

Black Rock Unit – Trail Management Plan



"STEWARDSHIP IN FORESTRY"

INTRODUCTION AND OVERVIEW

The Black Rock Unit of the Oregon Department of Forestry is located approximately 3 miles west of Falls City, Oregon comprising around 1,000 acres. This Management Plan details the working arrangement and trail standards set forth in an "Adopt-A-Trail" Agreement between the Oregon Department of Forestry (ODF) and the Black Rock Freeride Association (BFA).

The recreation activity termed "free ride mountain bicycling" has been evolving ever since the first "mountain bike" left the pavement. The International Mountain Bicycling Association (IMBA) provides a thorough description for this unique style of trail riding and is included as Attachment B to this management plan as a way to provide insight into what is also a growing recreational activity.

IMBA also recently adopted the following general guidelines when considering the development of "freeride trails". The Oregon Department of Forestry and Black Rock Freeride Association also adopt these guidelines for trails in the Black Rock Unit:

To Minimize Liability:

- 1.) Mark trails clearly according to ODF Sign Design Manual. Trailhead signs that alert visitors to technical challenges are helpful and may reduce liability.
- 2.) Build technical trail features to accepted standards. (As described in Section 6.0) Both natural and non-natural additions to trails must be durable, predictable and designed to minimize injuries when trail users fail to negotiate them properly.
- 3.) When constructing or implementing natural or manmade technical obstacles, make sure to offer easier alternate routes that avoid the feature.

To Maximize Safety:

- 1.) Don't surprise trail users with unexpected technical trail features. Challenging trails should be properly signed. Make sure that people can see technically challenging trail sections well in advance. Don't put advanced technical challenges on trails designed for beginners or intermediates.

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- 2.) Make the entrances to technical trail features difficult. This will prevent less-skilled riders from overreaching their abilities.
- 3.) Designing proper flow into trails is important. Abrupt transitions from open and flowing to tight and technical may increase the chance of injuries.
- 4.) Offer technical riding skills clinics. In addition to riding techniques, include tips on responsible, low-impact, safe riding.

To Reduce User Conflict:

- 1.) Maintain clear communication among the club, freeriders, ODF, Camp Tapawingo, other adjacent landowners and other trail visitors to keep relations positive.
- 2.) Work to develop a varied trail system that disperses visitors and reduces user conflict.
- 3.) Produce accurate trail maps and post these at the trailhead. Also provide trail signage that give visitors a clear sense of what to expect.
- 4.) Provide a purpose-built freeride trail that is single-use. This type of trail will be unsuitable for horse use and may not provide an enjoyable experience for hikers.

To Improve Communication and Partnerships:

- 1.) Freeriders should be encouraged to participate in mountain bike club activities and decision-making.
- 2.) By consulting with freeriders and incorporating their suggestions into trail management decisions, the club and ODF can develop a trail system that has broader appeal. This effort will also reduce unauthorized trail construction.

MANAGEMENT PLAN

1.0 Purpose/Scope:

1.1 **Purpose:** The purpose of this document is to establish a procedure to ensure that trails and man-made technical features are built in a manner that is environmentally responsible, that they create no hazards that are not inherent and understood as common to the sport of mountain biking, that they are properly marked to allow riders to make informed decisions as to the appropriateness of risk and to ensure long term sustainability. To fulfill this purpose, the following will be regulated;

1.1.1 **Where:** Where and how trails and man-made technical features may be built.

1.1.2 **How:** The standards to which trails and man-made technical features are built.

1.1.3 **Requests:** The submission of and approval thereafter of solicitations for new trails and man-made technical features.

1.1.4 **Approval:** The methodology by which completed trails and man-made technical features are approved for use.

1.1.5 **Maintenance:** The standards for long term maintenance of trails and man-made technical features.

1.2 **Scope;** This document applies only to the Black Rock Unit near Falls City managed by the Oregon Department of Forestry.

