

Developing Trails and Volunteering on DCR Lands

Massachusetts Trails Conference
November 12, 2011

Session Objectives

Resources for Trail Maintenance and Construction

DCR's Trails Manual and Best Management Practices

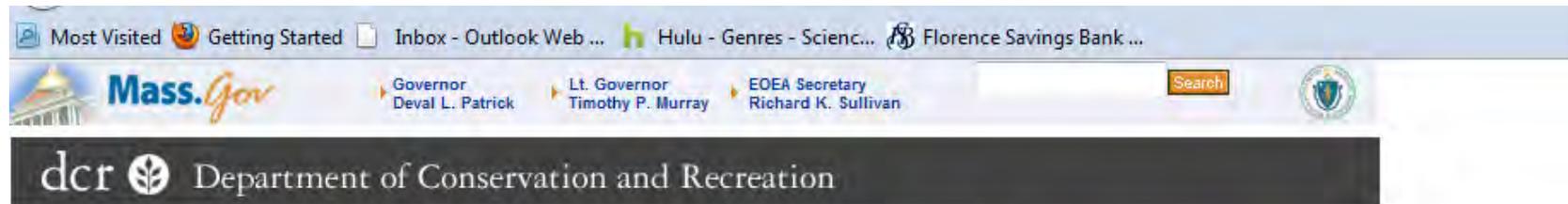
Developing and Improving Trails on DCR Lands

Update on DCR's Volunteer In Parks (VIP) Policy



Trail Guidelines and Best Practices Manual

- www.mass.gov/dcr/stewardship/greenway/index.htm



The screenshot shows the top navigation bar of the Massachusetts Department of Conservation and Recreation website. It includes a search bar, the state seal, and links to the Governor (Deval L. Patrick), Lt. Governor (Timothy P. Murray), and EDEA Secretary (Richard K. Sullivan). The main header features the 'dcr' logo and the text 'Department of Conservation and Recreation'.



Greenways are corridors of land and water that connect and protect natural, cultural, and recreational resources. Greenways are a part of our natural "green infrastructure." They include many types of trails and walkways, river corridors, bicycle paths, wildlife corridors, and conservation lands linked by trails

DCR's Greenways and Trails Program works in partnership with greenways and trails advocates in Massachusetts to promote and support the creation of greenways and trails at the local, regional, and state levels. To advance this goal, the Program provides small grants, information, and technical assistance to communities, user groups and

[DCR Trails Guidelines and Best Practices Manual](#)

[Connections Monthly E-Newsletter](#)

[Recreational Trails Grants](#)

[Recreational Trails Program
Statewide Trails Education Grants](#)

[Greenway Demonstration Grants \(unfunded\)](#)

[Massachusetts Greenway and Trails Links](#)

[Publications and Resources](#)

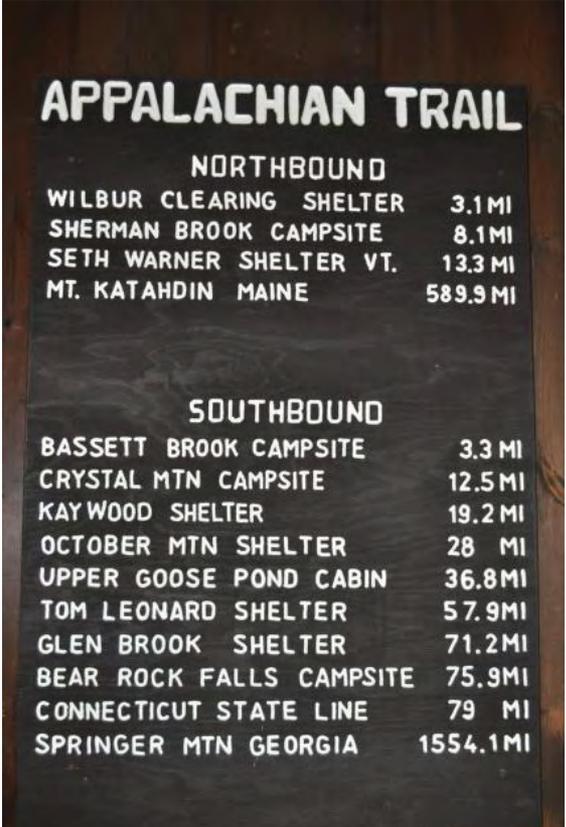
[Massachusetts Recreational Trails Advisory Committee \(MARTAB\)](#)

