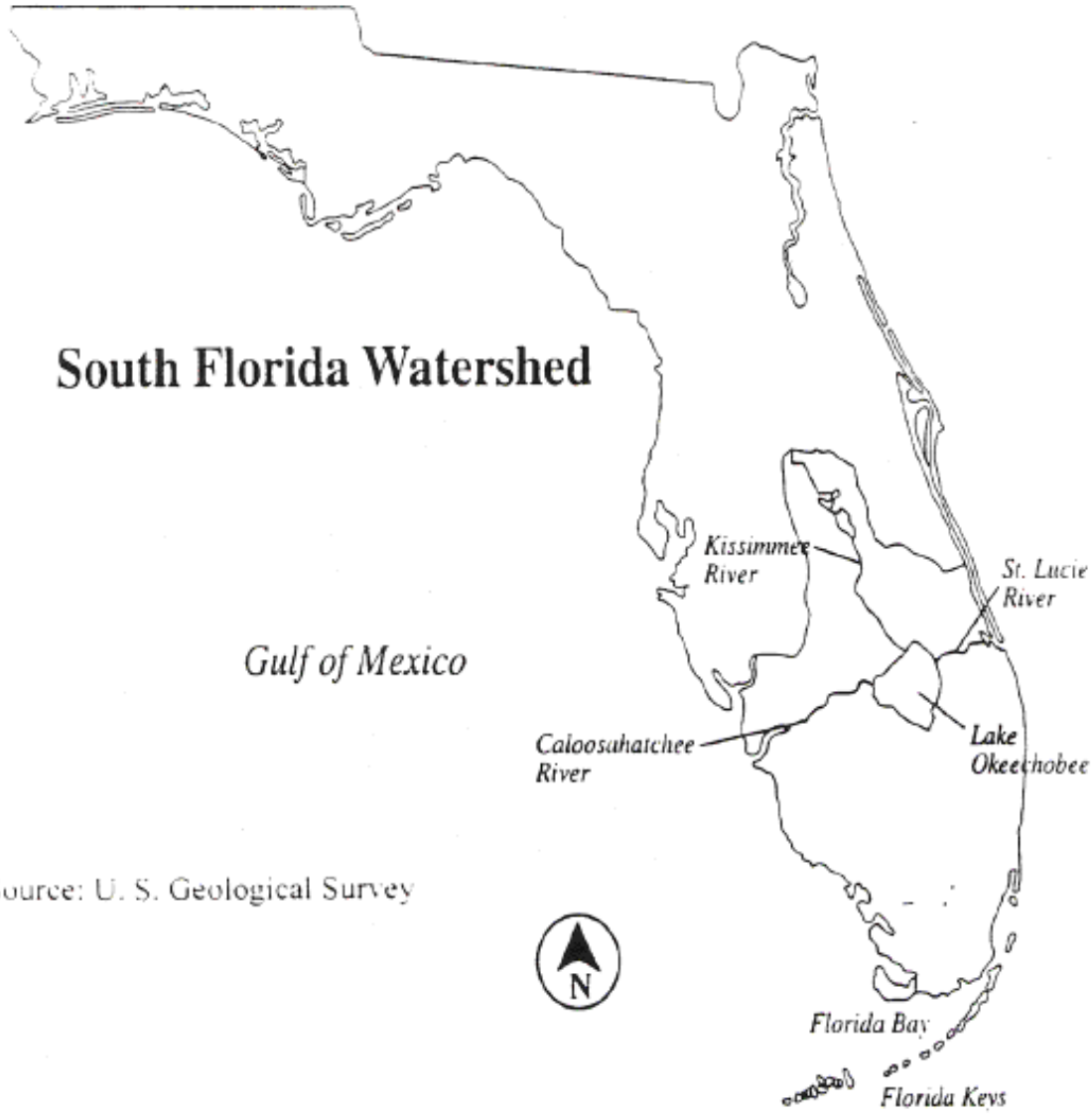
South Florida Watershed



Source: U. S. Geological Survey

FCAT Sample Reading Passage

Protecting the South Florida Watershed

One hundred years ago, the landscape of South Florida was vastly different from what it is today. Wetlands spanned the state from Lake Okeechobee to the Florida Keys. The largest of these areas—the Everglades—covered 2.9 million acres. Part of the Kissimmee-Okeechobee-Everglades watershed, which covered two-thirds of the length of the Florida peninsula, the Everglades was made up of peat soils and tall sawgrass interspersed with tree islands. Seasonal flooding supported an abundance of animal and plant life in the Everglades, as well as in Florida Bay and the Gulf of Mexico. (See map.)

