Evergreen Trail School

Making Washington a Better Place to Ride

Preston, WA & Tiger Mt. Sat, April 9, 2015

• **8-11:45am**: Classroom

• *11:45-12:45pm*: Lunch

• *12:45-4pm*: Trail Work





Classroom Agenda

- Introduction
- Planning
- Design
- Construction
- Maintenance
- Wrap-Up







Sustainable Trails. Rider Powered. www.evergreenMTB.org

501 (c) 3 non-profit with 8,000+ followers

Mission: Evergreen creates and protects sustainable mountain biking opportunities in Washington.

Advocacy, Trail Building & Maintenance, Education & Recreation

5 Regional Chapters:

- Central/Wenatchee
 - Methow
 - East/Spokane
 - Cold Creek
 - West Sound
 - Orcas Island





Colonnade



- ground breaking Oct 2005
- P1 opening Sept 2007
- P2 opening Sept 2008



- First brushing WP Sept 2008
- P1 opening May 2010
- P2 opening June 2012



- P1 Hansen Ridge opened Oct 2009
- P2 started summer 2011

Tiger Mt



- 1st new MTB trail in 20 years started July 2011
- ETS Trail opened Sept 2012
- Silent Swamp and OTG started

Swan Creek



- Contract signed Jan 2013
- 1st trail to open summer 2013





Tiger Mt & Raging River State Forests





















Chapters

Stewardship





Sustainability



Trail Sustainability

Impact on User Community Speed, sightlines, conduct, SOCIAL **Construction Impact** Clearing & grading, soil compactⁿ, water quality, wildlife EQUITABLE BEARABLE **SUSTAINABLE** ENVIRONMENT **ECONOMIC** VIABLE Transplanting, clean-up, thinning, invasive removal,

User Impact

Erosion from skidding or

fall line trail, shortcutting,

trampling, braiding, litter

½-Rule, outslope, grade

reversals, design & flow,

materials, PNW++

displace negative activity. Preserve & protect 99.5% of the forest forever (5 mi ST in

 $100 \ acres < 0.5\%$

conflict, crowds, trail rules

Impact on Broader Community

Noise, privacy, parking, traffic

Build community, healthy outlet, family activity, youth involvement, improve neighborhoods, displace negative activity, indirect revenue, usage!

Long-Term Cost

Longevity and long term infrastructure and maintenance costs

Donations, volunteers, sponsorship revenue, event revenue and community ownership

Video#1: Intro to Trail Work with Evergreen



 http://www.youtube.com/watch?v=nk2nRCugKfg&list=UUvUd qlwNzfzs7z26phteTMw&index=1 Video by Chris Wojcik





Building & Maintaining Sustainable Trails

Planning

- Users & User-Experience
- Concept Maps
- Resources & Funding
- High Level Schedule
- Permission & Permits
- Agreements
- Public Outreach
- → High Level Trail Plan

Design

- Pin-flagged final trail alignment
- Detailed maps of trail, features, construction plan and POIs
- Documentation++
- Schedule & budget
 - → Trail Alignment
 - → Project Plan

Construction

- Clear Trail Corridor
- Full bench construction
- Drainage & Armoring
- Dealing with Running Water
- Crossing Flat/Wet Areas
- Tools & Work Safety
 - > Trail Opening

Maintenance

- Brushing & clearing
- Drainage problems: ruts, erosion, puddles, mudholes, widening
- Steep / Fall-Line Trails: ruts, erosion, steps, water bars, check dams
- Trail Creep
- Dealing with Clay
- Re-routes



Bike-Friendly Techniques



PNW Techniques



Tools, Special Considerations

Planning

Planning

- Objectives & Deliverables
- User-Experience
- Concept Maps
- Resources & Funding
- High Level Schedule
- Permission & Permits
- Agreements
- Public Outreach

Design

- Scouting, control points, flagging
- Trail Alignment
- Detailed Maps
- Grades, Half-rule, Specs, Flow, Features, Sightlines, Drainage
- Documentation++
- Schedule & budget

Construction

- Trail Corridor, Outslope, Full Bench, ½-Bench, Switchbacks, **Grade Reversals**
- Dealing with Running Water
- Crossing Flat/Wet Areas
- Tools & Work Safety

Maintenance

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Bike-Friendly Techniques



PNW Techniques



Tools, Special Considerations

User Experience

Target Styles, Users & Skill Levels







User Experience

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Focus on User Experience Through the Process

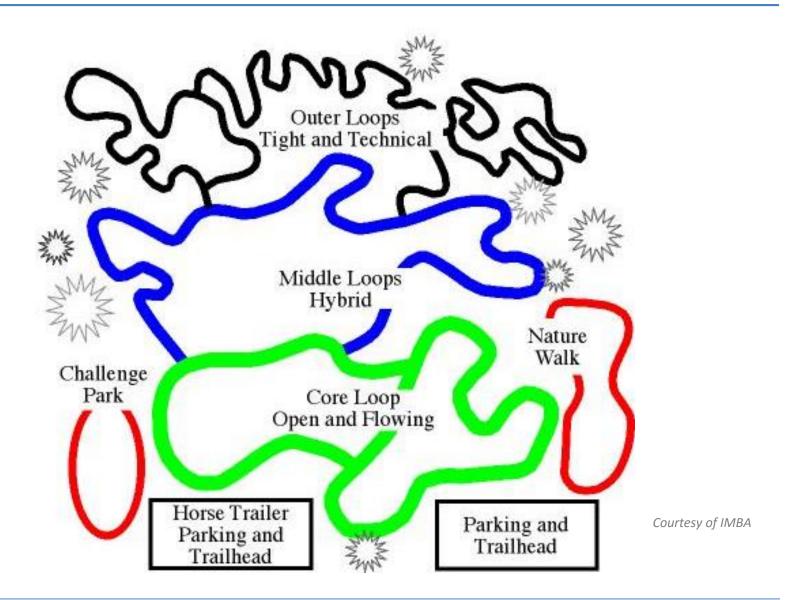
Constant pressure to change

Connections

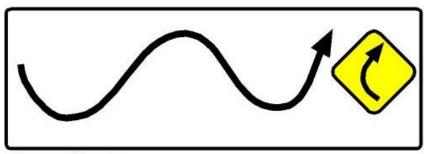
- Other parks, trails, trail networks
- Towns, transportation centers
- Residential neighborhoods
- Parking, facilities
- Green spaces



Stacked Loop System



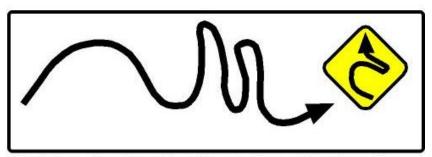
Trail Flow



Open and Flowing



Tight and Technical



Poor Flow - abrupt transitions from one type of flow to another.

Courtesy of IMBA

Volunteers: Building Community while Building Trails



Empowering Volunteers

An option for building better trails and a stronger community!

Community: A group of people living together in one place, especially one practicing common ownership

