

WELCOME  
-TO-

# WASTEWATER TREATMENT FOR KIDS



Do you ever wonder how the water you drink and shower in gets to your home? Or what happens after you use it?



A cartoon illustration of a green duck with a yellow beak and feet taking a shower in a white bathtub. The duck is sitting in a large amount of white and light blue soap suds. A showerhead is positioned above the duck, with several vertical lines representing water falling onto its head. The duck's right foot is raised, holding a clear glass filled with blue water. To the right of the duck, there is a splash of water. The bathtub has a grey rim and a few blue water droplets on its side. The background is a solid blue color. An orange speech bubble is located above the duck's head.

Frequently.

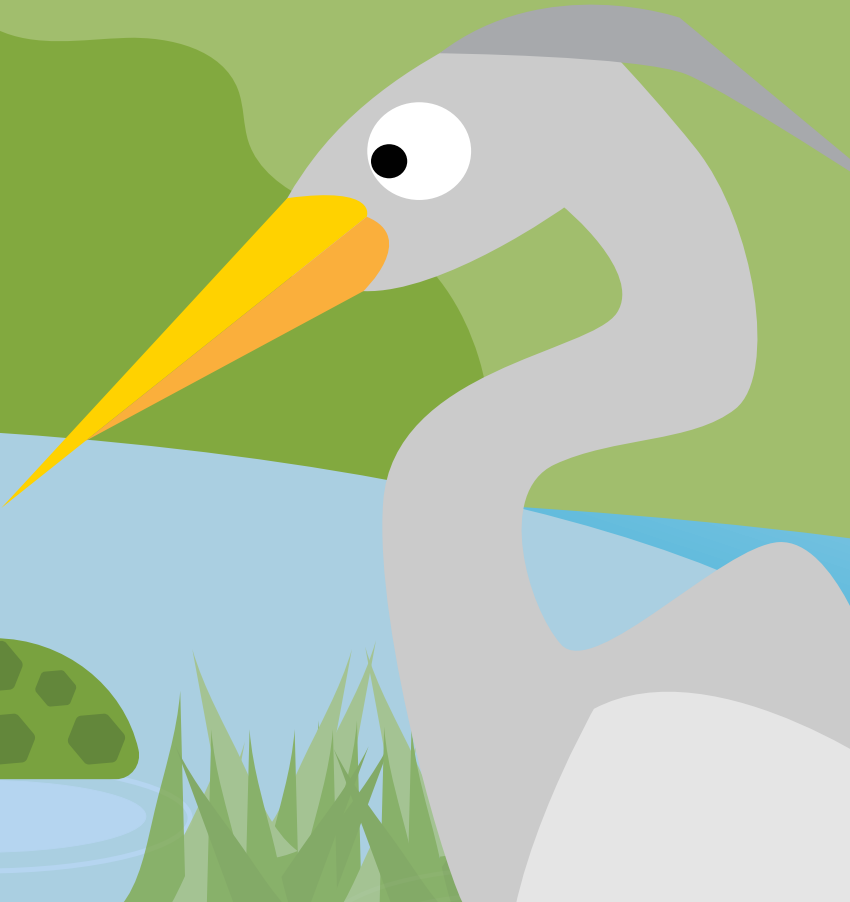
My name is Ardea. And these are my friends, Anati and Anura. We are going to take you on a trip down the Mississippi River in the Twin Cities of Minnesota and show you how we use water, clean it, then send it back to the river for others to use downstream.



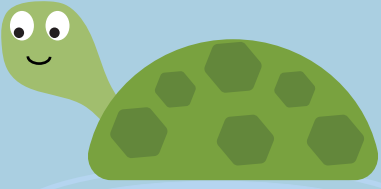
**WE**  
  
**WATER**



“Me too!”



“I love it,  
I love it!”



Every living thing on Earth - from moss and trees to frogs, birds and people - depends on water to live.



# WE USE WATER IN MANY WAYS.



Can you name some  
uses of water?

**We have all the water on Earth that has ever been here, and it is all the water the Earth will ever have. It's up to all of us to keep our Earth's precious water supply clean.**