Development during the late nineteenth century and most of the twentieth century dramatically altered the South Florida ecosystem. By 1990, 50 percent of the original Everglades land had been drained. According to studies conducted by the U. S. Geological Survey, an agency of the federal government, drainage of the watershed has resulted in saltwater intrusion into freshwater aquifers. The aquifers are the sources of drinking water for most Floridians. The saltwater intrusion extends six miles inland from the coast in some areas of South Florida.

Disruption of natural flooding in the watershed has also affected mercury levels in bodies of water. Because of mercury contamination, fish from specific areas of South Florida have been banned as a food source. Scientists are studying other effects of mercury contamination, which is suspected of causing the deaths of Florida panthers. In addition, scientists believe mercury contamination may have caused decreases of up to 95 percent in some bird populations.

Plant communities in the Everglades have also been altered by changes in the natural flooding patterns. As a result of drainage and land clearing, exotic plants have invaded habitats and eliminated native plant life. In areas where high nutrients are present due to agricultural fertilizing, cattails are replacing native sawgrass.

Even in the last ten years, decreased water flow caused by human activities has increased the salt content in Florida Bay. Subsequently, increased growth of algae has led to the dieoffs of corals and sawgrasses. Further erosion of coral reefs in the Florida Keys may be occurring because of the injection of sewage into the aquifer.

In a little more than 100 years, humans have reshaped the environment of South Florida. Only in the last thirty years, however, have people begun to question the wisdom of human activities in this region. The consequences of human encroachment include diminishing plant and animal life, as well as contamination of drinking water. It may be too late to reverse most of the effects of human interference in the ecosystem of South Florida. But for the sake of future generations, efforts must be made to restore the natural balance that once existed in this fragile land.

taken from Florida DOE materia

Sample FCAT Questions

1. What element do scientists believe has negatively affected fish, birds, and the Florida panther?
   A. algae
   B. nutrients
   C. mercury
   D. saltwater

2. In the sentence, “The consequences of human encroachment include diminishing plant and animal life, as contamination of drinking water,” the word “encroachment” most CLOSELY means
   A. existence
   B. intrusion
   C. withdrawal
   D. support

Short Response

3. What has caused the increased salt water content in Florida Bay? What have been the consequences increase? Support your answer with details and information from the article.

READ
THINK
EXPLAIN

Short Response

4. How does this author ensure the reliability and accuracy of information contained in this passage? Sup your answer with details and information from the article.

READ
THINK
EXPLAIN

Short Response

5. How does the author use statistics to support the position that efforts must be made to protect the wate

READ
THINK
EXPLAIN

taken from Florida DOE mate

Presentation Rubric

	Excellent.....					.....Needs Improvement
Content - 45%	5	4	3	2	1	0
Define problem	5	4	3	2	1	0
Describe history of problem	5	4	3	2	1	0
Explain why problem exists	5	4	3	2	1	0
Provide map of where problem occurs	5	4	3	2	1	0
Identify UN agencies involved	5	4	3	2	1	0
Discuss how the problem affects development of countries	5	4	3	2	1	0
State relationship to energy resources	5	4	3	2	1	0
Relevant support for argument is provided	5	4	3	2	1	0
Minimum of four topic-related sources; (two print, two online)	5	4	3	2	1	0
Visual - 20%						
Represents chosen environmental problem selected	5	4	3	2	1	0
Accurate use and depiction of quantitative data	5	4	3	2	1	0
Neatly drawn or computer generated	5	4	3	2	1	0
Pictures or illustrations relate to the problem	5	4	3	2	1	0
Size is appropriate for intended audience	5	4	3	2	1	0
Oral Presentation - 25%						
Volume (loud/soft)	5	4	3	2	1	0
Pitch (high/low)	5	4	3	2	1	0
Eye contact	5	4	3	2	1	0
Gestures help convey message	5	4	3	2	1	0
Enunciation; clarity of speech	5	4	3	2	1	0
Appropriate posture	5	4	3	2	1	0
Pacing	5	4	3	2	1	0
Enthusiasm	5	4	3	2	1	0

Self-Reflection - 10%

As a “Ticket Out the Door, explain what you have done to ensure that the Untied Nations will address the problem you identified and take action to correct the problem.