[On the Road Ahead](#)

[Contact Us](#)

Trail Guidelines and Best Practices Manual: Goals

- Promote state-wide consistency in how trails are classified, planned, designed, developed, managed, and maintained
- Enhance the management of our trails to serve the diverse needs and capabilities of visitors
- Ensure that trail experiences are safe and enjoyable
- Reduce costs through the use of practical and sustainable methods for developing and maintaining trails



APPALACHIAN TRAIL	
NORTHBOUND	
WILBUR CLEARING SHELTER	3.1 MI
SHERMAN BROOK CAMPSITE	8.1 MI
SETH WARNER SHELTER VT.	13.3 MI
MT. KATAHDIN MAINE	589.9 MI
SOUTHBOUND	
BASSETT BROOK CAMPSITE	3.3 MI
CRYSTAL MTN CAMPSITE	12.5 MI
KAYWOOD SHELTER	19.2 MI
OCTOBER MTN SHELTER	28 MI
UPPER GOOSE POND CABIN	36.8 MI
TOM LEONARD SHELTER	57.9 MI
GLEN BROOK SHELTER	71.2 MI
BEAR ROCK FALLS CAMPSITE	75.9 MI
CONNECTICUT STATE LINE	79 MI
SPRINGER MTN GEORGIA	1554.1 MI

Trail Guidelines and Best Practices Manual: Contents

- Section I: Introduction
 - Importance of trails
 - Types of trails
 - Approved trail uses
- Section II: Trail Planning and Development
 - Trail assessments
 - Sustainable, enjoyable and accessible trails
 - Permitting
- Section III: Trail Management
 - Maintenance
 - Signage standards
 - Addressing conflict

**Department of
Conservation and Recreation**

**Trails Guidelines and Best Practices
Manual**

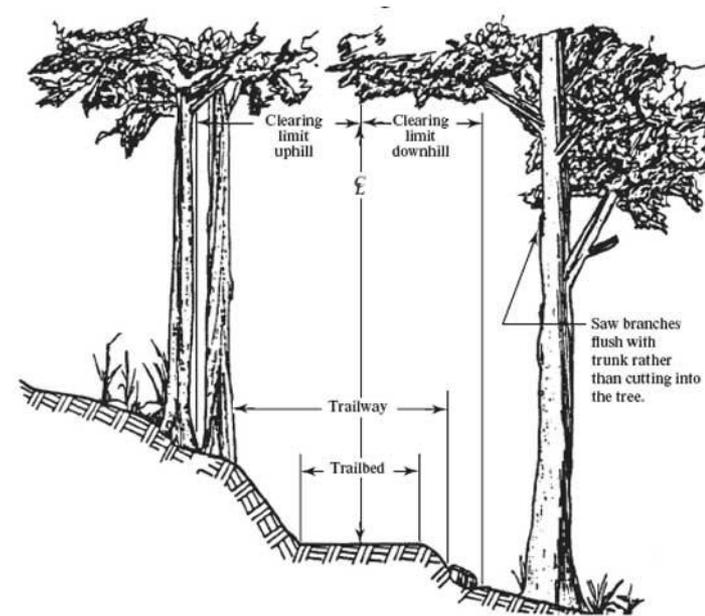


The Metacomet-Monadnock trail to Mt. Norwotock

Trail Guidelines and Best Practices Manual

Trail Maintenance

- Trail Corridor Vegetation Clearance
- Trail Tread Maintenance
- Simple Drainage Structure Installation and Maintenance
- Moderate Drainage Structure Installation
- Steep Slope Structure Installation
- Trail Closures
- Wet Area Crossings
- Stream Crossings



Trail Guidelines and Best Practices Manual



□ Trail Signage

“Signs are probably the quickest and easiest way to leave the trail user with a positive impression. If the signs are high quality, well maintained, and properly located, other trail problems are often over-looked. Consistent signs are the quickest way to increase the trail’s identity and the public’s support for the trail.” (National Park Service)

Trail Guidelines and Best Practices Manual: Signage

- Trailhead Signs
- Intersection Directions
- Reassurance Marking
- Interpretive Signage
- Caution / Warning