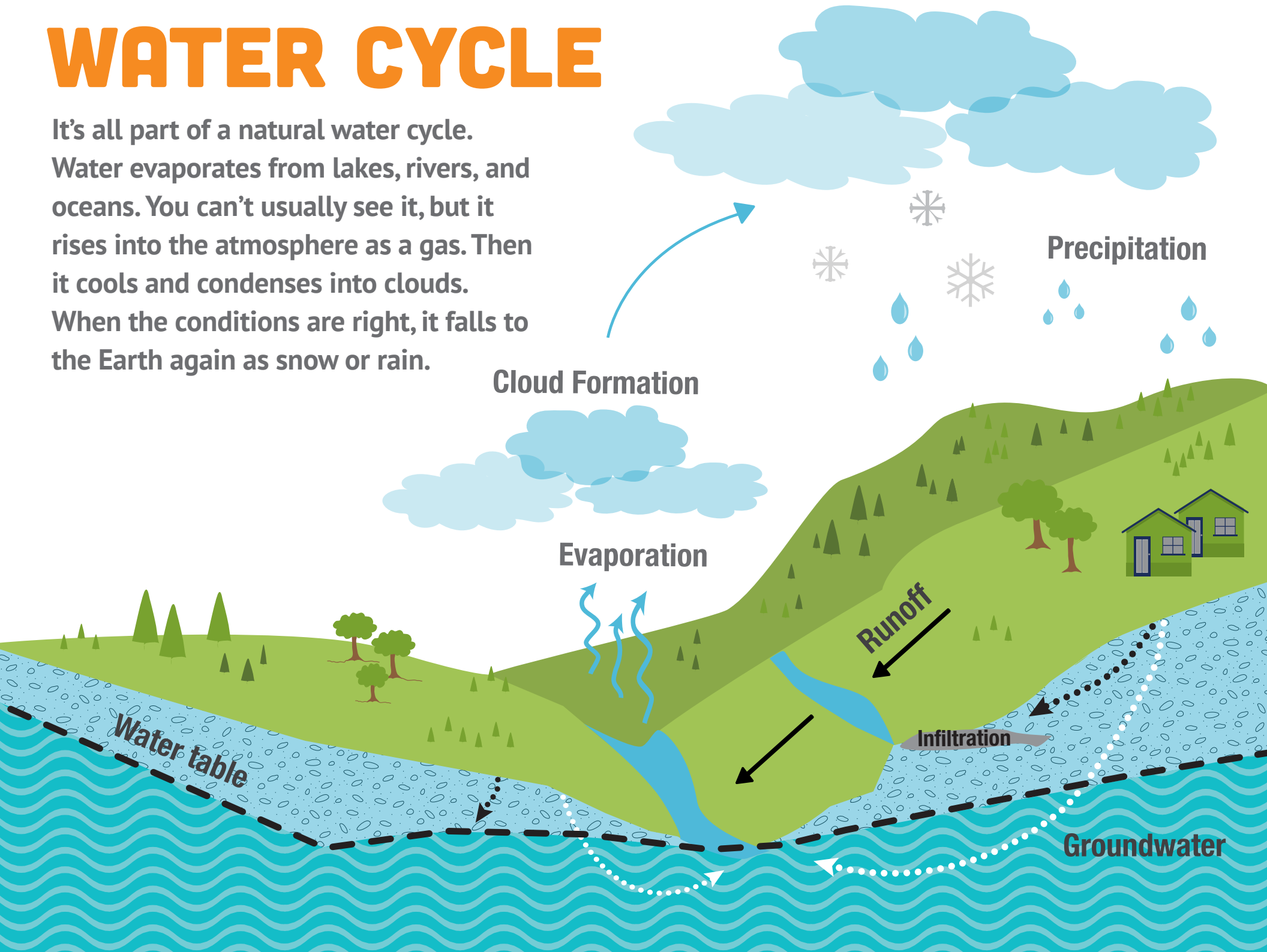


A cartoon illustration of a green duck with a yellow beak and brown body, sitting in a blue pond. The duck has large, wide eyes. In the background, there is a grey silhouette of a city skyline with various buildings and a central dome. The sky is light blue with several grey clouds and diagonal lines representing rain falling. In the foreground, there are green reeds and grasses in the water. An orange speech bubble is positioned above the duck's head.

