



Once regarded as just a rascal, rabies has made the raccoon a danger

On The Road In New Hampshire

Disposal of "Road Kill" Requires Special Precautions

Disposal of dead or injured animals from roads has long been one of the road crews' most unpleasant jobs. With the spread of rabies through populations of some mammal species, it has also become a potentially dangerous task.

Marsha Barden of the NH Animal and Plant Health Inspection Service has provided some helpful guidelines for handling dead animals. The key guideline is:

If it's a mammal, take precautions.

High risk animals are raccoons, skunks, woodchucks, foxes, bats, dogs, and cats. Lower risk animals are squirrels, coyotes, rabbits, fishers, goats, horses, beavers and muskrats. Mice or rats are of very little or no risk.

The rabies virus is in the saliva or brain tissue of the infected animal; not in the urine, blood, or feces. The virus will not live long outside the body; saliva that is dry is generally considered safe. Cold weather preserves

the virus inside the brain, while hot weather destroys it rather quickly. However, because the time of death of a road-killed animal is unknown, all dead high-risk animals should be treated as sources of possible exposure.

One should use a shovel or rubber gloves to handle suspicious animals. They should be double-bagged, and disposed of by burial at least three feet deep or incineration. Shovels and gloves should be disinfected with a solution of five parts water and one part chlorine bleach.

If someone is scratched by a high risk animal's teeth or claws; or gets saliva from a high risk animal in the mouth, nose, or eyes; the saliva should be washed from the site for ten minutes, and a physician consulted. Until directed otherwise, keep the suspect animal refrigerated in case it needs testing. If the animal is a cat, dog, or other domestic animal, contact the local animal control office or police department. If it is a wild animal, contact Fish and Game Dispatch at 271-3361 or Animal Damage Control (Marsha Barden) at 225-1416.

Editor's Note: Our thanks to David Wadleigh, Road Agent in Tilton, for calling this matter to our attention and putting us in contact with Marsha.

ALSO IN THIS ISSUE

Motivation Suggestions from Local Supervisors; Van Retires	2
Metric Measurement and Local Roads	3
Regional Planning Commissions in New Hampshire	4
Timber Retaining Wall Drawings	8
Publications Available	9
Videos Available	10
The Readers' Page	11
Road Business Four Year Index	12

Motivation Suggestions From Local Supervisors

In recent "Leadership Skills to Get Things Done" workshops, municipal and NHDOT supervisors listed ways they could motivate their workers. Their suggestions can apply in many towns and cities.

- Let workers give budget input
- Remove communications barriers
- Newsletter written by employees
- Team brainstorming
- Have "Boss" for a day program
- Set aside last hour of week for planning
- Delegate responsibilities
- Get workers' ideas
- Let workers take part in decisions
- Let people decide how to do their work
- Have social events
- Employee of the month
- Be flexible
- Don't criticize so much
- Provide rewards
- On-the-job training
- Training out of town
- Organize work environment
- No buzzers (paggers)
- Employee meetings with two-way communications
- Rotate leaders
- Team building
- Time off
- Reduce rules
- Find ways to deal with unions
- Include workers' desires in scheduling
- Provide adequate resources
- Show appreciation
- Family get togethers
- Additional training
- Lead by example
- Show respect & fairness
- Opportunities for advancement
- Four day work week
- Assign favorite tasks
- Circulate letters of appreciation
- Open door policy
- Don't lose temper
- Let them wear uniform jackets off job
- Provide uniforms
- Communicate with public
- Provide better equipment
- Good driving awards
- Recognition
- Crew meetings
- Share responsibilities

Best Wishes, Van



by Kathy DesRoches

A. R. Van de Meulebroecke, known as "Van" to nearly everyone, retired this spring from the UNH T² Center. Working part-time, Van traveled throughout to towns offering advice about specific questions. He also organized half a dozen Work Zone Traffic Control workshops.

This was, in fact, Van's second retirement. During a successful career with the U. S. Department of

Transportation he held positions in all levels of government. He had, in his words, "the unusual opportunity to network and interact with people from grassroots to the top levels in the State Highway Departments." In several of his federal positions, he provided valuable support to the T² Centers and the programs which fund and govern them.