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2.0 Definitions:

- 2.1 **Black diamond riding:** High risk, high skill mountain biking emphasizing legal and responsible trail use.
- 2.2 **District:** - The West Oregon District of the Oregon Department of Forestry (ODF), District headquarters located in Philomath.
- 2.3 **District's Representative:** - The District's representative is an individual or individuals assigned by the District Forester and given the authority to make decisions specified in this management plan.
- 2.4 **Exposure:** Exposure refers to the condition in which the terrain adjacent to the trail is not coplanar with the trail (not the same height).
- 2.5 **Exposure height:** Exposure height is the largest vertical distance from the trail to the lowest point up to 3 ft adjacent to the trail.
- 2.6 **Log Jam:** Log jam refers to stacking of logs or branches on either side of a log, rock or other obstacle to assist in negotiation of the obstacle.
- 2.7 **MMTF:** - (Man Made Technical Feature) is a man made obstacle requiring negotiation
- 2.8 **MMTF height:** - The largest distance between the point where MMTF and tire meet and the lowest point on the ground up to 5ft adjacent to the MMTF and tire contact point.
- 2.9 **Permanent attachment:** Attachment by such means as nails, ropes, screws, etc... such that separation requires removal or destruction of the attaching means.
- 2.10 **Representative:** Representative when used in this document refers to the District's representative.
- 2.11 **Singularly applied load:** A singularly applied load refers to load or force applied at a single contact point between the applying force and (usually) a construction.

3.0 Associated Documents:

- 3.1 **Whistler Trail Standards:** Attachment A and other trail design standards are based on this document and provides a reference for implementation and revision of this management plan.
- 3.2 **International Mountain Bicycle Association's (IMBA) Building Better Trails:** The general approach to trail development in the Black Rock area is based on guidelines and recommendations adopted by IMBA. A link to this reference material is titled "Trail Building" under "Resources" on the IMBA homepage: www.imba.net

4.0 Hierarchy of Authority:

- 4.1 **District:** The final authority for matters concerning trails and trail building in the Black Rock Unit belongs to the District Forester, West Oregon District, ODF.
- 4.2 **District's Representatives:** The District Forester may appoint representatives in his/her behalf. These representatives will possess the authority of the District as prescribed by this plan. Notwithstanding the aforementioned, the District Forester may grant or deny any special authority to the representative to act in his or her behalf.
- 4.3 **Trail Manager:** Each proposed trail will be assigned a trail manager – typically the person proposing the trail project. The trail manager is responsible for gaining all required approval for the trail and any MMTFs thereupon.

5.0 Trail Life Cycle:

5.1 Preliminary Approval

- 5.1.1 **Trail Map:** A proposed trail map shall be submitted to the District's representative. The map shall include the following features.
 - 5.1.1.1 Proposed trail name:
 - 5.1.1.2 Proposed technical rating:
 - 5.1.1.3 Rough sketch of trail:

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- 5.1.1.4 GPS coordinates: GPS coordinates shall be provided on the map for the trail beginning, the trail termination, and any intersection points with existing trails.
 - 5.1.1.5 Bodies of water and stream channels in path of trail.
 - 5.1.2 Volunteer list: A signature list of volunteers shall be compiled and submitted with the trail map. The list of volunteers shall conform to the following:
 - 5.1.2.1 Contact Information: Name, mailing address and telephone number shall be provided.
 - 5.1.2.2 Certification to perform work: Each volunteer must fill out a form establishing permission to perform work provided by the District.
 - 5.1.3 Representative's Preliminary Approval: The representative will approve or reject the proposed trail.
 - 5.1.4 Assigning of Trail Manager: Upon approval of the proposed trail, the representative will assign a trail manager from the list of volunteers.
 - 5.1.5 Marking the Trail: The proposed trail shall be marked at maximum intervals of 100ft and at significant locations. The color blue shall be used.
 - 5.1.6 Walking the trail: Upon completion of trail marking, the trail manager will schedule a walk-through with the District's representative.
 - 5.1.7 Approval of District: Upon the representative's satisfaction, the proposed trail will be submitted to the District for approval.
 - 5.1.8 Notification: The trail manager will be notified as to the decision of the District. If the trail is approved, building may begin immediately unless otherwise directed.
- 5.2 **Build**: Upon approval of the District, trail construction may begin. Trails will be built to standards established within this document.
- 5.3 **Final approval**: Upon completion of the built trail, the trail manager shall gain approval for the trail.
- 5.3.1 Submission of final trail map: Upon trail completion the final trail map shall be submitted to the representative for approval. In addition to the GPS coordinates required in the preliminary map, coordinates shall be provided for every ½ mile of trail and for each level 4 or higher MMTF.
 - 5.3.2 Final walk-through: A final walk-through shall occur between the trail manager and the representative in which the representative approves the trail either with or without discrepancies. If the trail is approved with discrepancies, the discrepancies must be corrected by the first maintenance cycle.
- 5.4 **Maintenance / Alterations**:
- 5.4.1 Annual Maintenance: The trail manager will be responsible for annual trail maintenance. Maintenance may be performed from late fall to early spring. A report shall be submitted to the District's representative that the maintenance has been done with a brief description of the work completed. Trail maintenance should include:
 - 5.4.1.1 Removal of living obstructions:
 - 5.4.1.2 Restoration of trail to current technical rating:
 - 5.4.1.3 Repair of MMTFs:
 - 5.4.1.4 Repair and bypass of areas of erosion:
 - 5.4.2 Special Maintenance: The District or the District's representative may require special maintenance to be performed on a trail to address erosion or safety concerns. The trail manager has 30 days to perform the required maintenance. A report shall be submitted to the District's representative that the maintenance has been done with a brief description of the work completed.
 - 5.4.3 Alterations requiring approval: Alterations to a trail shall follow the same procedure for approval as a new trail if the alterations does any of the following:

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- 5.4.3.1 Change the technical rating of the trail:
- 5.4.3.2 Cross bodies of waters:
- 5.4.3.3 Cross another trail:

5.5 Decommissioning:

- 5.5.1 Reasons For: A trail may be decommissioned for any of the following reasons.
 - 5.5.1.1 Loss of trail manager: If a trail manager relinquishes responsibility of a trail, a petition will be made for a replacement. If none is found, the trail will be decommissioned.
 - 5.5.1.2 Failure to perform annual maintenance:
 - 5.5.1.3 Failure to perform special maintenance:
 - 5.5.1.4 Trail that is not maintainable:
 - 5.5.1.5 A Trail that has been improperly altered:
 - 5.5.1.6 Any other reason deemed appropriate by the District:

6.0 Construction of Man Made Technical Features (MMTF):

(see attached **Whistler Trail Standards** for MMTF level ratings)

6.1 Preliminary Approval:

- 6.1.1 Requirements:
 - 6.1.1.1 Level 1-3: Trail managers may approve MMTFs of level 3 and lower.
 - 6.1.1.2 Level 4: Level 4 MMTFs require the approval of the District's representative.
 - 6.1.1.3 Level 5: Level 5 MMTFs are not allowed.
- 6.1.2 Submission of request: Requests to build level 4 MMTFs shall be submitted in writing to the District's representative. The submission shall contain the following:
 - 6.1.2.1 Reason for proposed rating of the MMTF as Level 4:
 - 6.1.2.2 Rough drawing of the proposed MMTF:
 - 6.1.2.3 Location of the MMTF on the trail map:
 - 6.1.2.4 Brief description of the proposed construction techniques.
- 6.1.3 Response: The representative will provide a response either approving or disapproving proposed MMTFs. A list of required changes may be provided.

6.2 Build: Once preliminary approval is granted, building may begin.

- 6.2.1 Marking: MMTFs in construction must be marked as per this standard.
- 6.2.2 Building: MMTFs shall be construction to the standards established in this document.

