvy practices of: watering at sundown, restricted irrigation during drought season, and restricted watering days. The restrictions seem to be understood because of the monetary fines they are often associated with. As with most things, people are more likely to respond if they are penalized for their actions. This information should be taken into account when trying to implement some more difficult policies that the community may not respond to willingly, such as only being allowed to water on certain days of the month. Such as, a remarkable 44% of subjects claimed to not know of any of these simple tasks that can be done to conserve water. It is clear that water restriction is an area in which citizens need guidance and education.

Review:

From the information gathered it appears that about 60% of citizens are informed of the general guidelines for conserving water and preserving plants. Citizens seemed informed of the elementary practices of water conservation, but this is no longer enough. The demand for water is ever growing, and these simple practices won't keep the supply above the demand for much longer. As cities and municipalities make steps towards more complex, and generally more effective, methods of conservation, it is important that the

citizens move along with the technology and knowledge. If citizens are only informed of older and slightly more outdated practices of water conservation, then that is what they will most likely practice, if even that. Confusion in regards to whether or not the community was actively conserving water is a prime example of miscommunication and misunderstanding.

Ideas for the Future:

Educating the community should be the first step in implementing conservation strategies. Through public service announcements, social media, flyers, posters, workshops, and more, communities can communicate their ideas, educate the people, and entice citizens to join in their efforts. Citizens should be aware of conservation strategies that they can implement in their own home. Xeriscaping, using reclaimed water, and not watering during the rainy season are simple practices that the community can be informed of and begin implementing on a small scale. If communities are actively conserving water for the sake of healthy landscaping then they must inform their citizens of their efforts to truly succeed in these efforts. Citizens should also understand that they can assist simply by calling to report malfunctioning or broken sprinklers which often waste water on concrete or non green spaces. It is also essential to educate citizens about current irrigation restrictions, as they seem to be lacking most in this area. Citizens should take advantage free irrigation timers given out by cities for free. Many citizens are probably also unaware of prorated water bills, which are lower rates from those who use less water. Citizens may also be more likely to xeriscape when they learn that there is a property tax credit associated with drought tolerant plants. With this information the citizens and the city can work together in moving towards water conservation.

Communities must inform their inhabitants of potential conservation strategies before and as they implement them on a large scale. As individual communities move towards water conservation it is imperative to bring the people along with it. Further, by informing school children, the future citizens will grow with a stewardship mindset. Although there will be those who resist change, with time and education entire communities can conserve significantly more than they do now. By slightly changing the way that we function as communities and individuals, we can guarantee a secure future for ourselves and our children. Conservation is not just about ensuring the short term security of resources, but also the long term security of our communities, and more importantly, our planet.