Of the UNH T² Center's many programs, Van considers the Mountain of Demonstrations to be one of the most important. He believes it "has helped the Road Agents to bond and become a viable entity."

Van and his wife Connie plan to attend a family reunion in 1996 in Belgium. Van's family tree has been traced back to 1320. Van's parents emigrated from Belgium in the 1930's. He hopes his five children and five grandchildren will be able to attend.

Van's main hobby: "work, work, work." This isn't surprising from a man who retired from the federal government, worked at the UNH T² Center, and now pursues a consulting career. He likes to "hack" on his computer, a gift from first retirement, and putter around the house. He's currently remodeling a bathroom. He hasn't found time to downhill ski (one reason he moved to Alton), but has found the time to enjoy boating on Lake Winnepesaukee.

METRIC MEASUREMENT AND LOCAL ROADS

Affects Local Road Design, Construction, Maintenance and Repair

National and state governments are converting U.S. highways to the metric system. Conversion is mandated by September 30, 1996 for all direct federal and federal-aid highway construction. Because using two measurement systems is inefficient, state transportation departments will convert for other construction projects, as well as for maintenance and repair. Indeed, NHDOT officials are planning to convert department-wide.

This will surely impact local road managers and their crews. Just as state codes and design and construction practices follow national codes and practices, local codes and practices follow the state's. In other words, national and state decisions made during the transition to metric will ultimately impact those responsible for local roads. While some considerations are being made for local impacts, the decision are made to meet the needs of federal and state agencies. Nationwide conversion will occur through the economic system:

1. Businesses convert to metric so they can sell goods and services to federal and state agencies, and
2. The private sector converts in order to purchase supplies and services.

The Federal Highway Administration (FHWA) and other federal agencies are executing their plans for an orderly conversion from USCS (United States Customary System) to SI (*Le Systeme International d'Unites* -- International System of Units). They are revising design criteria, standards, and guidelines for an array of construction projects. Professional organizations have revised codes, material dimensions, and other standards (see box). In short, the primary providers of construction funds and the major professional and industry organizations are moving toward metric measurement.

One example is the FHWA's adoption of the AASHTO "Interim Selected Metric Values for Geometric Design." That publication includes metric values covering design speed, running speed, lane width, shoulder width, vertical clearance, certain clear zones, curb heights, definition of high speed/low speed highways, criteria for establishing stopping and passing sight distance, horizontal curvature, and the definition of long bridges. The FHWA regulation took effect on January 10, 1994, and AASHTO is expected to incorporate the guidelines into its 1995 edition of "A Policy on Geometric Design of Highways and Street." (Some

"Selected Metric Values" are described at the end of this article.)

continued on p. 7

PROFESSIONAL AND TRADE ORGANIZATIONS SUPPORT METRIC CONVERSION

Over a year ago Steve Stanton and Bill Moellering, Engineers of Walla Walla County, WA and Fayette County IA respectively, listed the codes, standards, professional and trade organizations that supported the metric conversion process at that time.

American Association of State Highway Transportation Officials (AASHTO), American Consulting Engineers Council (ACEC), American Concrete Institute (ACI), American Concrete Pipe Association (ACPA), American Congress on Surveying and Mapping (ACSM), American Forest and Paper Association (AFPA), American Institute of Architects (AIA), American Institute for Hollow Structural Sections (AIHSS), American Institute of Steel Construction (AISC), American Iron & Steel Institute (AISI), American Public Works Association (APWA), American National Standards Institute (ANSI), American Society of Civil Engineers (ASCE), American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE), American Society of Mechanical Engineers (ASME), American Society for Testing and Materials (ASTM), American Water Works Association (AWWA), Architectural Precast Association (APA), Associated Builders and Contractors (ABC), Associated General Contractors of America (AGCA), Brick Institute of America (BIA), Concrete Reinforcing Steel Institute (CRSI), Construction Specifications Institute (CSI), Council of American Building Officials (CABO), Hardwood Plywood and Veneer Association (HPVA), Institute of the Iron Working Industry (IIWI), Instrument Society of America (ISA). (NACE News, 94(1):2)

