PCTA Trail Skills College Curriculum

Field Reference

Course 207. Trail Decommissioning & Wildland Restoration

STUDENT SKILL OUTCOMES:

- Understanding how to stop erosion on old trails.
- Restoring old trails back to nature.
- Safe transport and natural burial of large rocks.
- Proper site closure and transplanting techniques.

KEY TERMS:

Wildland Restoration: the conversion of degraded backcountry trails and landscapes to more natural conditions through a series of tasks, including: scarification, planting rocks, seeding, and transplanting.

Trail Decommissioning: the intentional conversion of a trail that is no longer needed back to nature through a series of wildland restoration tasks.

Abandoned Trail: a trail no longer in use, often eroded for lack of maintenance. May be user-trail or an official system trail that never received proper trail decommissioning.

User Trail: (aka renegade, social, bootleg, non-system, or informal trail); a trail created by the feet of users without proper design, construction, or maintenance. Some present few problems, while others are prone to erosion and damage habitat. A common problem is the development of a net of many such trails in an area, leading to user confusion and excessive impact on plants. In contrast to a ***system trail.***

System Trail: a formal trail with an official name and number, managed by the agency responsible for the land through which the trail passes. Maintenance is scheduled and carried out by professional trail crew or trained volunteers who have officially adopted the trail. In contrast to a user trail.

Renegade Trail: (aka illegal trail) a trail built by individuals and groups without the permission or guidance of professional land managers. Such trails often are poorly designed, constructed, and maintained, leading to erosion and damage to wildlife, plant, and archeological resources.

Scarify: (aka tilling or human-powered rototilling) in a wildland restoration project, the loosening of compacted soil to allow intentional and natural seeding to occur.

Planted Rock: (aka iceberg or dummy rocks, gargoyles) a large irregular-shaped rock relocated and partially buried in a wildland restoration project to discourage further use of the area and/or reduce erosion.

Rock Shopping: the thorough search for quality rocks for construction for walls, water bars, check dams, etc. Generally the search is uphill or across the side slope, for ease of transport, since quality rocks will be larger than one person can carry.

Fall Line: the shortest and steepest way down a hill, as indicated by a clinometer, water, or a rolling ball. Trails that follow the fall line are likely to erode badly and are impossible to drain. Ideally they should be relocated to follow the side slope at a grade less than 10% or have check dams installed to slow further erosion.

Check Dam: (aka check step) a log or row of rocks perpendicular to a gullied fall line trail, embedded in both banks, to slow the rate of water erosion. If several are constructed on a horse trail, they should be 6', 12, 18', or 24' apart to approximately match the gait of a horse.

Transplanting: in wildland restoration refers to digging up plants for replanting in a nearby impacted area such as a closed campsite or trail. May also refer to planting potted native plants from a nursery, though this really us "planting."

Nurse Log: a partially rotted log on which native plants have started to grow. Sometimes relocated as part of a wildland restoration project. Nurse logs are common only in moist forests.

Borrow Pit: a hole excavated to obtain mineral soil for a trail project. Ideally it is in an inconspicuous location and filled in with natural debris when no longer being used.

KEY CONCEPTS:

1) Safety Documents: Pre-trail work paperwork:
   - Personal Protective Equipment (PPE), Job Hazard Analysis (JHA), Tailgate Safety Session (TSS), Emergency Action Plan (EAP)
2) Trail Decommission:
   - Jumbo, natural-looking drainage & check dams.
   - Scarify compacted tread.
   - Plant large rocks as natural-looking check dams.
   - Import fill to repair gullying.
   - Local/native transplants uphill of rocks.
   - Collect, scatter & rake in native seed, if available.
   - Import & scatter organic debris.
   - Make invisible or install closure signs.
3) Wildland Restoration:
   - Develop a plan: what is to be restored? What is available? Drainage issues?
   - Basically same steps as Trail Decommissioning, with a site plan
   - Signage is likely to be useful
4) More on Transplanting and Seeds:
   - Consult with local managers about best practices
   - Match plants to the site conditions (e.g., dry, wet etc.)
   - Tap-rooted plants don't transplant well
   - Grasses, rushes, and sedges transplant easily
   - Woody plants may offer the most disguise to impacted areas
     - Dig hole as wide as the drip line
     - Water in the transplant, eliminate air pockets
   - Return later to water the transplants if possible
   - Scatter ripe seeds in receptive soils
     - Collect from local native plants or
     - Local managers may have access to appropriate seeds

Figure 1. Large check dams, over the years, will help this gully fill in. These check dams need an apron of loose rocks down from each log to prevent water scouring. Scarifying, planting rocks and transplants, adding fill, seeds, and debris will speed the process. (IMAGE COURTESY OF THE USFS)