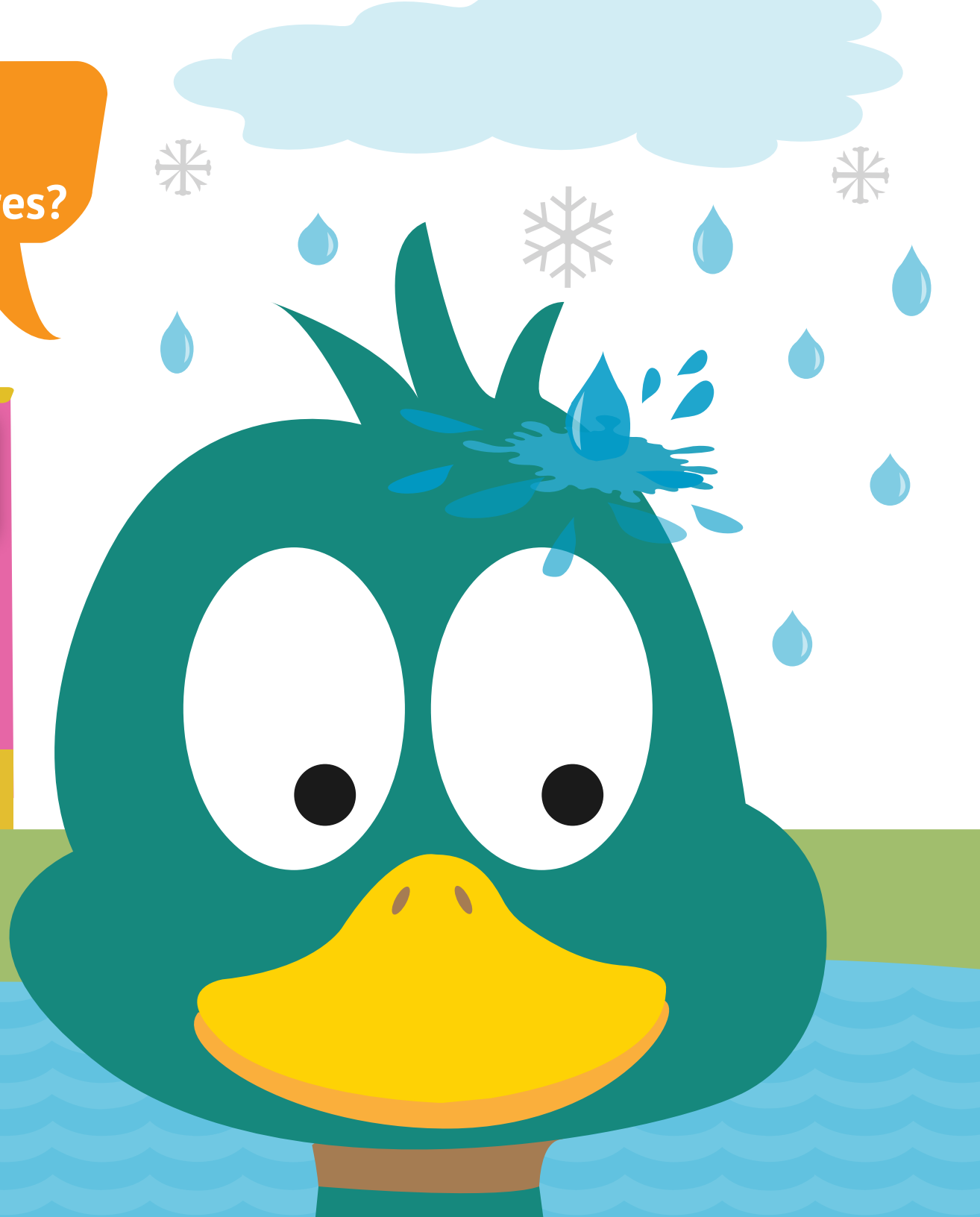
But where does rain come from?