Regional Planning Commissions in New Hampshire

The 1991 Intermodal Surface Transportation Efficiency Act (ISTEA) established an array of programs intended to meet a variety of national transportation needs. Incorporated into its implementation is the requirement for local input into decision-making processes. To facilitate local input, ISTEA established a number of planning organizations and funded many of their functions. Because these agencies deal with transportation, and are accessible to local governments, they frequently understand the problems and situations of road managers and town officials. In New Hampshire, Regional Planning Commissions (RPCs) exist primarily to implement provisions of ISTEA, but the resources necessary to fulfill those functions can also be used to address local problems. Indeed, as noted in the following articles, RPC staffs encourage Road Agents and Public Works Directors to request their services.

Staff members of several RPCs in New Hampshire wrote these articles. The Road Business editor wishes to publicly thank them for their contributions.

The box on page 5 contains the addresses, telephone numbers, and other information about New Hampshire's nine Regional Planning Commissions.

North Country Council Regional Planning Commission

by Cathy Conway

The North Country Council (NCC) region covers 51 communities in the northern third of the state. A major emphasis is education and dissemination of transportation-related information. North Country local road managers, like their counterparts in other parts of the state, desire training but few workshops are available "above the notches." NCC attempts to be an information resource for local road managers in several ways:

- Passing along information
- Providing a second opinion on repair strategies
- Serving as a clearing house for information on what has and hasn't worked in neighboring communities
- Providing guidance on how to effectively present budget requests to a board of selectmen with programs such as Road Surface Management System and Municipal Equipment Management System

NCC also provides the regional cohesiveness necessary for an effective transportation network. This task is accomplished primarily through NCC's active transportation committee made up of municipally appointed representatives.

Two highly qualified professionals, Sharon Penney and Cathy Conway, work in the NCC transportation department. As the regional transportation planner, Sharon links town officials to the Department of Transportation (DOT) in Concord. She provides information to both towns and the DOT to fulfill ISTEA mandates

for local input on federally funded highway projects. Sharon's other information services include

- Status of a town's project in the state ten year plan
- Traffic counts on many roads
- Facts needed to lobby a legislator.

Cathy is a licensed civil engineer with over 10 years experience in New Hampshire. She provides technical assistance to towns ranging from discussion on drainage and road improvements to the design and inspection of such improvements. Cathy also has worked directly and effectively with local boards of selectmen.

The North Country Council Staff welcomes and encourages phone calls and often sees officials in their communities. The NCC staff is committed to being an information and planning resource for local road managers and other town officials.

Upper Valley Lake Sunapee Regional Planning Commission

by Ned Connell

The UVLSRPC's transportation staff has expertise in the areas of:

- Alternative Transportation Modes
- Bridge Maintenance and Rehabilitation
- Capital Improvement Program Development and Implementation
- Emergency/911 Planning and Development
- Geographic Information Systems (GIS)
- Intersection Analysis and Design

- Mapping and Analysis
- Parking Lot Design
- Public Transit Operations and Design
- Road Design and Construction
- Road Surface Management Systems
- Traffic Counts
- Transportation Modeling

The UVLSRPC provides an array of services free or at minimal cost to its members.

- Consult with and help member community officials.
- Maintain a library of regional data, maps, and planning resources.
- Serve on many legislative, state and agency policy boards.

