Section 5.3 Assessment Questions

1. Mass movement is the transfer of rock and soil downslope due to gravity.

2. Water triggers mass movement when water fills the pores in sediment, allowing the particles to slide past one another more easily.

4. The slowest type of mass movement is creep.

5. Drainage pipes allow water to drain out of the soil, reducing the chance that a mass movement will happen.

6. A mudflow poses the greatest risk because it moves quickly, while a slump and earthflow move slowly.

Chapter 5 Assessment Questions p. 153-154

8. a) growth of native vegetation on slopes

9. c) a slump

21. Gravity is the force behind mass movements. Other factors that can trigger them are saturation with water, oversteepening of slopes, removal of vegetation, and earthquakes.

24. Freezing expands the water in soil, lifting soil particles. Thawing causes contraction, which allows the particles to fall back to a slightly lower level. Each freeze-thaw cycle moves the particles downhill a short distance.

36. No, removing all vegetation would promote erosion and increase the chance of mudflows and other mass movements. It would be safer to trim the vegetation, leaving it alive with its roots to hold the soil together.