# WATER CYCLE

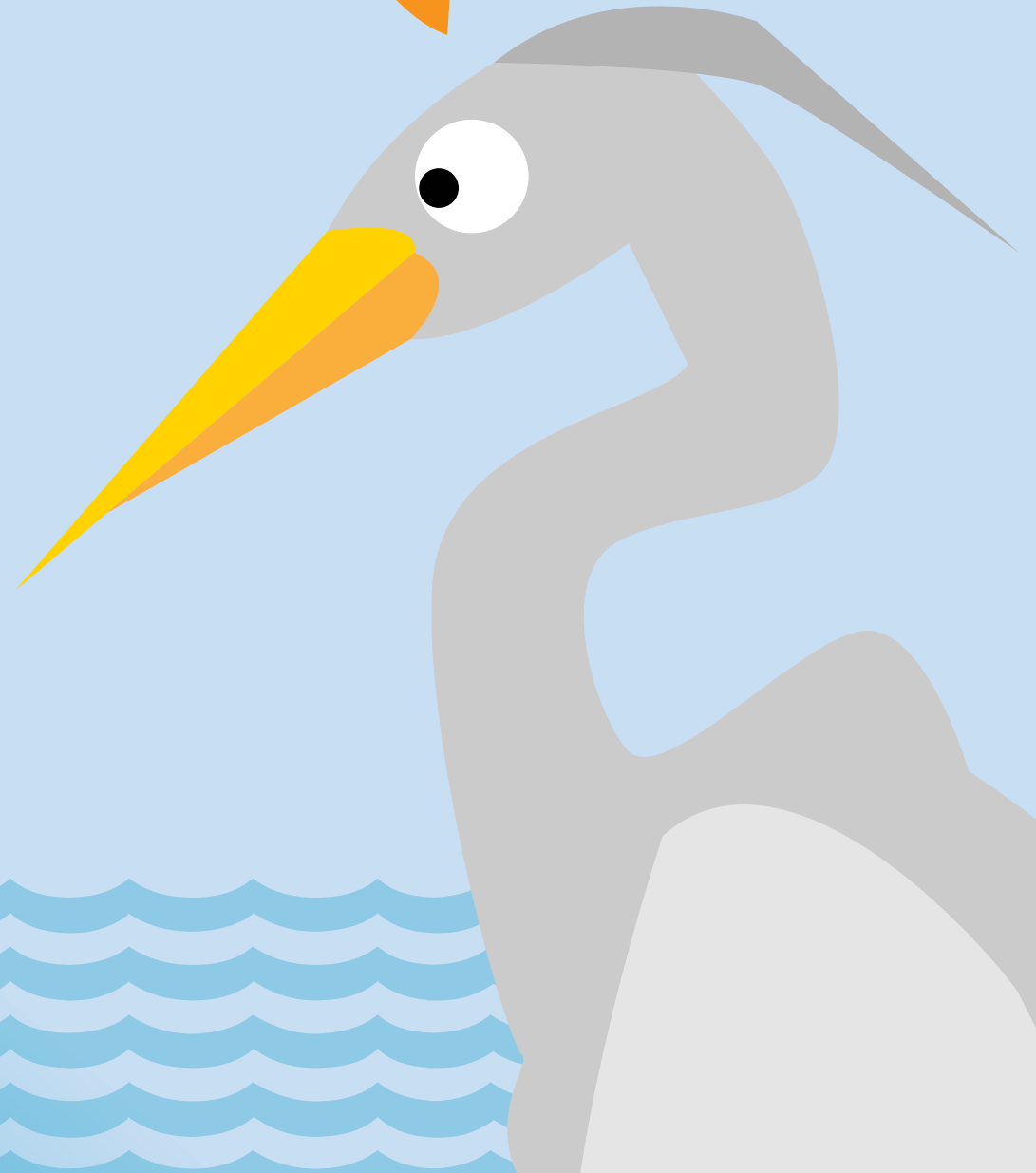
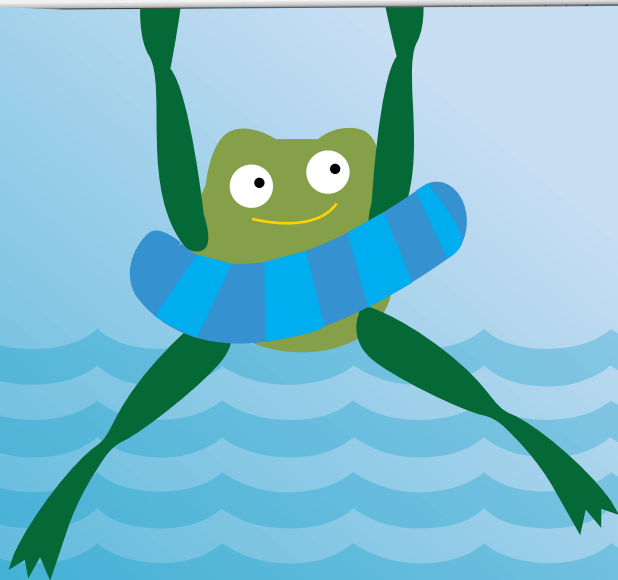
It's all part of a natural water cycle. Water evaporates from lakes, rivers, and oceans. You can't usually see it, but it rises into the atmosphere as a gas. Then it cools and condenses into clouds. When the conditions are right, it falls to the Earth again as snow or rain.



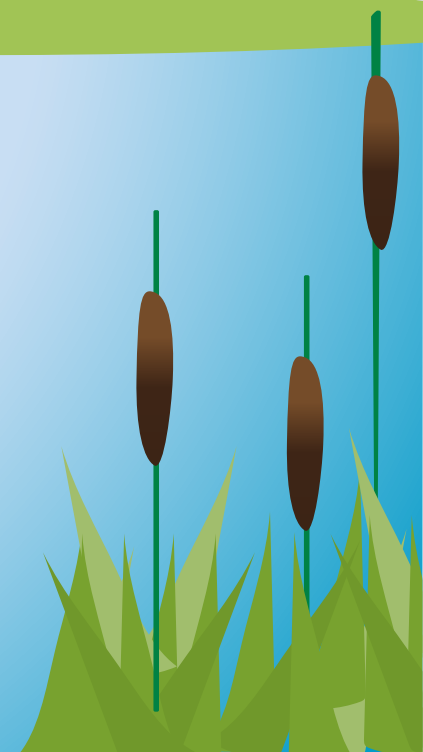
But how does the water get to places like our homes, schools, and stores?