New Hampshire Regional Planning Commissions

**Commission Name
& Address**

**Director Name
& Telephone**

North Country Council
65 Main Street
Littleton NH 03561

Mr. Preston Gilbert
444-6303

Lakes Region Planning Commission
Humiston Building
103 Main Street, Suite 3
Meredith NH 03253-9287

Mr. Kimon Koulet
279-8171

Upper Valley-Lake Sunapee Regional
Planning Commission
RR 1, Box 123, 199 Heater Road
Lebanon NH 03766-1451

Ms. Vicki Smith
448-1680

Southwest Region Planning Commission
20 Central Square, 2nd Floor
Keene NH 03431

Mr. Robert G. Nichols
357-0557

Central New Hampshire Planning
Commission
329 Daniel Webster Highway
Boscawen NH 03303

Mr. William Klubben
796-2129

Southern New Hampshire Planning
Commission
400 Commercial Street
Manchester NH 03101

Mr. Manindra Sharma
669-4664

Nashua Regional Planning Commission
115 Main Street, P. O. Box 847
Nashua NH 03061

Mr. Donald Zizzi
883-0366

Rockingham Planning Commission
121 Water Street
Exeter NH 03833

Mr. Cliff Sinnott
778-0885

Strafford Regional Planning Commission
Strafford County Courthouse
259 County Farm Road, Unit 1
Dover NH 03820-6015

Mr. Steve Burns
742-2523

- Meet with New Hampshire and Vermont state officials and agency representatives to influence policy and programs in both states.
- Answer requests for information.
- With its GIS, map and analyze member towns.
- Publish a newsletter for members about issues and events in New Hampshire and Vermont.
- Provide technical assistance to Advance Transit, Community Transportation Services, and Upper Valley Rideshare.
- Operate the Regional Transportation Advisory Committee to develop regional policies and recommendations for the Regional Transportation Plan.
- Revise and update the Regional Transportation Plan.

For more information or assistance call Ned Connell at 603-448-1680.

*Nashua and Strafford Regional
Planning Commissions: page 6*

Public agencies or organizations that serve public works directors, road agents, and/or their crews: You can inform your "clients" of who you are, what you do, how to use your services, etc. through Road Business.

Send your proposed article to us at the address on page 12.

Nashua Regional Planning Commission

by Donald Zizzi

In 1973 Governor Thompson designated the Nashua Regional Planning Commission (NRPC) as the agency responsible for transportation planning in that part of the state. NRPC offers a broad menu of services for local road managers.

- Both condensed and detailed traffic impact analyses
- Location assistance using GPS
- Map making through its computerized geographic information system
- Pavement management programming utilizing the Road Surface Management System
- Traffic volume counts and vehicle classification studies
- Regional traffic modeling, corridor studies, and intersection and network capacity analysis.

NRPC's staff recently completed pavement management programs for the towns of Pelham, Milford and Hollis. Staff members made field observations, entered the road conditions and repair costs into a computer, and compiled a technical report. In Pelham, for example, the road agent presented the technical report, with a map produced by NRPC's GIS system showing road surface conditions, to his town's selectmen to secure the funding necessary to get the job done right.

Community officials, board members, and private citizens serve as members on the commission itself. Road agents and public works directors make up NRPC's Transportation Technical Advisory Committee which decides transportation related issues, thus ensuring consistency with local programs and priorities. The Committee is also a forum for road managers to keep abreast of funding and programming changes that affect their cities and towns.

Federal legislation, especially ISTEA, has changed the way transportation projects are planned, funded, and executed. An important NRPC responsibility is to identify and rank state and local transportation projects through development of the region's Transportation Plan and Transportation Improvement Program.

**Watch for a Road Business
Special Edition
UNH T² Center Workshops
Fall 1995**

Strafford Regional Planning Commission

by Stephen Pesci

The Strafford Regional Planning Commission (SRPC) serves 17 communities in Strafford, Rockingham and Carroll counties. Rockingham RPC and SRPC staff members make up the federally designated Seacoast Metropolitan Planning Organization (SMPO). The SMPO determines regional transportation needs and develops short term transportation improvements and long-range (20 year) plans.

The SRPC staff assists local road managers and transportation planners in a number of ways. It has traffic and traffic impact study results, road standards, and transit planning rules. Its GIS capability and expertise can provide currently documented road inventories needed to prepare for Pavement Management inventory and condition surveys and can help communities purchase and install easy to use GIS hardware and software. A community can then use data from the SRPC, much of which is public domain.

The SRPC conducts about 100 traffic or turning movement counts annually. Usually provided at no cost, these counts are for short periods during the work week. Turning movement counts are taken during peak hours, typically in two hour blocks.