6.3 Final Approval: MMTFs require approval of the District before they can be commissioned for general use.

7.0 Standards for marking:

- 7.1 **Trail marking:** Proper trail marking serves two purposes. First, it provides confirmation to the rider that he or she is still following the appropriate trail. Secondly, it provides the rider with information that he or she needs to make decisions concerning on the appropriateness of the trail.
 - 7.1.1 Location: Trail markers shall be posted at the trail entrance and at each intersection with existing trails.
 - 7.1.2 Durability: Trail markings shall be able to be completely submersed in water without deleterious effects to the marking.

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- 7.1.3 During construction: During trail construction the trail shall be marked at the appropriate locations with the words “Dead End! Trail in Construction – Do not use”. In addition, the sign shall state the name of the trail manager.
- 7.1.4 Completed trail: Completed trails shall be marked in the appropriate location with the following information:
 - 7.1.4.1 Trail Name:
 - 7.1.4.2 Difficulty Rating:
 - 7.1.4.3 Brief description of the reason for the rating:
 - 7.1.4.4 Special considerations: Cautions, warnings, etc.
- 7.1.5 Decommissioned Trails: Decommissioned Trails shall be marked at the appropriate locations with the words “Trail No Longer in Service! Do Not Use!” Information on the steps required to remove the decommissioning shall be listed if applicable.

8.0 **Standards of Construction - Trails**: IMBA’s “Building Better Trails” provides some of the most extensive and complete instruction that is available today on building trails that support long-term maintenance, provide maximum use of available land, and enhance the trail riding experience. During the preliminary trail approval process, the issue of trail construction and IMBA standards should be discussed with the representative to determine which standards are appropriate for terrain where the trail is to be built. (www.imba.net)

9.0 **Standards of Constructions – MMTFs**: The “Resort Municipality of Whistler – Trail Standards Manual” includes approved construction materials, practices, and design standards. All MMTF’s must comply with those standards. In addition, MMTF’s must provide:

9.1 **Supporting Loads:**

- 9.1.1.1 MMTFs rated level 1-4 shall support a singularly applied load of 300lbf applied vertically (downward) to any horizontal surface likely to come in contact with the bicycle tire or to be used as a support by the bicycle rider whether intentionally or unintentionally. A maximum vertical deflection of 1inch is allowed when the aforementioned force is applied.
- 9.1.1.2 MMTFs rated level 1-4 shall support a singularly applied load of 150lbf applied horizontally at any point on the construction or supporting structure. A maximum horizontal deflection of 1inch is allowed for an applied horizontal force of 100lbf.

9.2 **Attachment:**

- 9.2.1 Live trees: MMTF’s shall not be permanently attached to live trees. Live trees grow and therefore do not support long-term stable platforms for the construction of MMTFs. Constructions may rest against live trees to prevent horizontal deflection provided no permanent attachment is made.
- 9.2.2 Removal of bark: If logs or branches are used as structure members for the construction, the bark must be removed at the point of attachment.
- 9.2.3 Nails: If nails are used as a form of permanent attachment, the following applies.
 - 9.2.3.1 A minimum of two nails must be used per attachment point.
 - 9.2.3.2 When two members are joined by nails, ¾ inch length of nail must protrude each member.
 - 9.2.3.3 Nails must not cause wood to split more than 1inch, the split must not extend to the edge of the wood.

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ATTACHMENT A: Whistler Trail Standards for MMTF Level Ratings

Level 1 – Beginner: Beginner level MMTF should only be for the purpose of preventing erosion and avoiding natural obstacles only.

Appropriate MMTFs: bridges only. Bridges should be smooth, and a minimum of 3ft in width.

Level 2 – Easy: Level 2 MMTFs should be for the purpose of preventing erosion or avoiding natural obstacles only.

Appropriate MMTFs: Bridges only. Bridges should be smooth, and a minimum of 2ft in width.

Level 3 – Intermediate: Level 3 MMTFs are considered stunts since, though they may serve to prevent erosion and avoid natural obstacles, their primary purpose is to challenge the skill of the rider. Level 3 MMTFs are for those riders beginning the transition to black diamond riding. The MMTFs should be challenging but the penalty for failure should be minimal.