DCR's Trail Planning Context

- ❑ **Landscape Designations**
- ❑ **Resource Management Plans**
- ❑ **Trail System Plans**
- ❑ **Facility / Master Plans**
- ❑ **Trail Proposal Form**



DCR's Trail Planning Context

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Trail System Planning and Development

Each *Trail System* should effectively contribute to three primary goals:

- ❑ Highlighting ecological, scenic, and cultural features within our facilities
- ❑ Providing specific, enjoyable recreational experiences to users
- ❑ Connecting important trail corridors, destinations, and population centers both within and outside of our facilities

Each *Trail System* should also simultaneously:

- ❑ Avoiding sensitive areas
- ❑ Meeting the expectations of users
- ❑ Minimizing ecological impacts
- ❑ Minimizing maintenance requirements

Developing and Improving Trails on DCR Lands

New trail development, reroutes or changes in use

- Document request – *Trail Proposal and Evaluation Form*
- Establish review team
- Assess consistency with other plans
- Identify trail objective, demand and support
- Determine capacity to build and maintain



Developing and Improving Trails on DCR Lands

DCR Review

- Resource Protection
- Public Safety
- Reduce User Conflicts
- Regulatory Requirements
- Ensure Best Management Practices



Developing and Improving Trails on DCR Land

Proponent should assess:

- What is the demand?
- What is the proposed managed use?
- What experience do you want to provide?
- What connections do you want to make?
- What options are there for parking and trail access?
- What are the natural, scenic or cultural features you want to highlight?
- Others?



Developing and Improving Trails on DCR Lands

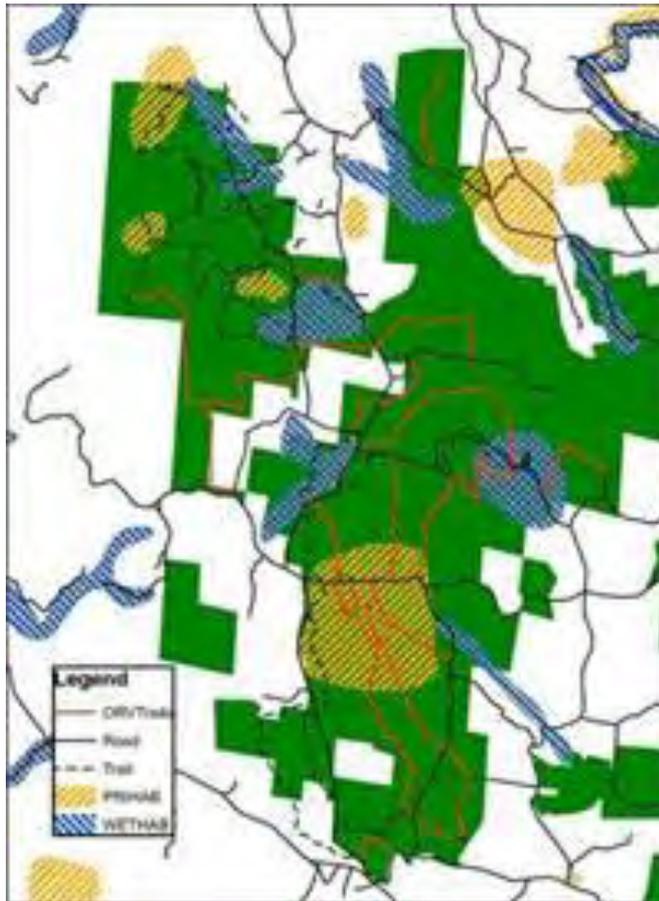
Other Key Questions:

- What is the designed use and specifications?
- Who will design and locate trail?
- What are the restrictions?



- What permits are needed?
- Who will fund construction?
- How will the trail be built?
- Who will maintain?