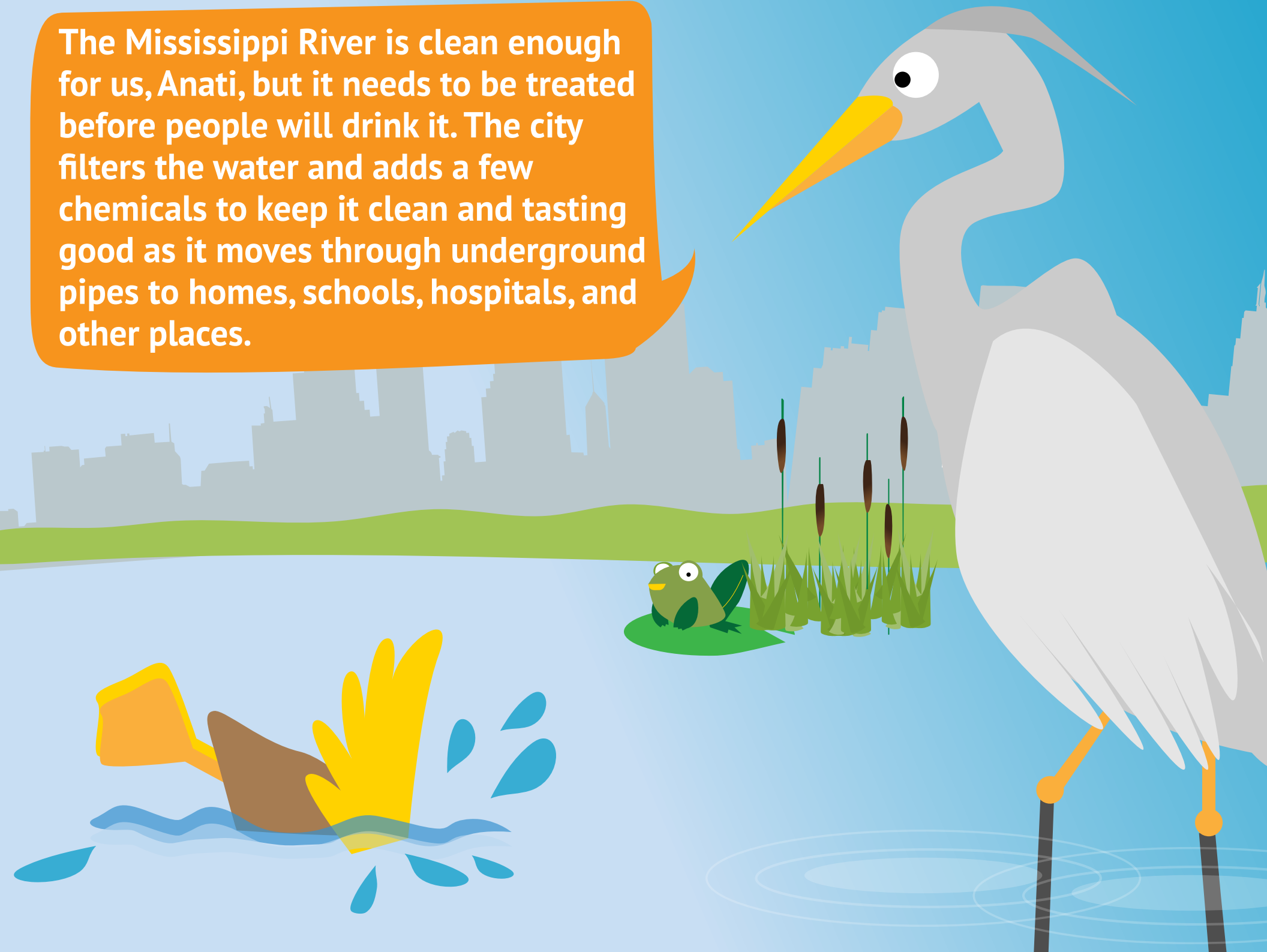
If you live in Minneapolis or Saint Paul, or many of the surrounding cities, your water comes from the Mississippi River.



Do people drink water  
right out of the river?



