

2.4.1a Water Uses and Consequences

Estimate much water is required to make each of the following items?

Use	Estimation	Actual
Pair of jeans from cotton		
2 lb loaf of bread		
1lb of hamburger		
12-oz can of soda		
1 ton of finished steel for a car		
40 sheets of paper		

Agriculture

Water is used to produce food and fiber for _____ and _____

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Logging

Water is used to _____ and _____ trees.

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Mining

Water is used in the _____ process of raw materials (coal, iron, gold, copper, sand, and gravel)

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Transportation/Shipping

_____ (_____) is used to transport raw materials and finished products to points of distribution (_____)

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Business/Industry

Water is used in the processing and _____ of goods (cars, food, medical supplies, etc)

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-

-

Wildfire

Water provides _____ for countless plant and animal species

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-

-

Recreation

People recreate in and around water for _____ and _____

- _____
- _____

Power Generation

Water is used to generate _____.

- _____

Household		Outdoor Water		Virtual Water	
shower		lawn & garden		paper	
bathtub		rain barrel		plastic	
bathroom sink		swimming pool		bottles & cans	
toilet		carwashing		fabrics	
kitchen sink		Virtual Water		diet	
dishes		driving		pet food	
laundry		electricity			
greywater system		shopping habits			

Consequences of Surface Water Extraction

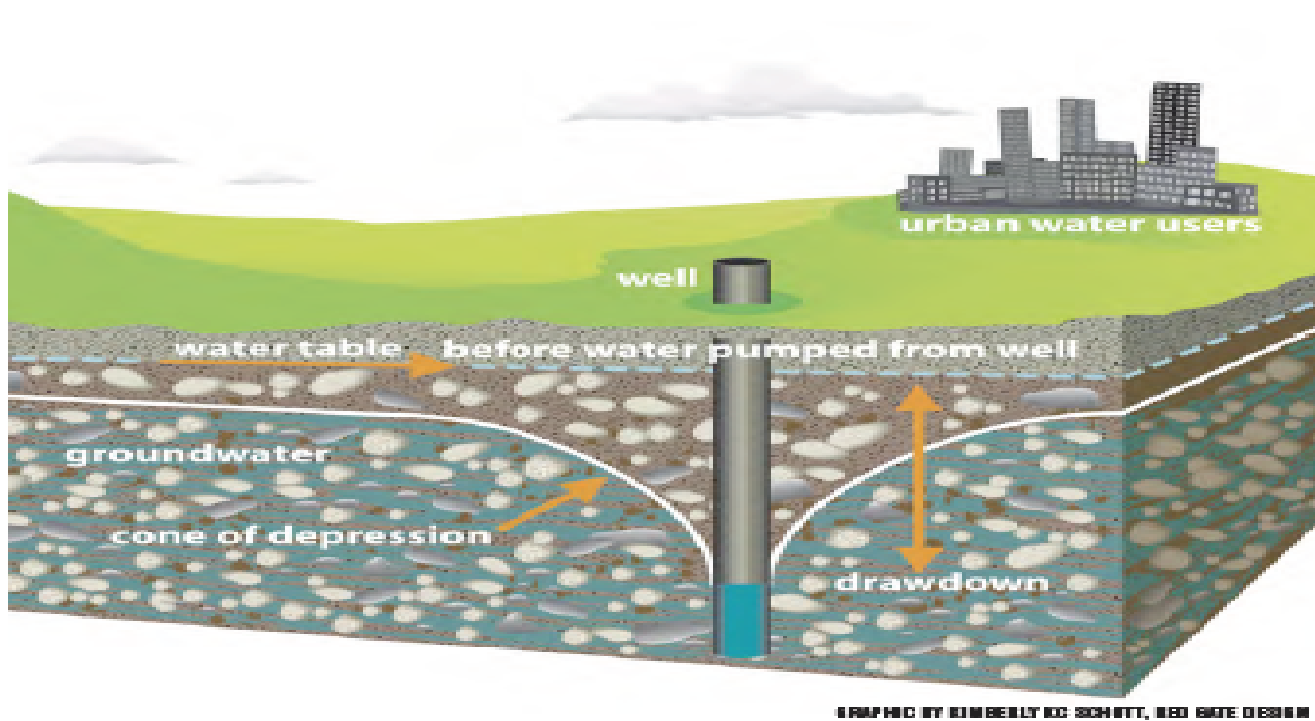
- + Requires _____
- _____ of river flow

Consequences of Dams

- + Create _____
- + Hydroelectric
- + Help with _____ control
- Human _____
- _____ damage

Groundwater: Aquifer -> Wells

- A pipe is sunk into the _____ below the water table
- Water is _____ to the surface
- NC wells vary from 20ft to more than 1,000 ft deep
- _____ of residences in the Coastal Plain rely on groundwater from wells



Issues with Groundwater

Aquifer depletion

Removal by humans of more groundwater than can be _____ by
_____ or melting snow

Subsidence

_____ of the land surface as a result of groundwater being _____
out; can also be caused by other disturbances

Salt-water intrusion

Near the coast, over-pumping of groundwater causes _____ to move into the aquifer