DCR's Project Review



Permitting

- Wetlands Protection
- Historic and Archaeological
- Protected Species and Habitat

DCR Review: *Protecting Rare Species and Habitat*

- Protecting rare habitat is important to maintain species diversity
 - DCR Provides habitat for over 290 rare species and 68 natural communities.
 - Approximately 24% of DCR land and 25% of trails totaling 538 miles are in Priority Habitat
- Trail maintenance has the potential to have significant impact on rare species and their habitat
- All trail maintenance activities are subject to MESA review



Protecting Rare Species and Habitat

Trail Construction and Maintenance



Installing bog bridging can impact rare turtle and amphibian habitat



Cutting trees and shrubs to provide a vista can impact rare woody plants

Protecting Rare Species and Habitat

Trail Construction and Maintenance



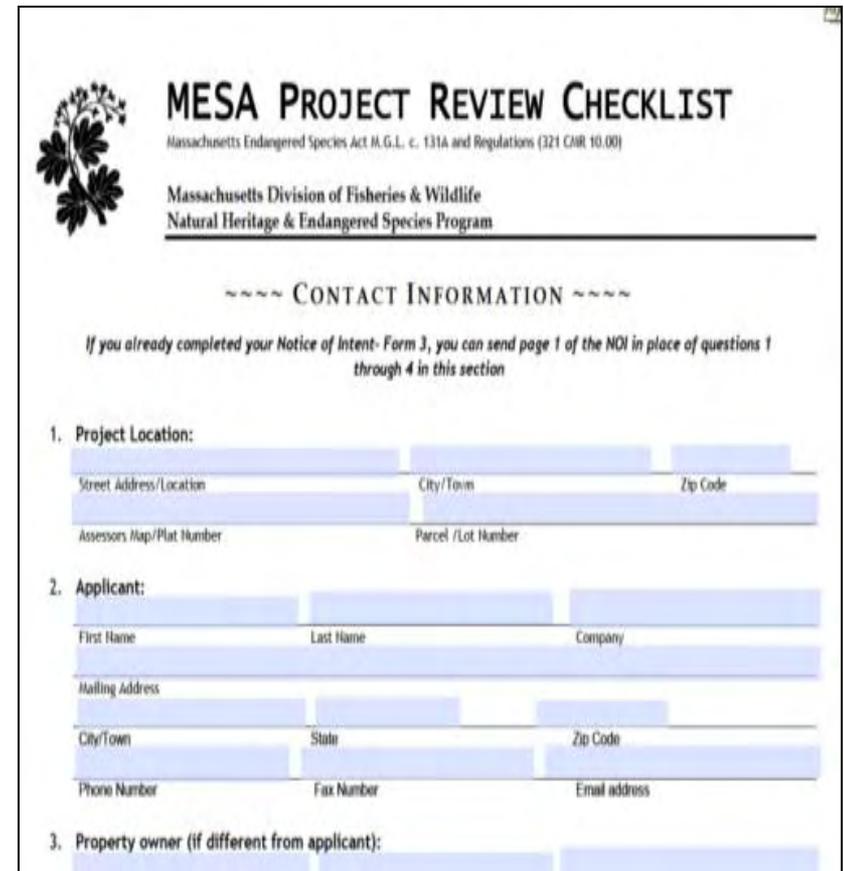
Building rock steps or new water bars can impact rare flora habitat within and outside of the tread way



Tread way clearing for the construction of new trails or re-routing existing trails can impact rare habitat; and introduce new public access / impacts to protected bird breeding and nesting sites

Species Protection: 3 Approaches

- File an individual MESA Project Checklist for review
\$\$\$\$ + time
- Develop Approved Habitat Management Plan *\$\$\$\$ + time*
- Follow Biodiversity Stewardship Initiative procedure



MESA PROJECT REVIEW CHECKLIST
Massachusetts Endangered Species Act M.G.L. c. 131A and Regulations (321 CMR 10.00)

