

# **Project Plan for Wolf Branch Trail in Bent Creek**

## **General description of trail and planned project:**

Wolf Branch Trail is located in Bent Creek Experimental Forest near Asheville NC. This trail measures approximately 6218 linear feet (just over a mile) and is the case with many trails in Bent Creek (and Pisgah) this corridor started life as a series of timber extraction routes. Many old logging roads lacked good design principles and therefore have sustainability issues when adopted as recreational corridors.

Pisgah Area SORBA (Southern Off Road Bicycling Association) desires to adopt this trail for a very large scale work project on National Trails Day. PAS has held 2 work days on this trail in the past year and seeks to continue the work with an all out effort to complete the trail and bring it up to current sustainable standards.

Wolf Branch Trail is a very heavily used trail in a popular trail system. This trail has close proximity to a developed recreation area (Lake Powhatan Recreation Area- campground and picnic facility) and several developed trail heads (Rice Pinnacle, Hard Times and Ledford Branch). Due to a high level of use and relationship to surrounding USFS facilities, the Wolf Branch Trail should be classified as a Class 3 Trail- Developed/Improved.

The trail is open to foot travel and mountain biking. Based on observations during many site visits, the breakdown of trail usage is as follows:

- 60+% mountain bike traffic ranging from very beginner cyclist to experienced
- 30% trail runners
- 10% exercise walkers and dog walkers

Because of the high usage by mountain bikers, the designed and managed use for this trail should be cycling using the USFS Trail Planning and Management Fundamentals Trail Classification System.

Wolf Branch Trail is currently rated Easy as shown on several maps including the USFS Bent Creek Trail System map and the Trails Illustrated Map for Pisgah Ranger District. Because of poor design and heavy usage, the trail has eroded to the point that it no longer serves as an Easy rating trail making risk management a concern.

## Goals/Objectives for Trail Project:

Major trail projects should have well defined objectives to help define the scope of work. For the Wolf Branch Trail project there are many goals/objectives:

- Improve the sustainability of this trail through better water management and hardening tread surfaces where needed.

- Through sustainable trail construction practices, minimize long term impacts related to the trail on the surrounding natural resources (water quality, wildlife habitat etc.).

- Provide for better risk management strategy by providing a trail experience that better reflects its difficulty rating.

- To accommodate more advanced mountain bikers, offer numerous optional challenges just off main tread in the form of Technical Trail Features (TTFs). This could include: log rides, rock drops, rock gardens and other features that are well designed and built with sound resource and risk management principles.

- Improve sight lines in several places to help reduce potential use conflicts between user groups. This will be accomplished by opening up the radius of several sweeping turns and reducing the blind turn effect of the trail in several locations.

- Generally enhance the user experience for all use groups by making this feel more like a purpose built single track trail (PBT) and less like a trail on a road (Troad). This can be accomplished by adding trail undulations and meanders (trail UM) which will also help improve sustainability. PAS will perform a road to trail conversion using the full road matrix to locate the

trail in the ideal location on the roadbed, and using good landscaping techniques.

-Replace and add needed wood structures elevating the users above water crossings and sensitive slopes. This will help reduce sedimentation in creeks and waterways and provide for a more interesting trail experience.

## Construction Plan:

Wolf Branch Trail Project is a joint venture between the following parties:

-USFS- trail and land manager for all trails in Bent Creek

-Pisgah Area SORBA- organizing and providing the labor force

-Blue Ridge Bike Club- monies raised through the sale of maps will provide needed funding for materials

-Trail Dynamics LLC- providing leadership, the overall project plan, equipment for the project and staff (pro bono) of trail professionals to lead major work day efforts.

This project will begin on Friday June 1 with Trail Dynamics working a full day doing machine work and planning of wood structures. National Trails Day is Sat. June 2 and the goal will be to have 40+ participants working with the TD staff to complete various aspects of the project. All participants will be asked to sign a sign in form and required to wear appropriate PPE for the different tasks (including bike helmets for head protection).

All needed sawyers for the project will have current USFS requirements (chainsaw cert, First Aid and CPR). All equipment operators will be Trail Dynamics staff members or other SORBA members trained in machine operations (safety, respect for landscape, working in and around others etc).

Volunteers will be broken down into small groups with experienced crew leader for each group. Each crew will be given a specific task or section to complete for the days project and some crews may have multiple tasks depending on the size, scope and complexity on any given section of trail.

A wide range of needed tasks include: minor corridor clearing, one major tree removal, tread improvement, water management through rolling grade

dips and other BMP techniques, rock armoring on steeper tread, and design construction of wood structures (bridges, puncheons, and other elevated wood structures (EWS).

## Project specifics by tread locations (station numbers):

0000- Begin project at junction of FS Rd 479-E

0000-+1409- This section of trail has received recent tread-work by SORBA volunteers (2 days in 2006) and is in relatively good condition. It could serve as a sample of a road trail to trail conversion and set the tone for the rest of this project. There are added undulations and meanders to improve sustainability and use experience and several fun TTFs were added as options for advanced mtn bikers.

