

ESCUELA: Escuela Agrotécnica Gonzalo A. Doblas

DOCENTE: Isabel Montaña

GRADO: 6to año, ciclo orientado

TURNO: Mañana

ÁREA CURRICULAR: Inglés Técnico III

TÍTULO DE LA PROPUESTA: Agriculture: Groundwater

Lectura comprensiva de texto y extracción de vocabulario técnico. El Bombeo De Aguas Subterráneas Drena Ríos Y Arroyos En Todo El Mundo.

Lee la siguiente propuesta pedagógica y completa las actividades.

## Actividades

### Primera actividad

Complete: What's the Spanish for..? Use the dictionary: <https://www.wordreference.com/>  
(5-7minutes)

ENGLISH	SPANISH
agriculture	
aquifer	
climate	
crop	
current	
ecology	
ecosystem	
freshwater	
groundwater	
habitat	

### Segunda actividad

Look at the picture. Read the following text.(10-15min)

ECOSYSTEMS

## Groundwater pumping is draining rivers and streams worldwide

Over half of pumped watersheds could pass a serious type of limit by 2050



By [Jonathan Lambert](#) November 6, 2019 at 6:45 am

- 1 Humanity's thirst for groundwater is threatening natural waterways.
- 2 Most of Earth's freshwater sits underground. Tapping this groundwater has enabled farming in drier places. One example is California's Central Valley. That's where about one-fourth of U.S. food comes from. Groundwater is what made this region's crop production so bountiful.
- 3 Worldwide, about 70 percent of the groundwater pumped to the surface goes for farming. But surface waters — rivers and streams — rely on groundwater, too. Pumping large amounts of groundwater over a short period can be harmful. Natural waterways can begin to empty. And that can hurt freshwater ecosystems. Scientists consider this a tipping point. That's when small actions can begin having unusually big impacts.
- 4 A new study has found that 15 to 21 percent of tapped watersheds have reached this sort of tipping point. Most of those tapped rivers and streams are in dry regions. They include parts of Mexico and northern India. Farmers in these areas use groundwater to irrigate their crops. At current pumping rates, the study predicts that 42 to 79 percent of watersheds around

the world where groundwater is pumped up for use at the surface will reach tipping points by 2050.

5 “It’s really quite alarming,” says Inge de Graaf. As a hydrologist, she studies the distribution and circulation of the Earth’s water. She works at the University of Freiburg in Germany. Groundwater and surface waters are closely linked, she says. “Too much pumping creates a ticking time bomb.”

6 A healthy groundwater aquifer protects ecosystems against seasonal ups and downs in the availability of water. That provides stability for area plants and animals. But if too much groundwater is pumped up from below, surface waters will begin to drain into the aquifer. And that can harm what is living in rivers and streams.

7 De Graaf and the study team created a computer model. It linked groundwater pumping and water flows within rivers. The model covered five decades, from 1960 to 2010. Then the researchers used climate forecasts to help the model predict what might happen in future years. Throughout, they kept groundwater pumping rates constant. More than half of pumped watersheds are likely to cross this ecological threshold before 2050, the model finds.

8 “We need to be thinking about this now, not in 10 years,” de Graaf says. “Our study shows us where to target more sustainable efforts.”

### Tercera actividad

Write T for true and F for false. (15-20min)

- a. Tapping groundwater has enabled farming in wetter places. One example is California’s Central Valley and South Carolina.\_\_\_\_\_
- b. According to Inge de Graaf, surface waters and groundwater are closely linked.\_\_\_\_\_
- c. Only 10 percent of the groundwater pumped to the surface goes for farming, and 60 percent goes for factories.\_\_\_\_\_
- d. Groundwater aquifer protects ecosystems against casual droughts. That provides

stability for area plants and animals.\_\_\_\_\_

e. More than half of pumped watersheds are crossing this ecological threshold *before* 2050.\_\_\_\_\_

#### Cuarta actividad

Match the definitions with the concepts.

<b>aquifer</b>	<b>-climate-</b>	<b>irrigation</b>	<b>-groundwater</b>	<b>-habitat</b>	<b>-agriculture</b>	<b>- current</b>
						<b>-crop</b> - <b>sustainable</b>

1. The area or natural environment in which an animal or plant normally lives, such as a desert, coral reef or freshwater lake. A habitat can be home to thousands of different species.\_\_\_\_\_
2. A fluid — such as of water or air — that moves in a recognizable direction. (in electricity)The flow of electricity or the amount of charge moving through some material over a particular period of time.\_\_\_\_\_
3. An engineered supply of water to land or crops to help growth.\_\_\_\_\_
4. The growth of plants, animals or fungi for human needs, including food, fuel, chemicals and medicine.\_\_\_\_\_
5. (In agriculture) A type of plant grown intentionally grown and nurtured by farmers, such as corn, coffee or tomatoes. Or the term could apply to the part of the plant harvested and sold by farmers.\_\_\_\_\_
6. Rock that can contain or transmit groundwater.\_\_\_\_\_
7. Water that is held underground in the soil or in pores and crevices in rock. An adjective to describe the use of resources in such a way that they will continue to be available long into the future.\_\_\_\_\_
8. The weather conditions that typically exist in one area, in general, or over a long period.\_\_\_\_\_

Director: Roberto Anderson García

Docente: Isabel Montaña