Massachusetts Division of Fisheries & Wildlife
Natural Heritage & Endangered Species Program

~~~~ CONTACT INFORMATION ~~~~

*If you already completed your Notice of Intent- Form 3, you can send page 1 of the NOI in place of questions 1 through 4 in this section*

1. Project Location:

|                           |                    |          |
|---------------------------|--------------------|----------|
| Street Address/Location   | City/Town          | Zip Code |
| Assessors Map/Plat Number | Parcel /Lot Number |          |

2. Applicant:

|                 |            |               |
|-----------------|------------|---------------|
| First Name      | Last Name  | Company       |
| Mailing Address |            |               |
| City/Town       | State      | Zip Code      |
| Phone Number    | Fax Number | Email address |

3. Property owner (if different from applicant):

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

# Project Review: *Protecting Rare Species and Habitat*

## □ Our Goal

*To streamline and simplify efforts to provide excellent and safe recreational opportunities, while fulfilling legal requirements to protect rare species and their habitats*



*Hairy Wood-mint*

*Blephilia hirsuta*

*State Status: Endangered*

# Species and Habitat Protection

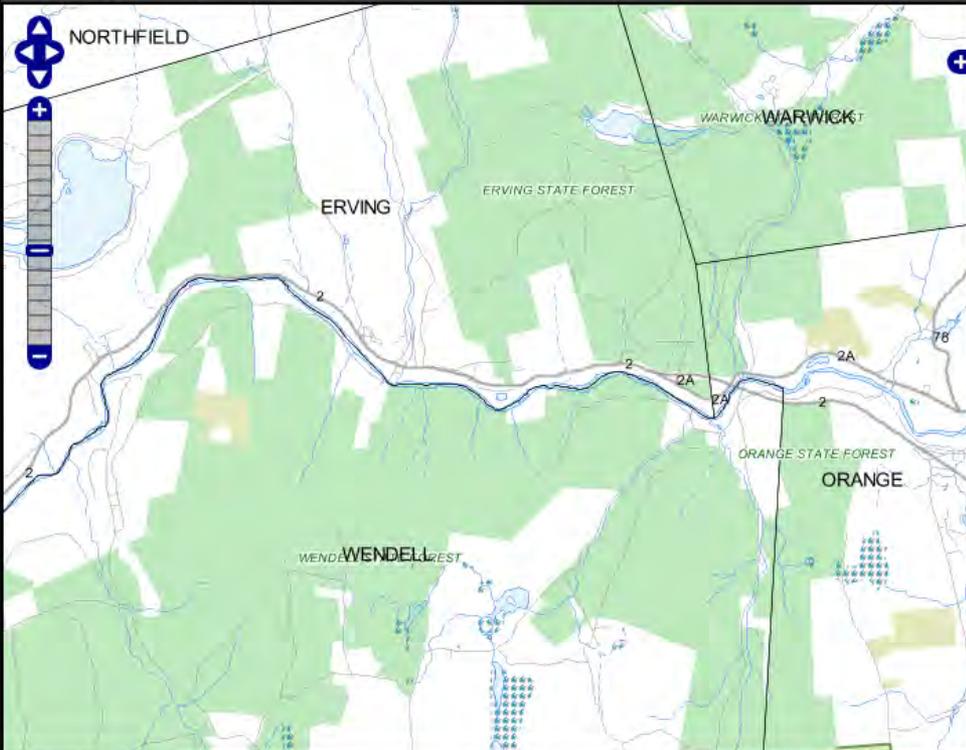
## Methodology

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- Begin with DCR GPS trail inventory
- Natural Heritage overlay of priority habitats
- Identified 9 categories of trail maintenance activities
  - Corridor vegetation clearance
  - Tread maintenance
  - Simple drainage structures
  - Moderate drainage structures
  - Steep slope structures
  - Wet area crossings (bog bridges / puncheons)
  - Minor Stream crossings
  - Trail closures
  - Trail re-routes

# DCR Trail Data Viewer

dcr Department of Conservation and Recreation



**DCR Road & Trail GPS data**

Instructions on moving around the map, plus more information about this project, are at the [bottom of the page](#).

Click on a trail/road or point to view information about that feature (you must zoom in close first to where the features are visible), or choose a park from the list:

Choose a park:

Type in a point ID# (from one of the printed maps) and click Go! to zoom the map to that point:

**Symbolize Roads & Trails:**

- By Type
- By Surface
- By Vehicle Access
- By Condition
- By Width
- By Trail Marking

**Toggle map layers:**

- DCR Road and Trail Points
- DCR Roads and Trails
- Public Roads
- Trains
- Water Features
- Contour Lines
- DCR Facilities
- 2005 Orthophoto

*Note: some layers will not appear at certain zoom levels.*

**GPS Roads and Trails:**

- Trail
- Forest Road/Trail
- Administrative Road
- Public Road

Scale = 1 : 50K

127680.10528, 931415.48576

No Road/Trail clicked

No Road/Trail Point clicked

# DCR Trail Data Viewer

Type in a point ID# (from one of the printed maps) and click Go! to zoom the map to that point:

**Symbolize Roads & Trails:**

By Type       By Condition  
 By Surface       By Width  
 By Vehicle Access       By Trail Marking

**Toggle map layers:**

DCR Road and Trail Points  
 DCR Roads and Trails  
 Public Roads  
 Trains  
 Water Features  
 Contour Lines  