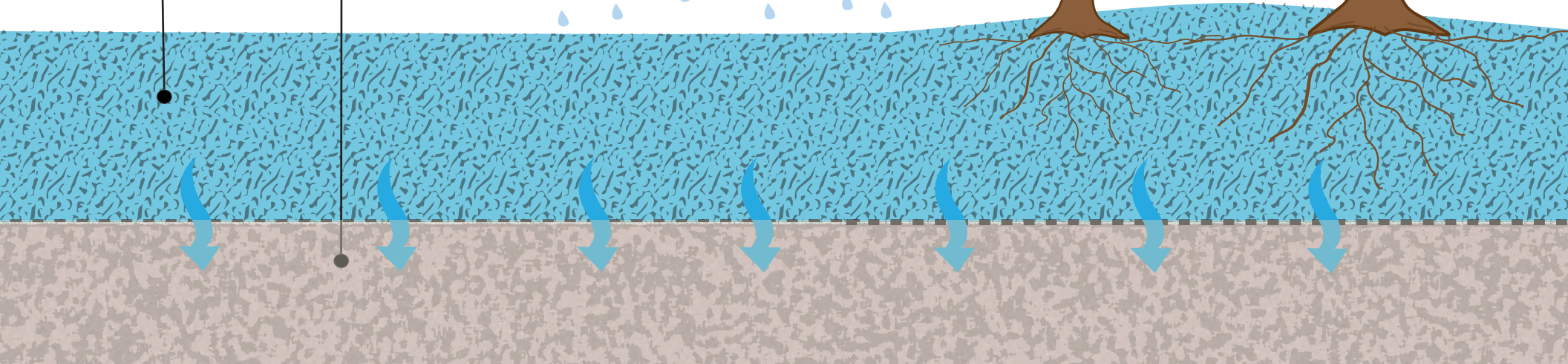
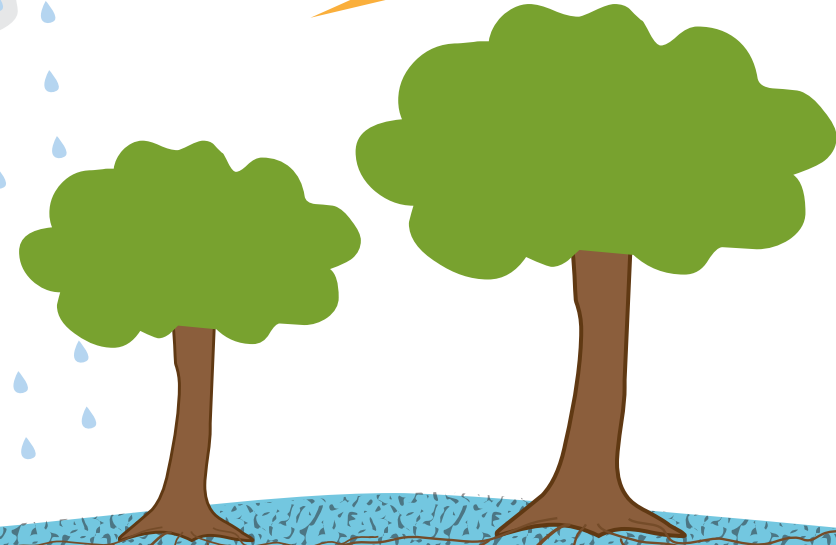
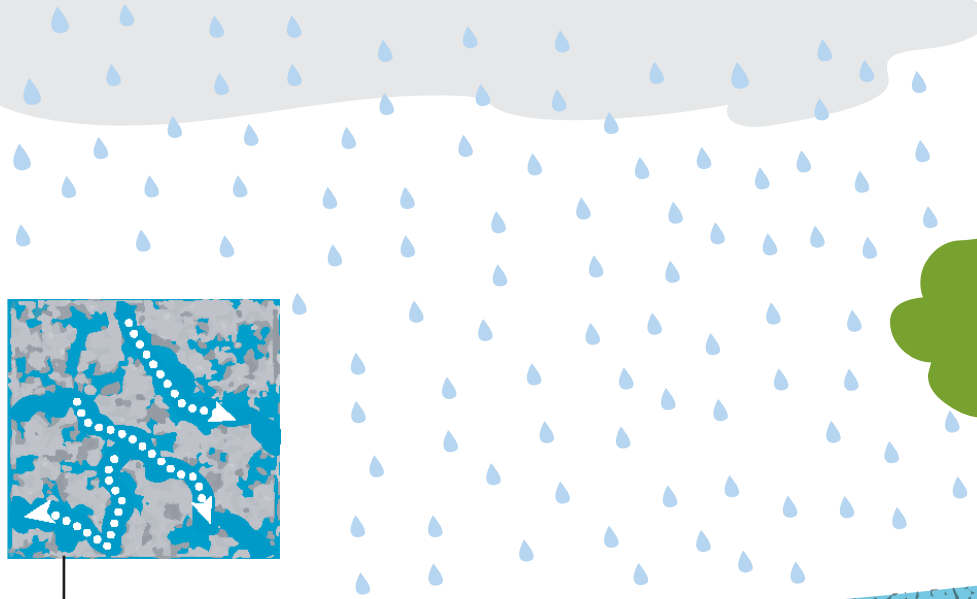
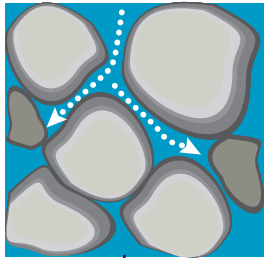
The Mississippi River is clean enough for us, Anati, but it needs to be treated before people will drink it. The city filters the water and adds a few chemicals to keep it clean and tasting good as it moves through underground pipes to homes, schools, hospitals, and other places.



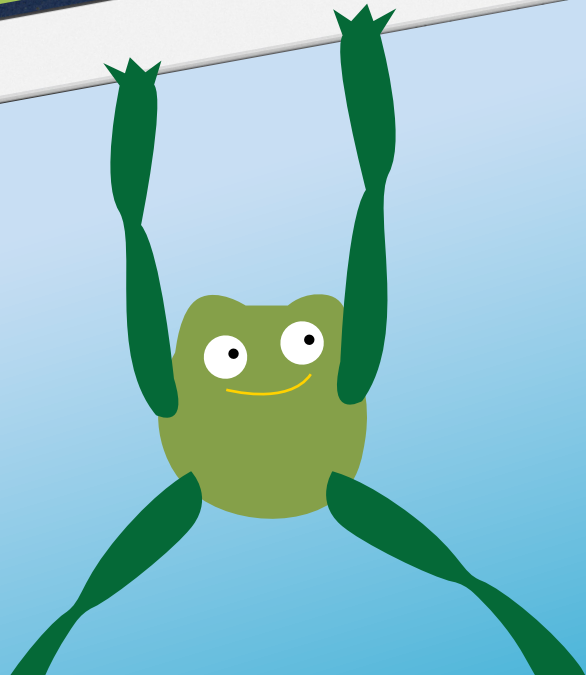
But what if I live farther from the river?



