Improved Wood Preservation Practices for Railroad Bridge Timbers

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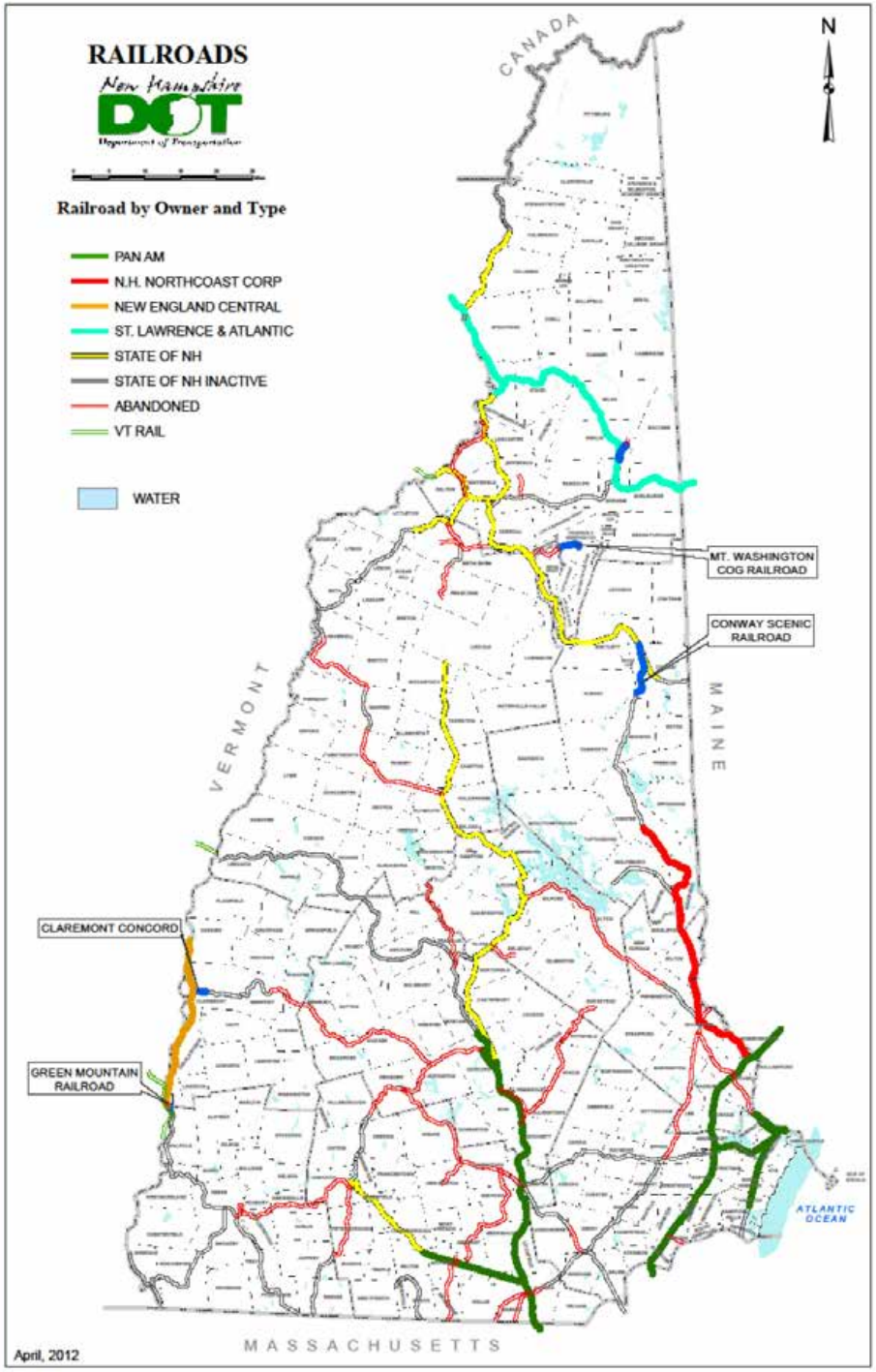
RAILROADS
New Hampshire DOT
Department of Transportation
Railroad by Owner and Type
PAN AM
N.H. NORTHCOAST CORP
NEW ENGLAND CENTRAL
ST. LAWRENCE & ATLANTIC
STATE OF NH
STATE OF NH INACTIVE
ABANDONED
VT RAIL
WATER
CANADA
N
MT. WASHINGTON COG RAILROAD
CONWAY SCENIC RAILROAD
VERMONT
MAINE
CLAREMONT CONCORD
GREEN MOUNTAIN RAILROAD
ATLANTIC OCEAN
MASSACHUSETTS
April, 2012


06/06/2013


09/27/2012


10/05/2010


10/05/2010


05/14/2013


05/12/2009


09/21/2008

Railroad Bridge Timber Study Goals

- Any alternative material tie products available
- Best species of wood to use
  - strength
  - durability
  - acceptance of preservative treatment
- Best types of wood treatment
  - best penetration = longest life span
  - least environmental impacts
  - cost of treated timbers
  - availability of treated timbers
  - ease of disposal including lowest cost
- What are other railroads and States using for timbers on their Railroad bridges
- Update Bridge Timber Best Management Practices

Results of Timber Study

- Wood is still the best railroad bridge tie material
- Best wood species to use
  - Southern yellow pine
  - Douglas fir
  - Oak
- Best preservative treatments
  - Copper naphthenate
  - Creosote
    - no leaner that 75-25 creosote/petroleum solution
    - no more than 8 lbs retention – empty cell
- Updated Best Management Practices


06/01/2011

Going Forward

- Department will still purchase wood timbers
  - Southern Yellow Pine – preferred product
  - Douglas Fir
  - Oak
- Preservative treatment depending on use location
  - Copper Naphthenate – environmentally sensitive areas
  - Creosote – other areas
- Best Management Practices updated
  - implement more material controls both at the manufacturer and upon material delivery

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