 DCR Facilities  
 2005 Orthophoto

*Note: some layers will not appear at certain zoom levels.*

**GPS Roads and Trails by Condition**

- ✓ Good
- Fair
- ✗ Poor
- ⚡ Illegal
- ⚡ Uncoded

**Road/Trail GPS Points:**

- Trailhead
- Dead End
- Parking Area
- Gate
- ★ Road Bridge
- Road Culvert
- Road Drainage Dip
- ⊕ Road Ford
- ▲ Road Damage
- Road Landing Entrance
- ▲ Road Sign

Scale = 1 : 18K      129788.50414, 931176.36588

| Road & Trail Line Attributes    |                      | Road & Trail Point Attributes    |                   |
|---------------------------------|----------------------|----------------------------------|-------------------|
| ID:                             | 16206                | ID:                              | 25728             |
| Type:                           | Forest Road/Trail    | Type:                            | Trail Damage      |
| Comments:                       |                      | Comments:                        |                   |
| Primary surface:                | Natural              | Damage type:                     | Water/mud hole    |
| Minimum width:                  | 3' - 5'              | Length of damaged area, in feet: | 10                |
| Condition:                      | Fair                 | Depth of damaged area:           | 2" - 8"           |
| What type of vehicle can pass?: | ORV                  | Photo taken?:                    | No                |
| Trail marking along trail:      | Good                 | Photo ID:                        |                   |
| Is trail unofficial?:           | No                   | Field note #:                    | 0                 |
| GPS Date:                       | 5/1/2007             | GPS date:                        | 5/1/2007          |
| GPS Time:                       | 01:55:26pm           | GPS time:                        | 01:48:08pm        |
| Length in meters (GIS):         | 1265.86              | Latitude:                        | 42.6281229991493  |
| Source shapefile name:          | edit_erving_line.shp | Longitude:                       | -72.3758642722598 |
|                                 |                      | Source of point feature:         |                   |

# DCR Trail Data Viewer



## Symbolize Roads & Trails:

- |                                          |                                    |
|------------------------------------------|------------------------------------|
| <input checked="" type="radio"/> By Type | <input type="radio"/> By Condition |
| <input type="radio"/> By Surface         | <input type="radio"/> By Width     |
| <input type="radio"/> By Vehicle         | <input type="radio"/> By Trail     |

Access

Marking

## Toggle map layers:

- DCR Road and Trail Points
- DCR Roads and Trails
- Public Roads
- Water Features
- NHESP Priority Habitat
- Trails with NHESP Codes
- DCR Facilities
- 2005 Orthophoto

*Note: some layers will not appear at certain zoom levels.*

# Mass. Natural Heritage Priority Habitat Overlay

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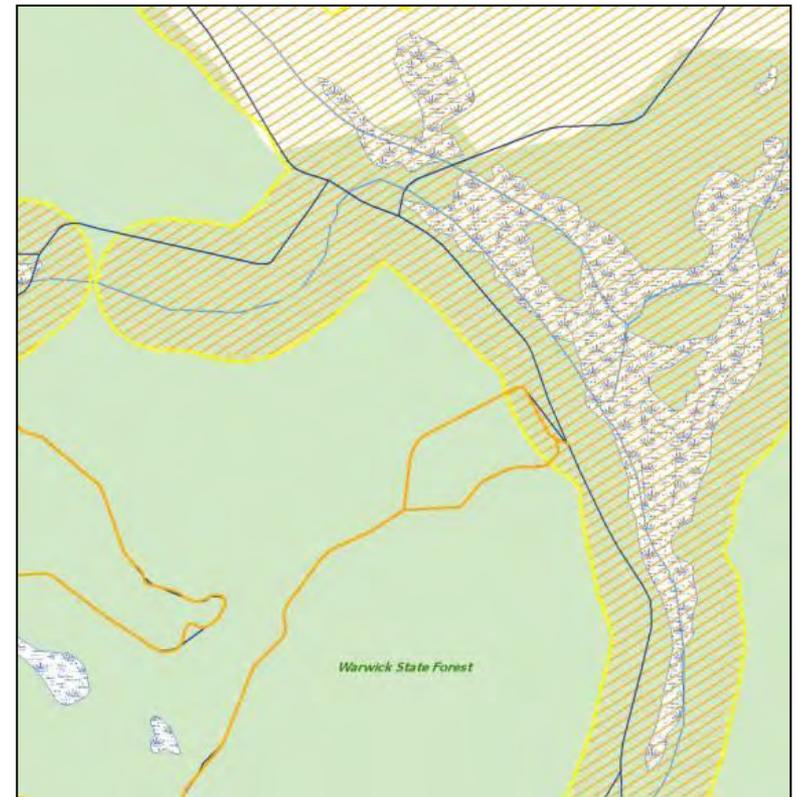
NHESP biologists evaluated trail maintenance activities within priority habitat and developed guidance codes for each project segment