Many cities get their water from deep underground, from what are called aquifers - layers of rock that store and transport water. Remember the water cycle? Some of the water that falls from clouds soaks into the ground and eventually will reach an aquifer.



Cities dig deep wells into an aquifer and then pump the water high into big towers to store it.

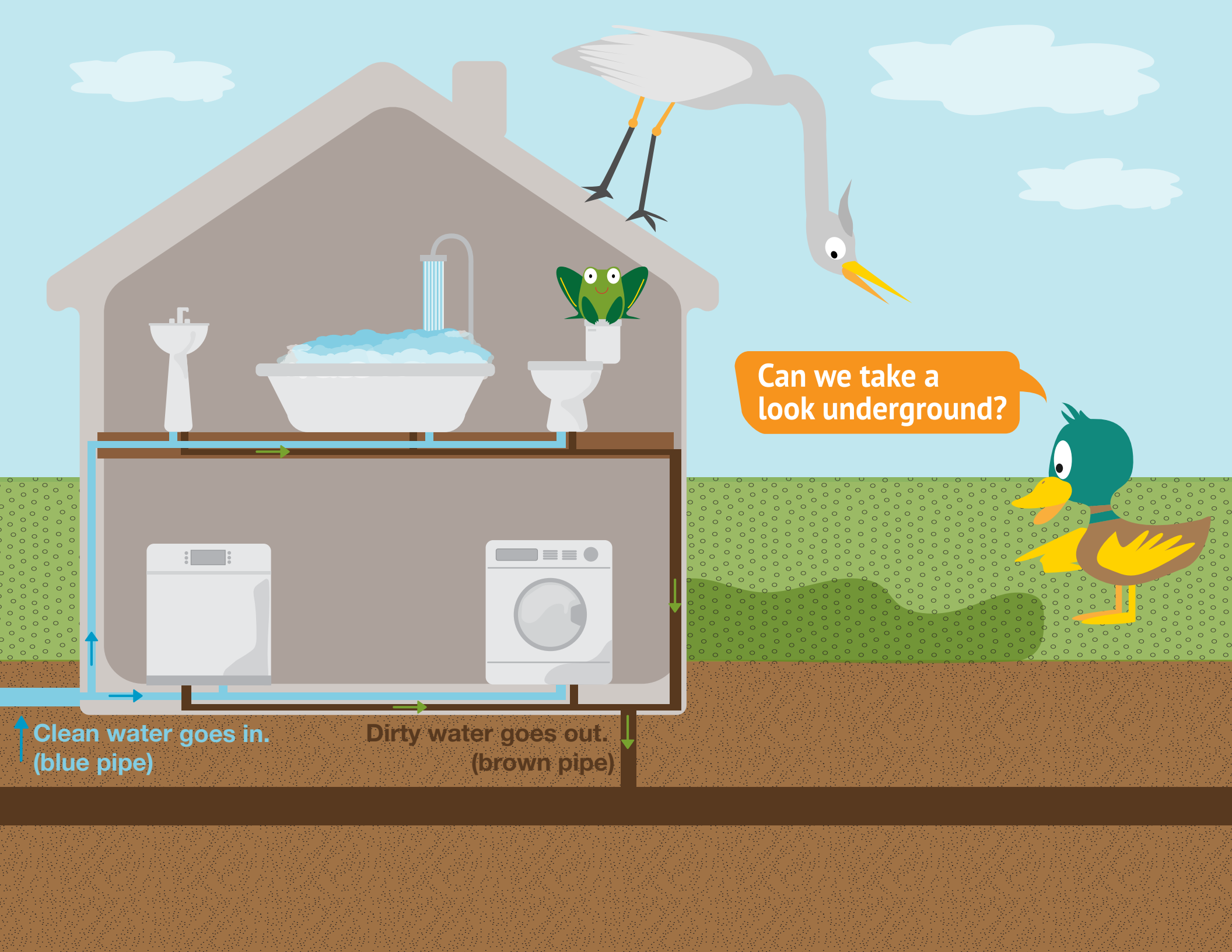






From there it flows down  
and into pipes that go to  
homes and other places.

If I swam through all  
those underground  
pipes, I'd be swimming  
for thousands of miles!

