

Question 2

(19 marks)

David notices a species of fish in the Moore River that he hasn't seen before. After some research, he identifies it as a mosquito fish. The mosquito fish was introduced into Western Australia from Central America in 1934 to lower mosquito populations. Unfortunately, mosquito fish will only eat mosquito larvae if there is no other food supply. They prefer to eat juvenile marron and zooplankton, while their only major predators are turtles.

David is worried about the impact mosquito fish will have on the Moore River if they establish themselves. Below is a food web of the river as it runs through his farm.

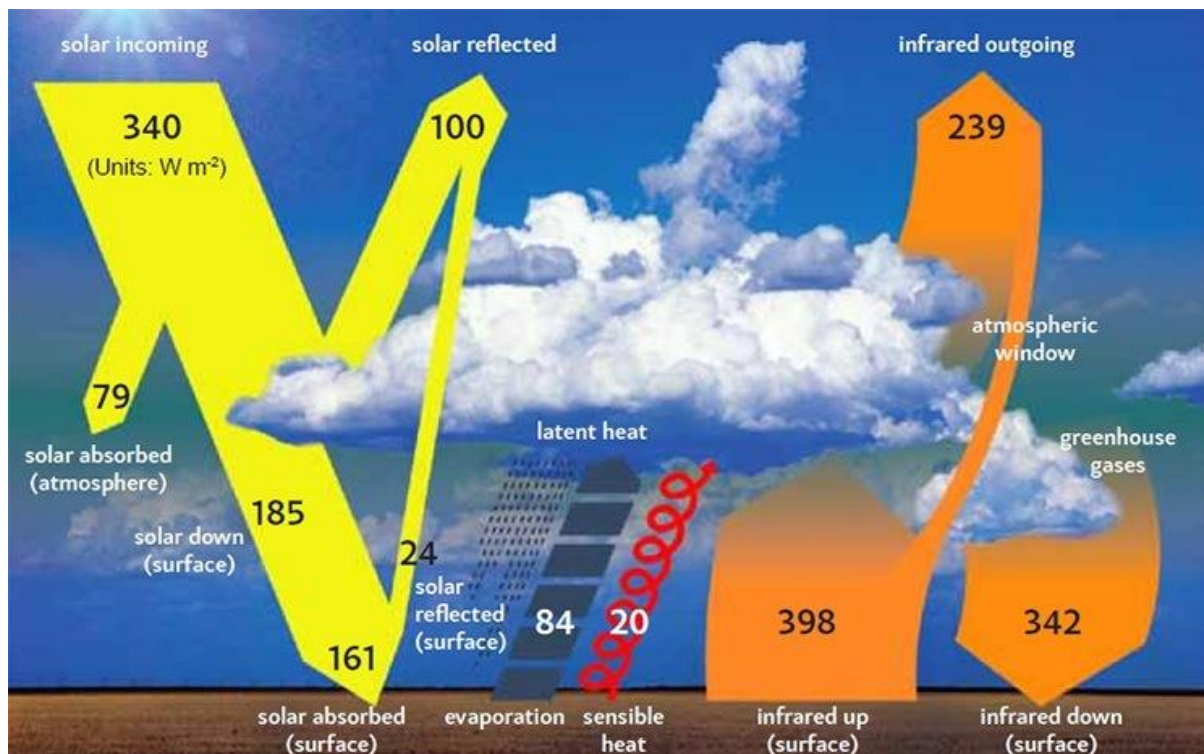
- (f) Name **two** abiotic factors in this river system that might be altered by human activity. Explain how these changes could affect the ecosystem. (6 marks)

One: _____

Two: _____

The water cycle is another biogeochemical cycle. Human activities can alter the water cycle and impact on natural ecosystems.

- (e) Give **two** examples of how humans can alter the water cycle and for each example explain the impact on the natural ecosystems. (6 marks)



Question 5

(6 marks)

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For each of the following possible climate changes, explain the impact they might have on an Australian biological community.

Increased land temperature and a decline in rainfall: _____

Increased acidity of seawater: _____