

SOLs covered:

- Ch. 112 section 37 part C 5B (identify source, use, quality, management, and conservation of water)
- Ch. 112 section 37 part C 5D (identify renewable and non-renewable resources that must come from outside an ecosystem such as food, water, lumber, and energy)

Water and trees: how trees can protect our rivers

1. Introduction

- a. Who I am
 - i. Hometown/A&M/Major
- b. What is PINEMAP?

2. Forestry

- a. What is forestry?
 - i. Talk about the start of American forestry (Gifford Pinchot and the forest service)
 - ii. Why it is important to manage timber resources
- b. Products of forest management
 - i. Timber products
 1. Lumber
 2. Paper
 - ii. Ecosystem services
 1. Water quality
 2. Biodiversity
 3. Carbon sink for CO₂

3. Water Cycle

- a. Activity: Pass out paper and ask students to draw a picture of the water cycle
- b. Explain the water cycle
- c. Show diagram of the water cycle

4. How forestry practices effect the water cycle

- a. Explain what a BMP is
- b. Explain what an SMZ is
- c. Explain how ecological services can be affected by forestry practices
 - i. Drinking water
 - ii. Health of watershed systems
 - iii. Managed SMZs act as a “filter” for watershed

5. Show water bottle-BMP activity

- a. Activity: BMP presentation with soda bottles
 - i. <http://lifeisagarden.co.za/articles/soil-erosion-experiment#.VAoQ3vldV1A>
- b. Explain why it is important that we should improve water quality with BMPs (go back to section 4a and reinforce with pictures of SMZs without BMPs)

6. Conclusion

- a. Go over important aspects of the presentation
- b. Reinforce why it is important that we use BMPs.