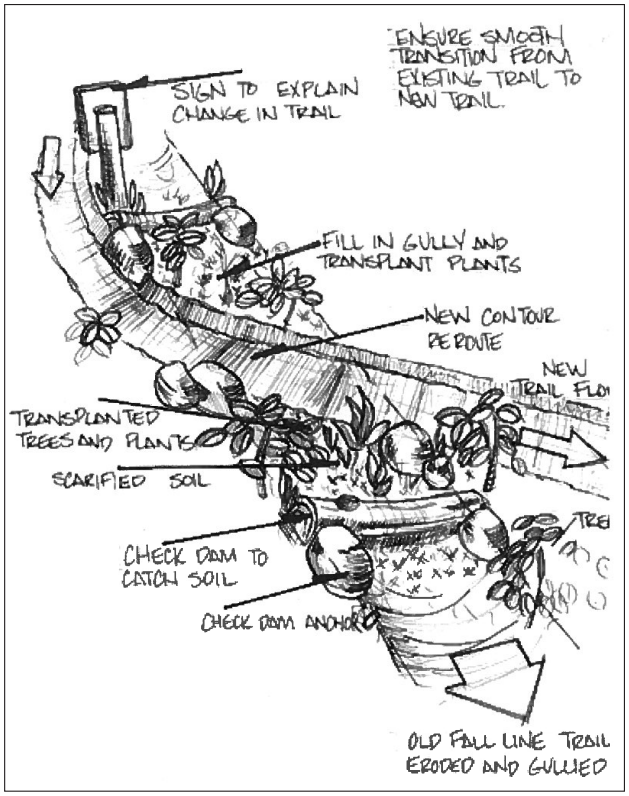

Figure 2. Plan for decommissioning an abandoned trail. (IMAGE COURTESY OF IMBA)

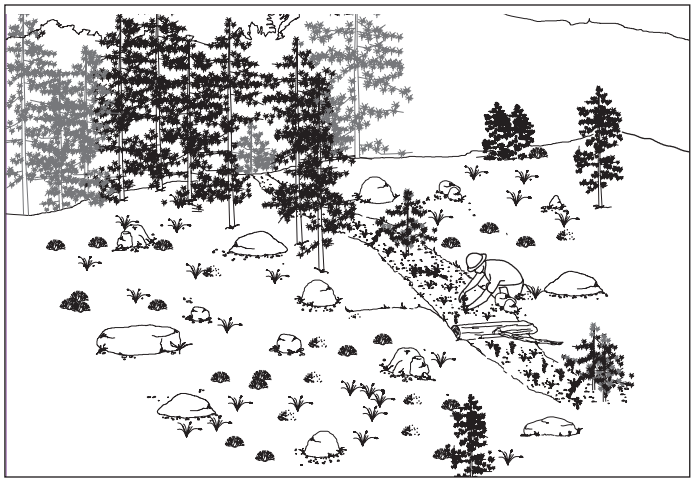

Figure 3. Decommissioned trails and campsites need to be blocked off and restored effectively, and with sensitivity. Plant rocks, small trees, native grasses and other plants to look like the surrounding area. Use shrubs or deadfall to fill the openings. (Image courtesy of the USFS)

Figure 4. Transplants on steep slopes must be properly placed for plant success. (Image courtesy of the SCA)

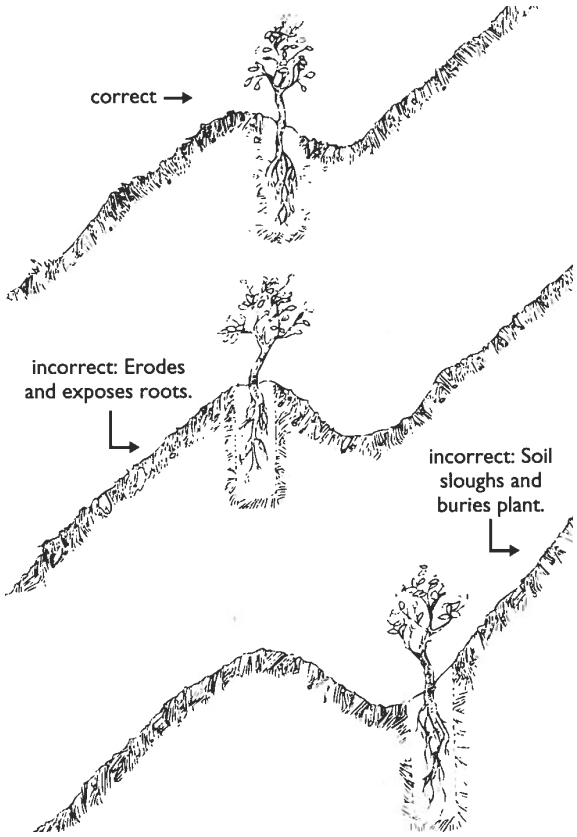

Figure 5. Detailed before and after drawings of restoration sites (along with photos) allow monitoring success of the project and survival of specific species of transplants. (Image courtesy of the SCA)