Commission and MPO representatives are locally appointed officials elected from within their community. A good road agent-local planner-Commission relationship contributes to higher quality planning and local issues understanding.

Spring 1995 Training Statistics

Road Scholar Workshops

Number of Courses	8
Number of Sessions	15
Total Attendance	257
Municipalities Represented	59

Non-Road Scholar Workshop

Attendance	72
------------	----

Road Scholars by Level

Road Scholar I	58
Road Scholar II	15
Senior Road Scholar	15
Master Road Scholar	10

continued from p. 3

These guidelines will become the governing measures for design of road construction and, in many instances, rehabilitation and reconstruction. So also will the codes, standards, and guidelines of other associations and governing bodies. In addition, the NHDOT plans to revise, by September 30, 1996, its design, specification, and procurement manuals to incorporate metric measurement.

All these actions will put considerable pressure on contractors and suppliers who do business with both the state and municipalities. They must either

- Use metric when doing business with the state and USCS when dealing with local road agencies and private parties, or
- Use one measurement system -- metric -- and force their customers -- municipalities -- to convert.

To the degree that contractors and suppliers apply metric measures when they serve municipalities, local road managers will have to use metric. It appears likely that, over time, suppliers and contractors will convert completely. The timing for that conversion, however, cannot be forecast. As Larry Flynn, in his excellent series in Roads and Bridges, describes some reasons for this inability to predict a timetable.

The mandate to federal agencies to make changes is clear, but no firm timetable for making the change was set forth. Perhaps more importantly, government and private sector officials say there is a lack of high-level support and commitment to metrication. As a result, federal departments are pursuing metrication with varying degrees of commitment.

While the...FHWA is among the agencies demonstrating a high degree of commitment, on the whole, the federal government has been accused of giving only lip service to the movement, and failing to spark the interest of the general public....

Congress itself is sending mixed signals about metrication. The body, which passed the Omnibus Trade and Competitiveness Act of 1988 which rekindled the federal government's metric pursuits, now has members who question the timing of the federally mandated switch to metric because of costs state and local governments will have to incur in process. The fiscal year 1995 U.S. DOT appropriations bill bans for one year state and local governments from using federal funds to erect metric road signs. (June 1995, p. 52)

Even a planned, widely accepted effort toward metric conversion would cause some confusion during the transition. Without a planned, coordinated effort, and especially without wide acceptance, there will be considerable confusion. In such situations the need for accurate information is of great importance.

The UNH T²Center, whose primary role is to provide information and training local road managers and their crews, will continue to keep abreast of developments at all levels of government. Staff members have had numerous discussions with engineers, public works directors, and road agents, as well as NHDOT officials, to determine the types and timing of needed training. They generally agree that training before Spring 1996 would be ineffective; unable to use what they learned for some time, participants would require refresher training.

In the meantime, readers with questions can call us (800-423-0060 (NH only) or 603-862-2826). We also have some FHWA "SI Metric-English Converter" slide rules available for distribution.

Interim Selected Metric Values for Geometric Design

LANE WIDTH

<u>Metric Values</u>	<u>Comparison to Current Practice</u>
----------------------	---------------------------------------

2.7 meters	8.86 feet; 1.56% less than 9 foot lane
3.0 meters	9.84 feet; 1.60% less than 10 foot lane
3.3 meters	10.83 feet; 1.55% less than 11 foot lane
3.6 meters	11.81 feet; 1.58% less than 12 foot lane

SHOULDERS

<u>Metric Values</u>	<u>In feet</u>
----------------------	----------------

0.6 meters	1.97 feet
1.2 meters	3.94 feet
1.8 meters	5.91 feet
2.4 meters	7.87 feet
3.0 meters	9.84 feet

CURB HEIGHTS

Mountable Curb:	150 millimeters max (5.91 in)
Barrier Curb:	225 millimeters max (8.86 in)

Source: AASHTO Task Force on Geometric Design. 1993. Interim Selected Metric Values for Geometric Design. Washington: American Association of State Highway Officials.