- Green – proceed
- Yellow – proceed subject to restrictions / conditions
- Red – must file detailed plans for NHESP review

All trail new trails and re-routes within priority habitat must file detailed plans for NHESP review

# DCR Trail Data Viewer

|                                                     |                   |
|-----------------------------------------------------|-------------------|
| <i>Vegetation Clearance</i><br>( <i>VEG_CLEAR</i> ) | <b>Green</b>      |
| <i>Tread Maintenance</i><br>( <i>TRD_MAINT</i> )    | <b>Green</b>      |
| <i>Simple Drainage</i><br>( <i>SIMP_DRAIN</i> )     | <b>Green</b>      |
| <i>Moderate Drainage</i><br>( <i>MOD_DRAIN</i> )    | <b>Red</b>        |
| <i>Steep Slope</i><br>( <i>STEEP_SLP</i> )          | <b>Yellow [5]</b> |
| <i>Wet Area Crossing</i><br>( <i>WET_CROSS</i> )    | <b>Green</b>      |
| <i>Stream Crossing</i><br>( <i>STRM_CROSS</i> )     | <b>Red</b>        |
| <i>Reroutes</i><br>( <i>RE_ROUTES</i> )             | <b>Red</b>        |
| <i>Trail Closure</i><br>( <i>CLOSURES</i> )         | <b>Green</b>      |



# DCR Trail Data Viewer

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NHESP Data Set: Yellow  
Condition Code for Steep Slope  
(cribbing or retaining walls, check  
dams and stone steps)

**Yellow 5:** All work with hand  
tools (if machinery used, turtle  
sweeps\* must be done at the work  
area each day)



# Working together for species protection

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- **Plan ahead** - develop annual work plan for review
- **Prior to trail maintenance / construction** check to see if proposed work is in Priority Habitat – Atlas, GIS map, DCR Trail Data Viewer
  - *If not, proceed with maintenance*
  - *If work site is within priority habitat continue with next step*
- Determine if maintenance activity can be done without further review – green code
- Determine what restrictions / conditions may apply – yellow code
- Determine what activities can not be done without further review – red code
- Submit detailed plans to NHESP for trail maintenance activities within red trail segments for additional review
- **All new trail construction requires Mass NHESP review if in PH**

# Volunteers In Parks



“DCR is committed to welcoming, facilitating and effectively involving Volunteers in the stewardship of the Commonwealth’s natural and cultural resources in the Agency’s care.”

# Draft Policy



- establishes formal written communication procedures between volunteers and agency staff

# Draft Policy



- requires review of proposed volunteer actions from various agency interests

# Draft Policy

- provides streamlined mechanisms for non-profit organizations who produce numerous volunteer activities each year



# Draft Policy

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- provides liability protection to volunteers who comply with procedures

# Draft Policy

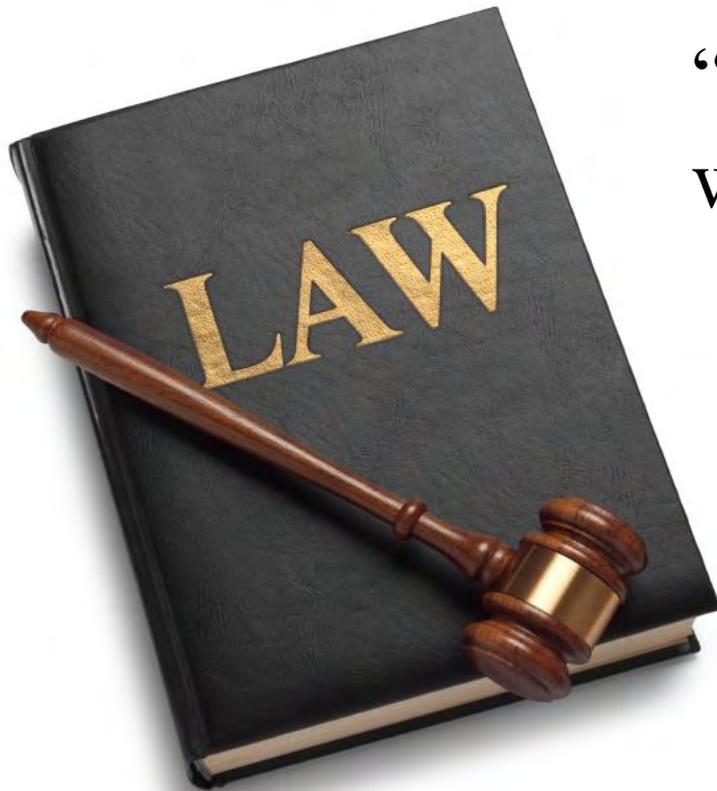
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- creates a mechanism to capture volunteer service hours and contributions

# Initial Public Concerns & Suggestions

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“Reads like it was  