Appropriate MMTFs: Bridges, jumps, teeter-totters, and drops.

Approaches: Approaches to level 3 MMTFs should form a maximum of 20deg at the point of contact with the terrain.

Turns: Turns while on the MMTF should not require the rider to lift a wheel.

Descents: Descents should be at such an angle to allow the rider to come to a complete stop while on the descent.

Maximum heights:

Bridges – 3ft

Teeter totters – 2ft at pivot point

Drops – 3ft from exit point to any point extending 5ft beyond the drop.

Jumps – 5ft from exit point to any point extending 10ft beyond the jump.

Width: ½ of MMTF height above 30in. No width requirements below 30in.

Other: No minimum speed required for negotiation of MMTF.

Level 4 – Advanced: Level 4 MMTFs are for riders with superior bike handling skills and who have mastered level 3 MMTFs. Padding and full-faced helmet are advised for these types MMTFs.

Appropriate MMTFs: bridges with turns, jumps with gaps, drops, teeter-totters, and other types of MMTFs meeting dimensional requirements.

Approaches: Approach should make a maximum angle of 40deg at point of contact with terrain.

Turns: A maximum turn angle of 90deg. Between 45deg and 90deg the height of the turn should be below 3ft. Between 20deg and 45deg the height of the turn should be below 6ft.

Descents: Descents should form a maximum of 60deg with the terrain at the point of contact.

Maximum heights:

Bridges: 8ft

Teeter-totters: 5ft at pivot point

Drops: 6ft from exit point to any point 5ft beyond the drop (see diagram on Page 8).

Jumps: 7ft from exit point to any point 20ft beyond the jump(see diagram on Page 9).

Width: 1/3 of the height above 4ft. No minimum width requirements below 4ft.

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ATTACHMENT B: IMBA Statement of “Freeride” Mountain Bicycling

“When mountain biking began in the mid 1970s, it was all about freedom. Many of the pioneers were free-spirited Northern California road racers, looking to escape the rules, regimented training, and black-shorts-only conformity of sanctioned road competition. Riding down Marin County's highest peak, Mt. Tamalpais, they dressed as they wanted, modified their bikes as needed, and basically answered to no one. They stayed on the trail and generally pushed their 50-pound bikes uphill, but were otherwise unconstrained.

What started as a downhill sport evolved into an up-and-down one - labeled "cross-country" as a racing format. Spurred by new suspension technology, downhill began to make a comeback in the early '90s. Technical riding was originally popularized as formal competition – “trials” - but soon rode the wave of full-suspension into broad appeal. Somewhere along the way, the term “freeriding” became popular, particularly after some manufacturers latched onto it for their product marketing. Soon, freeriding became controversial - particularly when it was associated with off-trail riding - a type of pedaling that provoked the ire of conservationists, land managers and mainstream mountain bikers concerned about maintaining reasonable access. The debate about freeriding was fueled by the distribution of videotapes that portrayed bold, high-speed riding down sheer scree fields and huge leaps of faith off towering cliffs. To this day, much of the discussion about the appropriateness of freeriding flows quite simply from the way freeriding is defined...and there are as many definitions as there are places and styles of mountain biking.

To some, freeriding is simply an attitude: fun-loving, creative riding that sets a positive mood. To others, it's all about technical challenge: finding bold new environments for pushing their personal limits.

Whatever it is, freeriding is big, getting bigger, and very much on the minds of mountain bikers and land managers everywhere.

In a nutshell, IMBA's outlook on freeriding is this: Our sport needs to embrace and support all riders, particularly young ones. We need to create ways to provide the types of riding that people want. At the same time, we've always got to protect the environment and respect the experiences of all outdoor recreationists. Through innovative trail management, energetic volunteer work and a conscious effort to be inclusive and imaginative, we can achieve all of these goals.

From its beginning, one of the best things about mountain biking has been its spontaneity and the ways it makes you feel free. We follow basic rules, but we're free to make decisions about who we ride with as well as what, when, and where we ride. Let's keep that spirit - that tradition intact.”