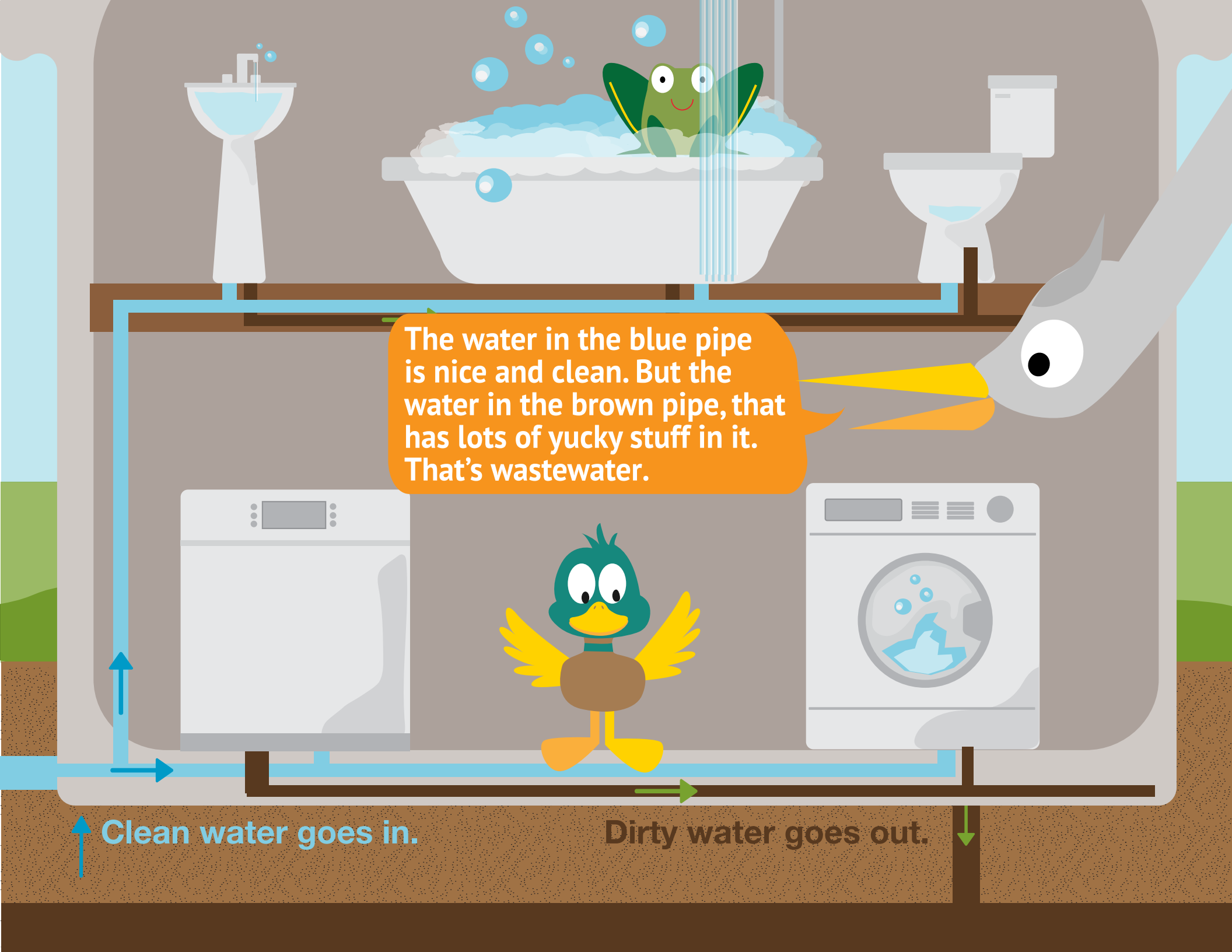


Can we take a look underground?

Clean water goes in.  
(blue pipe)

Dirty water goes out.  
(brown pipe)

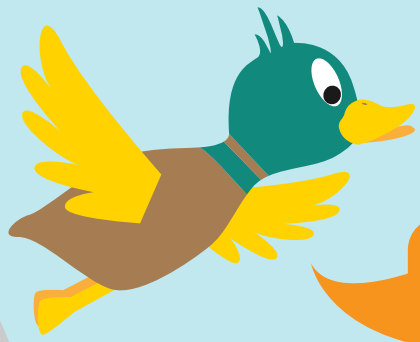




The water in the blue pipe is nice and clean. But the water in the brown pipe, that has lots of yucky stuff in it. That's wastewater.

Clean water goes in.

Dirty water goes out.



Where does the dirty water go?

The pipe from the house joins a bigger pipe in the street that leads to even bigger pipes that take the dirty water all the way to a wastewater treatment plant - that's where the water gets cleaned. Then the water is returned to a river and is part of the natural water cycle again.



Ready to take our friends to visit the Metro Wastewater Treatment Plant?



# HEY!

Before we tour the plant, let's take a little break!  
Print the next two pages and color them!