+1409-Large tree across trail (users can go under) measuring 19-20" caliper in some places. This is a white oak and will make for a good long log ride when bucked down. Locations for optional log rides (TTF) will be close to current location due to difficulty of moving logs after cut.

+1550- Functioning existing drain, needs a little enhancing to improve function.

+1575-1630- Move trail tread left (within road matrix) to improve drainage by locating tread closer to positive outslope. Scarify old tread (compacted tread) and perform full restoration with plantings and landscaping.

+1745- Functioning drain, no work needed

+1782-1857- Move trail left (within road matrix) to improve drainage and increase sight lines (open radius of sweeping turn). Perform full restoration of old trail bed.

+1900-1932- Move trail left 5-10 feet to improve drainage by locating tread closer to positive down slope.

+1992-2089- Move trail left to improve drainage

+2168-2272- Move trail left to improve drainage

+2392-2460- Badly eroded climbing turn. Re-grade and improve drainage and tread conditions.

+2475- Drain dip with lead off ditch Rt.

+2545- Rolling Grade Dip (RGD)

+2628- RGD

+2696- RGD

+2779- RGD

+2790- Begin badly eroded section (continues to Station # +2975) Remove wood check damn/waterbars (being avoided by all trail users) Re-grade to improve tread conditions.

+2872-2975- Rock armoring for durability needed, with optional lines for easy and difficult.

+2975- Junction with Ledford Branch Trail, Wolf Branch makes a 90 degree turn down towards small creek crossing (Wolf Branch Creek).

+3016- Drain dip with lead off ditch left

+3065- Small bridge in state of serious disrepair (not meeting design intentions and providing risk management concerns). Remove bridge properly dispose of bridge materials (native materials dispersed in forest, man made materials removed from forest).

+3016-3094- Design and build a new bridge and integrated Elevated Wood Structure to protect water quality. EWS would have short spans for strength and eliminate the need for major engineering. Estimated height off water would be less than 3 feet and thus no railing needed. This structure will be designed and built by TD staff and experienced carpenters.

+3116- Knick draining water to left of trail.

+3118-3186- Move trailbed right 5-10 feet to open radius of turn, improve drainage opportunities and corral users (better focusing impact). Perform full restoration of current tread location.

+3239-3260- Move trailbed left 5 feet to improve drainage.

+3335- RGD

+3379- RGD

+3435- RGD

+3505- RGD

+3556- Begin enclosed Laurel tunnel. The intent on this section (to end of project area) is to maintain the tunnel feel with as little corridor clearing or disturbance as possible.

+3619- RGD

- +3690- Knick
- +3730- Drain Dip
- +3812-Knick
- +3878- Knick
- +3956- RGD
- +4013- RGD
- +4081- RGD
- +4097- Begin badly eroded cupped section.
- +4097-4190- Elevated Wood Structure (EWS) to elevate users and eliminate soil disturbance. Mini check dams and organic material under EWS to slow water flow.
- +4210-4270- Rock armoring needed on approach to creek crossing.
- +4275- Remove old log bridge and dispose of materials appropriately. Build new bridge: 12'x4'. No railing needed due to low height off water and ground level. Improve rock armored crossing offering an alternative to bridge for advanced riders.
- +4315- Knick
- +4359- Knick
- +4403- Remove logs from main trail. Consider a better built log pyramid as an optional TTF. Restoration work on go around trail to reduce impacts to trailside vegetation.
- +4433- Drain mud holes.
- +4433-4458- Elevated Wood Structure (EWS) to elevate users above poorly drained area.
- +4508- Knick
- +4564- Remove small bridge and properly dispose of bridge materials. Build new bridge in this location: 10'x4', no railing needed to lack of height.
- +4663- Knick
- +4740-Knick
- +4821- Remove log ride. Log is blocking water, not allowing it to get off trail and log consist of rotting white pine (poor choice for a log ride).
- +4887-Knick

- +4960- Knick
- +5054-Knick
- +5205-RGD
- +5290-RGD
- +5340- Drain mud hole, knick.
- +5513-RGD
- +5564-RGD
- +5649- Drain dip/knick
- +5709-Drain dip/knick
- +5836-RGD
- +5915- RGD (location not marked on ground)
- +6030-RGD
- +6115-RGD (location not marked on ground\_
- +6210- Mud hole, difficult to drain. Build puncheon/EWS
- +6218- End of project

Unless otherwise noted, all above tasks are marked on ground including suggestions for slight realignments (always within Area of Disturbance Zones- ADZ). All stations/tasks are marked with pink Trail Dynamics pin flags.

A pre work walk through has been scheduled between USFS trails staff John Brooks and SORBA project coordinator Woody Keen. The day/time for this meeting is May 18<sup>th</sup> at 9AM, other interested parties are invited to join us. The meeting place is set for Rice Pinnacle parking area.

Respectfully submitted on May 7 2007 by:

Woody Keen

SORBA- Trail Education Advisor

President- Trail Dynamics LLC

President- Professional Trailbuilders Association

Board of Directors- IMBA

Certified NC Clear Water Contractor

