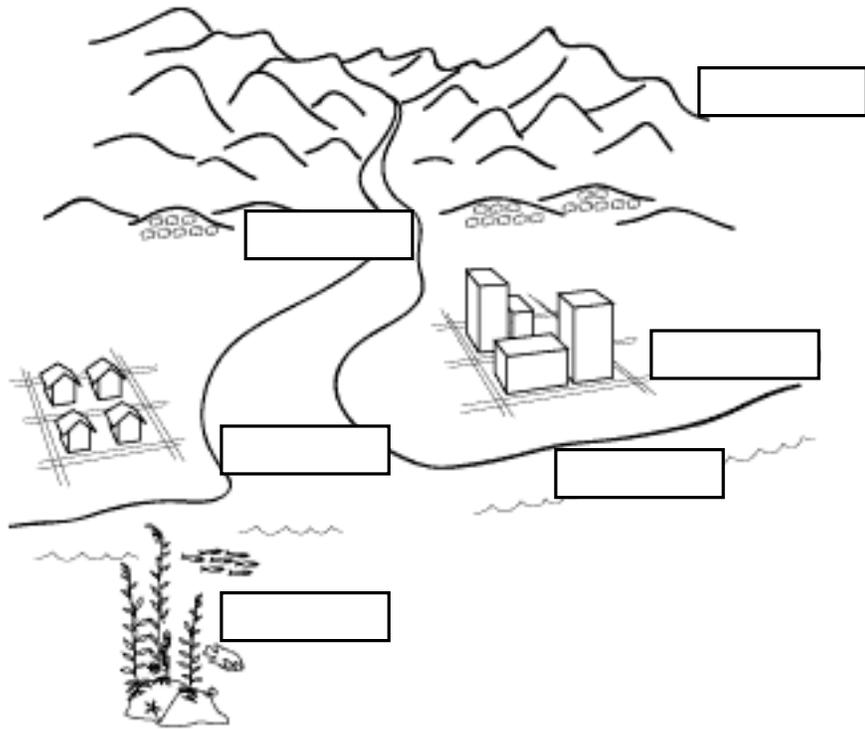


Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_



Label the zones of the watershed pictured above. After reviewing the Natural History section of the UCSB LTER CD-ROM, please answer these questions.

\*\*\*Questions are bonus questions!

### ***Mountains:***

1. What is the zone that is the beginning of most watersheds here in Santa Barbara?
2. A \_\_\_\_\_ is the highest part of a mountain ridge where rain drains to either side of the mountain marking the dividing line of a watershed.
3. What are watersheds usually named after?
4. Do you think more or less rain falls in the mountain zone as compared to the sandy beach?

5. How do the slope, bare rocks, and amount of plants affect the rainfall once rain reaches the mountains?
6. Why are the mountains in Santa Barbara usually dry most of the year? Where does the water go?
7. \*\*\*Can you name three watersheds in Santa Barbara?

### ***Foothills***

8. Where are the foothills?
9. Describe the slope of the foothills. How does that affect the flow of water in this zone?
10. How would you characterize the soil in this zone?
11. In Santa Barbara the foothill zone has some agricultural production. What fruits are typically but not exclusively grown in this area?
12. \*\*\*Surrounding avocado trees there is often bare soil. How does runoff from agricultural land affect the rest of the watershed?

## ***Coastal Plain***

13. How would you characterize the slope and flow of water in the coastal plain zone?
  
  
  
  
  
  
  
  
  
  
14. Why do the streams in the coastal plain meander? Explain the process of how this occurs.
  
  
  
  
  
  
  
  
  
  
15. How have humans affected this zone?
  
  
  
  
  
  
  
  
  
  
16. \*\*\*How do concrete channels affect the flow of water during a storm? How do concrete channels affect the ability of wildlife to live in the stream?

## ***Estuary***

17. What is an estuary?
  
  
  
  
  
  
  
  
  
  
18. What kind of water would you expect to find at the bottom of an estuary? At the top?
  
  
  
  
  
  
  
  
  
  
19. What do plants and animals that live in the estuary have to be tolerant of?
  
  
  
  
  
  
  
  
  
  
20. How is the mouth of the estuary (part of the creek closer to the ocean) different from parts of the estuary more inland?
  
  
  
  
  
  
  
  
  
  
21. \*\*\* What time of year do you expect the water to be freshest in the estuary?

