Appendix B: Best Management Practice Principles for Proposed Vermont Trail Certification Program

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Vermont Agency of Natural Resources

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Introduction

Clear, comprehensive, and practicable best management practices (BMPs) are an essential component of the proposed Vermont Trail Certification Program. The Agency of Natural Resources proposes to establish such BMPs through a rulemaking process that builds on: (a) the many practices already successfully employed by Vermont trail organizations to reduce the environmental impacts of trails, and (b) the Agency's and other stakeholders' experience designing and permitting trails to meet a wide array of environmental criteria. This document identifies, by practice area, the principles that would guide selection and development of trail BMPs during rulemaking.

Trail Planning

This practice area covers the siting and design of trails at the site and landscape levels. Trail planning BMPs would ensure:

- 1. Trails and incidental infrastructure are designed in a manner that avoids concentrating runoff and the direct discharge of runoff into receiving waters. Addresses Act 250 criteria 1(E), 1(G), and 4.
- 2. Trails and incidental infrastructure would not be in river corridors or Special Flood Hazard Areas unless they meet the No Adverse Impact Standard and Floodplain Management Standards of DEC's Flood Hazard Area and River Corridor Protection Procedure. Addresses Act 250 criterion 1(D).
- 3. Trails and incidental infrastructure would avoid riparian zones to the greatest extent practicable, adhere to Agency guidance regarding riparian zone conservation, and utilize stream crossing structures that maintain natural stream conditions. Addresses Act 250 criteria 1(E) and 1(F).
- 4. Trails and incidental infrastructure are located and designed to minimize impacts to historic sites, including archeological landmarks. Addresses Act 250 criterion 8.
- 5. Trails and incidental infrastructure would avoid, to the greatest extent practicable, State-designated Significant Natural Communities, habitats for State-listed rare, threatened, and endangered species, and necessary wildlife habitat, including but not limited to deer winter habitat, habitat for pool-breeding amphibians, high elevation nesting habitat for Bicknell's Thrush and other high elevation birds, black bear feeding habitat and travel corridors, and habitat for other species of wildlife. Understanding many trails will traverse the forested landscape, BMPs may include specific guidance for how trails may cross certain natural communities and habitats with limited adverse impacts.
- 6. Trails and incidental infrastructure are sited to maintain regional ecological landscape connectivity and retain sufficient trailless recreation opportunities on public lands. Specific BMPs may involve the application of GIS-based tools to be developed by the Agency.

- 7. Trail organizations receive support letters from abutting public landowners. Addresses Act 250 criterion 9(K).
- 8. Trail organizations receive written permission from host landowners and engage host landowners in the trail planning process.
- 9. Trail organizations design trails with the user and user safety in mind, providing multiuse and accessible opportunities where appropriate.
- 10. Trail organizations plan for and provide support infrastructure and amenities sufficient to meet the level of use expected on their trails, including parking, traffic congestion, safety, signage, and sanitary facilities.
- 11. Trail organizations sufficiently engage the public, host municipalities, and emergency service providers in trail planning and consider the effects their trails and incidental infrastructure have on municipal and regional plans. Addresses Act 250 criteria 9(A) and 10.
- 12. Trail organizations receive all requisite permits prior to construction, including stormwater, stream alteration, shoreland, and wetland permits, and adhere to Agency trail building guidance for wetlands. Addresses Act 250 criteria 1(B), 1(E), 1(F), 1(G), and 4.

Trail Construction

This practice area covers the construction of new trails and substantial improvements to existing trails. Trail construction BMPs would ensure:

- 13. Trails and incidental infrastructure are constructed with appropriate erosion prevention and sediment controls. Addresses Act 250 criterion 4.
- 14. Trail organizations comply with the construction-phase requirements of permits issued for their projects. Addresses, where applicable, Act 250 criteria 1(B), 1(E), 1(F), 1(G), and 4.
- 15. Trail organizations adhere to Agency guidance on blasting, if applicable. Addresses Act 250 criterion 1(B).
- 16. Trails and incidental infrastructure are constructed at times and using methods least impactful to rare, threatened, and endangered species and necessary habitat for deer, pool-breeding amphibians, Bicknell's thrush, black bear, and other wildlife species, where such necessary habitat is nearby. Addresses Act 250 criteria 8(A).
- 17. Trail builders, including volunteers, safely construct trails by using appropriate equipment, avoiding hazardous conditions, and by ensuring trail builders are adequately trained.

Trail Use

This practice area addresses the use and condition of trails and incidental infrastructure and the impacts their use has on natural and human communities after construction. These BMPs would ensure:

- 18. Trail organizations regularly monitor and report on use and condition of trails and supporting amenities using appropriate tools and methods. Monitoring would cover volume of use, capacity of trails and supporting amenities (*e.g.*, parking, trash, sanitary facilities), changes in use and user conflict, safety hazards, and impacts to natural and cultural resources.
- 19. Trail organizations collect and respond to feedback on use from landowners, neighbors, municipalities, and emergency service providers, including traffic congestion and noise.
- 20. Trail location and use guidelines are made publicly available.
- 21. Trail organizations provide guidance to trail users to minimize adverse impacts to natural resources, host landowners, and neighbors.
- 22. Trails and incidental infrastructure are used at times least impactful to rare, threatened, and endangered species, deer, pool-breeding amphibians, Bicknell's thrush, black bear, and other wildlife species where necessary habitat for such species is nearby. Addresses Act 250 criteria 8(A).

Trail Maintenance

This practice area covers the ongoing maintenance of trails and incidental infrastructure. These BMPs would ensure:

- 23. Trail organizations develop and implement yearly maintenance plans specific to their trail networks and that respond to monitoring results. Maintenance plans would address drainage and erosion, vegetation management, signage, user and resource conflicts, unauthorized access, and emerging safety concerns.
- 24. Trail organizations have sufficient and adequately resourced trail maintainers.
- 25. Maintenance activities are conducted safely by using appropriate equipment, avoiding hazardous conditions, and by ensuring trail maintainers are adequately trained in safety protocols.