written by a Lawyer.”

# Initial Public Concerns & Suggestions

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Insurance:

“The Nonprofit Organization shall carry general liability insurance having insurance coverage of at least \$100,000; and shall name DCR as an additional insured...”

# Initial Public Concerns & Suggestions



Power Equipment



# Initial Public Concerns & Suggestions

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Too Much !!!



# We Heard You!

## Volunteers in Parks



### Welcome Volunteers!

Massachusetts is blessed with an abundance of exceptional natural, historic and recreational resources that enrich the lives of our residents and attract visitors from around the world. DCR and its professional staff are proud of our role as the caretaker of more than 450,000 acres of these exceptional resources and we invite, encourage and welcome you to share your talents, your energy,

and your time in the stewardship of these special places.

Governor Deval Patrick and the Massachusetts Legislature recognize that volunteer activities and events "serve an important public purpose by assisting in the enhancement, preservation and improvement of the park system in the Commonwealth". They challenged DCR to

develop a program to help foster and assist in park stewardship by encouraging volunteer activities and partnerships with nonprofit organizations. This brochure is intended to introduce you to DCR's Volunteers in Parks (VIP) program and assist you in sharing your knowledge and skills for the improvement of the Massachusetts State Park System.

#### Contents:

|                             |   |
|-----------------------------|---|
| Welcome VIP's               | 1 |
| VIP Opportunities           | 1 |
| Getting Started as a VIP    | 2 |
| Working with Friends Groups |   |
| And Advocates               | 2 |
| VIP Benefits                | 2 |

### VIP Opportunities

A wide range of individuals and organizations participate in the VIP program. They range from Girl and Boy Scouts to senior citizens. Our VIP's include individuals, families, and members of organizations such as park "friends" or activity-oriented groups like biking, hiking and snowmobile clubs. Others are corporate and community groups or religious or youth- service organizations.

#### Common VIP activities include:

Making a park or beach more inviting for visitors and safer for birds and wildlife by cleaning up litter or debris.

Keeping trails open, safe and sustainable by removing fallen trees, trimming growth or installing steps or drainage structures.

Enhancing our visitor's experience by greeting and assisting them.

Helping visitors to value park resources by assisting with educational programs or events.

Protecting native species by removing invasive plants.

Increasing our knowledge of park resources by conducting historical or scientific research.

Enhancing the visitor experience or wildlife habitat by planting flowers, trees or shrubs.

- Reviewing process and procedure to find opportunities to simplify.
- Developing new approaches to communication.
- Will be sharing updated approach in coming months.

# *Questions and Comments?*

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