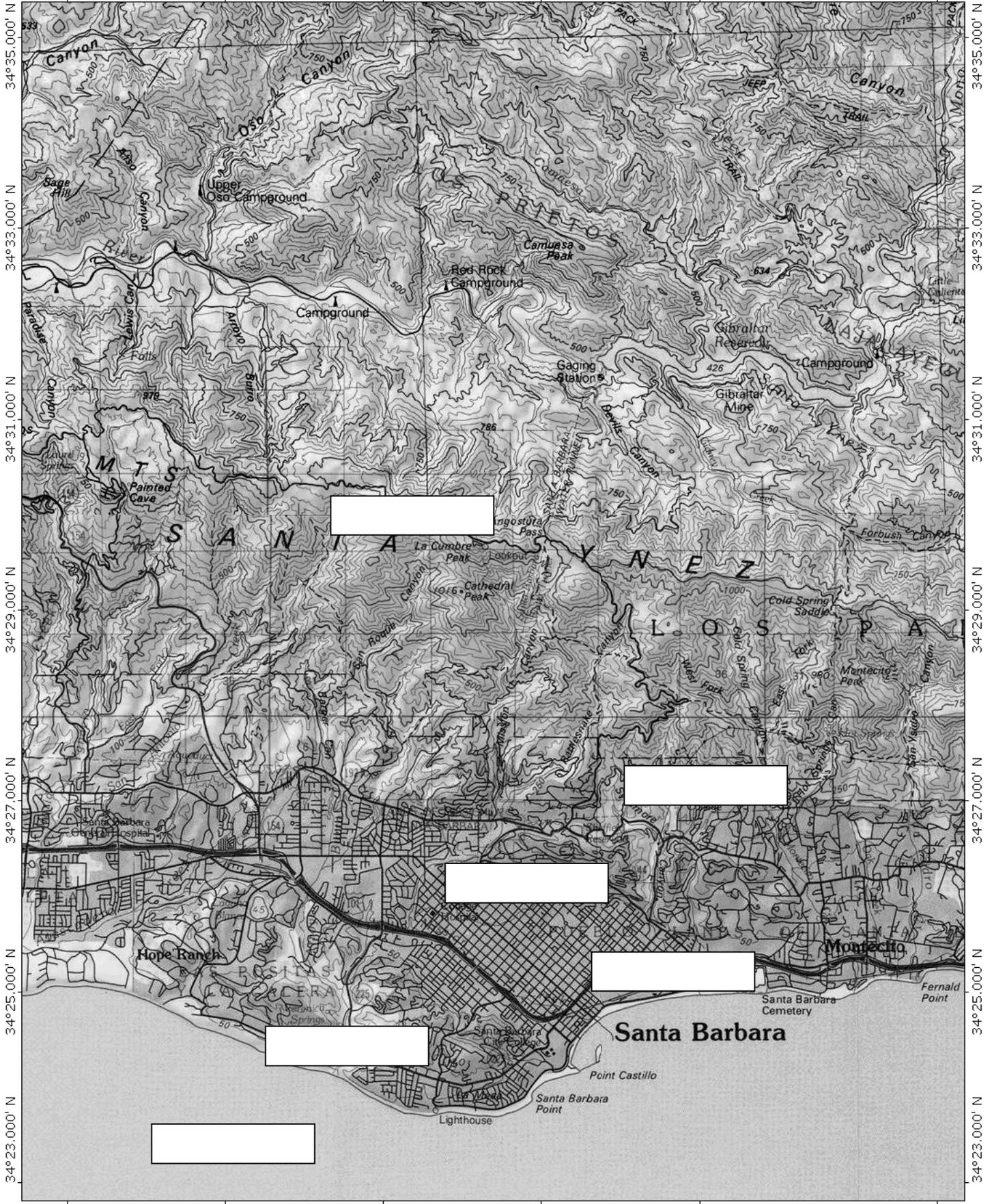
## ***Sandy Beach***

22. Why is the sand in the sandy beach zone constantly changing?
  
23. Where does the sand come from?
  
24. What are the main sources of food for sandy beach animals?
  
25. \*\*\*Why do we have to dredge the harbor but bring sand to Goleta Beach?

## ***Kelp Forest***

26. What is the largest marine plant that exists in the kelp forest?
  
  
  
  
  
  
  
  
  
  
27. After a large rainstorm, muddy water is pushed into the kelp forest zone from local creeks, rivers, and streams. How does this muddy water affect the kelp and other marine organisms in the kelp forest zone?
  
  
  
  
  
  
  
  
  
  
28. \*\*\*How is the kelp forest zone affected by actions that take place in different zones of the watershed? Pick a specific example in a specific zone.

119°48.000' W    119°46.000' W    119°44.000' W    119°42.000' W    119°40.000' W    WGS84 119°37.000' W



119°48.000' W    119°46.000' W    119°44.000' W    119°42.000' W    119°40.000' W    WGS84 119°37.000' W

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