

Teach Tahoe Video

Four video chapters bring together segments of the Lake Tahoe Report broadcast on KOLO Channel 8 from Reno, with added graphics and questions, for use by classroom teachers with Teach Tahoe lesson plans or their own lessons and units. The narrator is Shelly Purdy. Total length is 32 minutes.

Chapters

1. Watersheds and Water Quality (~12 min)
2. Erosion Control and BMPs (~6 min)
3. Native and Non-Native Plants (~8.5 min)
4. Fire and Defensible Space (~6 min)

Chapter 1: Watershed and Water Quality: What is a watershed? Lake Tahoe Basin is a unique watershed. The lake is losing clarity. Nutrients and sediment are the major pollutants, in addition to sun, animal waste, and toxic chemicals. Citizens measure water quality on Snapshot Day. Algae growing near the shore is a very visible indication of pollution. Added graphics include Secchi depth chart, watershed diagram, and algae growth chart. [segments 001, 002, 003, 008, 013, 014, 015]

1. How many streams flow into Lake Tahoe? A=63
2. What is the name of the one river that flows out of Lake Tahoe? A= Truckee
3. Name six pollutants. A= thermal pollution (sun), pathogens (animal waste), toxins, salinity, nutrients, fertilizer (covered better in associated article 'Where Does Tahoe's Water Pollution Come From?')
4. Name the two pollutants that are impacting Lake Tahoe the most. A=nutrients, sediment

Chapter 2: Erosion Control and BMPs (best management practices): Non-point source pollution comes from many dispersed places but is the major problem at Tahoe. Soil erosion contributes sediments which cloud the lake. BMPs are landscaping which reduce erosion and infiltrate water into the soil. Adding mulch to soil and reducing fertilizer use are positive actions landowners can take. [segments 009, 022, 023, 021]

1. What is erosion? A=soil being washed away by water or blown away by wind
2. What causes erosion? A=Erosion is a natural process, but human disturbance of soil and construction greatly accelerate erosion
3. Why is it a problem? A=Soil washed into the lake clouds the lake with sediment and contribute nutrients to algae
4. What are some solutions? A=capture roof and driveway runoff, build retaining walls, mulch soil, use native plants, use less fertilizer and no phosphates

Chapter 3: Native and Non-Native Plants: California Tahoe Conservancy acquires and restores land. Cold Creek was restored to its natural function as a meadow and health creek. Use native plants or adapted perennials in landscaping. Non-native plants choke out natives and increase erosion. Tahoe Yellow Cress is a threatened endemic plant. Blackwood Canyon suffered from human use and abuse, but is being restored.

1. What is the difference between native and non-native plants? A=Non-native plants came from elsewhere and do not fit into the local ecosystem, while native plants are adapted to local ecosystems.
2. Why should you use native plants in landscaping? A=native plants use less water, usually

don't invade environments, are very attractive, and provide for wildlife

3. Why are non-native plants such a problem? A=They invade new areas and drive out native plants, and often use more water

Chapter 4: Fire and Defensible Space: Reducing dead materials and overly dense trees reduces the chances of a catastrophic fire. Defensible space around buildings is a partly cleared area that slows down fire so that firefighters can protect buildings. The public can help restore burned areas by participating in Forest Stewardship Day and other service learning projects.

1. What role does fire play in creating a healthy ecosystem? A=fire breaks down dead materials so that plant nutrients can be recycled, and reduces the number and spread of plant diseases
2. Why is the risk of catastrophic fire in the Tahoe Basin so great? A=fire has been largely excluded from the basin for about 100 years, resulting in a huge buildup of dead materials and overly dense trees
3. What is defensible space? A=a partly cleared area around buildings that slows fire
4. What can people do to protect their homes and community from fire? A=create defensible space around all buildings, participate in forest restoration projects, support the efforts of local fire departments and land management agencies in reducing fuels by clearing and prescribed fire