




The Demand for Water



All of life needs water to exist. A good **two-thirds** of your body is water and you wouldn't be able to survive longer than a few days without water. It seems that water is everywhere. In fact, **three-fourths** of the earth is water but it's not drinkable because of the salt. Only a small amount of water is fresh water that we can use for drinking, cooking and watering our lawns.



Plants and animals get the water they need from rain. When it rains, water either sits on top of the ground (called surface water), soaks in (ground water) or evaporates into the air. In Tampa, we rely on the Hillsborough River for our drinking water. We depend on rainfall to keep the river high.




We live in a **humid subtropical climate**, with both wet and dry seasons. Most of our rain falls from June to September. This is also the hottest time and it's easy for most of this rain to evaporate quickly. Without enough rain, we experience a drought, or period of time when precipitation is lower than average. One good rain doesn't solve the problem. It takes a while to recover from a lack of rain or too much heat.


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Because we are so dependent on rain and the weather for our water, it's important that we conserve our drinking water all the time, not just in time of drought.



Tampa's demand for water averages **77 million gallons a day**. Most of the demand is pumped from the Hillsborough River reservoir. Our sources of water are surface water, such as rivers, lakes and streams, and groundwater from springs and aquifers.




The average Tampa household uses **200 gallons of water each day**. Bathrooms account for almost half of indoor water use. Undetected water leaks make up 24% of our indoor water use!

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Reclaimed Water

Reclaimed water is an increasingly popular resource for reducing the usage of natural water resources. Water from treatment plants goes through an extensive filtration process and is redirected back into the water supply. This supply of water is not used for drinking but instead is used primarily for irrigation of landscape and cooling.

In Tampa, the **Howard F. Curren Advanced Wastewater Treatment Plant** is our source for reclaimed water. Using this treatment plant is a very big step in conservation of our planet because water is being recycled versus taken away from its natural source.



From **March** until **June**, the Hillsborough River is at its lowest point. This means that water demand is at its highest for irrigation. By simply using reclaimed water, we can offset drought and help preserve the water levels in the Hillsborough River saving potable, or drinking, water for us to use in our homes.



Another benefit of reclaimed water is that our lawns require less fertilizers. Reclaimed water is loaded with a high nutrient content, and it smells better too! High nitrogen levels make our lawns a lush green while utilizing less harmful chemicals, which can harm Tampa Bay's vulnerable water supply.

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Word Search

R	X	C	N	N	O	B	G	K	E	C	D	D	P	N
H	E	F	O	J	I	R	L	T	J	X	S	R	Q	O
L	C	T	E	B	E	A	A	L	S	K	E	O	X	I
D	Z	W	A	C	S	R	R	E	Z	C	A	U	I	T
D	Y	J	Y	W	O	E	Q	O	I	X	D	G	P	A
B	R	C	L	P	D	J	R	P	C	Q	O	H	F	M
B	L	N	A	Y	H	N	I	V	N	K	X	T	V	A
E	V	V	Y	A	N	T	U	A	E	Y	L	C	U	L
C	E	S	K	X	A	Z	P	O	H	S	J	L	F	C
Z	R	R	E	T	L	I	F	K	R	T	B	U	M	E
O	A	B	I	C	K	N	Q	P	T	G	I	U	M	R
F	R	O	H	G	U	O	R	O	B	S	L	L	I	H
W	N	R	E	S	E	R	V	O	I	R	I	O	H	H
N	U	G	S	R	O	R	O	W	U	U	Z	N	P	J
N	G	K	D	T	D	J	U	N	B	Z	W	W	Q	Y

DROUGHT
EVAPORATE
FILTER

GROUNDWATER
HILLSBOROUGH
PRECIPITATION
RAIN

RECLAMATION
RECYCLE
RESERVOIR

Answer
(backwards)



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Use these words to fill in the blanks:

evaporate **Undetected water leaks** **surface water** **reclaimed water**
ground water **fertilizer** **irrigate**

1. Recycled water is referred to as _____.
2. March through June is the hottest time of year and it's easy for most of the rain to _____ quickly.
3. When we use reclaimed water, our lawns require less _____.
4. _____ make up 24% of our indoor water use.
5. Reclaimed water is used to _____ crops.
6. When it rains, water either sits on top of the ground (called _____), soaks in (called _____) or evaporates into the air.

Answer
(backwards)

1. reclaimed water
2. evaporate
3. fertilizer
4. Undetected water leaks
5. irrigate
6. surface water; ground water

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Experiment/Activity

Student will track and graph the precipitation of a given month. They will then predict, based on weather patterns and gained knowledge, the same period of time a month later. Using this information they will summarize the affect water and the way it processed will be used by the local population and how that depletes the water source.