

RADAR SPEED SIGN AVAILABLE FOR LENDING

Andrew Morgan, WV LTAP

We are excited to announce that the WV LTAP equipment loan program has a new tool available for local road agencies across WV — a radar speed sign! This sign, available on a first-come basis, meets the requirements of the Manual on Uniform Traffic Control Devices for roads with speed limits up to 35 mph.

The WV LTAP's radar speed sign is similar to the trailer-mounted variety used along major routes across the state, except it is more portable and doesn't require as much space along the side of the road. The device we have mounts directly and securely to an existing u-channel sign post and operates on a battery for up to two weeks. Like the larger trailer-mounted variety, this sign displays the speed that a vehicle is moving as it approaches the sign. If a driver is speeding, the sign can be set so that the registered number blinks; thus, alerting the driver to the fact that they are exceeding the posted speed limit. In addition to recording speeds, the radar speed sign also records the number of vehicles that pass by the sign.

The equipment can be installed by one person in less than twenty minutes, assuming the post is straight and the bolts line up. The radar speed sign can easily be moved by a member of your staff to multiple locations around your jurisdiction throughout the one-month loan period.



There is no cost to borrow this equipment. However, your agency is responsible for ensuring its security and is responsible for paying for repairs or replacement in the event that the sign gets damaged. A WV LTAP employee will bring the sign to you and show you how to install it at your selected location. When your loan period is complete, you would be responsible for getting it back to us. Contact Andrew Morgan by email at Andrew.Morgan@mail.wvu.edu or by phone at 304-293-9939 to request more information on this sign, or to check on availability.

Town of Fayetteville Street Department Supervisor, Mark Reed, finishes attaching the radar speed sign to the u-channel sign post.



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Country Roads & City Streets is published three to four times per year. The purpose of this newsletter is to provide information that is beneficial to decision makers, elected officials, and roadway construction, maintenance, and management personnel.

The material and opinions included in this newsletter are those of the West Virginia LTAP and do not necessarily reflect the views of the Federal Highway Administration or the West Virginia Department of Transportation. Every effort has been made to ensure the integrity and accuracy of both original and borrowed material; however, the West Virginia LTAP does not assume responsibility for any information that is found to be incorrect.



The West Virginia LTAP is part of the National Local Technical Assistance Program, which is funded by the Federal Highway Administration. West Virginia LTAP also receives funding from the West Virginia Department of Transportation.

MISSION:

The mission of the WV LTAP is to foster a safe, efficient, and environmentally sound surface transportation system by improving skills and increasing knowledge of the transportation workforce and decision makers.

To help achieve this mission, training, demonstrations, technical assistance, and resource materials are provided.

WHY TRAIN YOUR EMPLOYEES?

Sabrina DeVall, WV LTAP

WHY MANAGERS MAY AVOID TRAINING

As a manager, perhaps you think your organization is too busy or can't afford the upfront costs that come with training. There's no doubt about it, employee training costs time and money, and often materials. It means that there will be missed production time and maybe unbillable hours, and possibly even additional costs in hiring a third party to conduct the training.

IS TRAINING REALLY NECESSARY?

You may be asking yourself if your employees were qualified when you hired them, why they wouldn't still be qualified. The answer is simple: employees often become underqualified due to changing technology, the development of new methods, or new/updated laws and regulations. A lack of training on using newer methods results in inefficient production, meaning more time and effort – thus more money – is spent performing tasks. Untrained workers also become more apt to make mistakes, which means money will be lost both in replacing materials and time spent in making corrections. Additionally, a lack of training can lead to accidents, increased injuries, and increased exposure to lawsuits.

THE CHOICE IS YOURS

Statistics have shown time and again the importance of providing proper training. So rather than rehash the numbers, let's consider it hypothetically. Imagine that you are about to board a flight and you are given the choice between two pilots. They were both hired at the same time and with the same qualifications, but only one of them has received consistent on-the-job training – the other has not. Would you not choose the trained pilot that has received continual training on both basic skills and new technologies? The same applies for your public works employees.

THE BOTTOM LINE

Training comes at a cost, period. It's up to you whether that cost will be: (1) upfront in providing your employees with the proper training they need to excel in their jobs; or (2) down the road in wasted time and material due to correcting mistakes. A trained workforce means increased production, skills, and confidence. A trained workforce also helps reduce operating costs and mistakes. It is important to emphasize the need for training with your employees and to recognize that even your veteran employees can benefit from additional training. The bottom line is, invest in your employees and you will be investing in your organization.



These participants were part of a WV LTAP hosted load securement training class, which provided both classroom and hands-on training. The participants in this photo are working as a team and learning the correct steps to take to properly secure this piece of equipment for transport. Just imagine the damage that could be done if a large backhoe was not properly secured and fell off a trailer while going down the road.

WV LTAP's BUILD A BETTER MOUSETRAP WINNERS

The 2015 WV LTAP Build a Better Mousetrap competition was announced to help collect and disseminate real-world examples of best practices, tips from the field, and assist in the transfer of technology. Entries were judged by members of the WV LTAP's Advisory Board, and we are pleased to recognize the following two winners for this year's competition. We encourage you to reach out to the community's contact or let the WV LTAP staff know if you would like to learn more about these ideas.

1ST PLACE

RIGHT-OF-WAY SPRAYER

CITY OF CHARLESTON PUBLIC GROUNDS DEPARTMENT



PROBLEM STATEMENT

The Public Grounds Department was consuming large amounts of labor, fuel, and equipment wear cutting vegetation within rights-of-ways adjacent to city streets.

DISCUSSION OF SOLUTION

Joe Gooch, a public grounds employee and part-time inventor, created a mechanism/sprayer that retrofitted the stake pockets in a full size pickup bed and could be extended out beyond guardrails directing weed killer (i.e. RoundUp) at numerous angles and projections. This sprayer was then connected to a 60-gallon water tank and pump that fed the liquid mixture through the sprayer. An additional "genius" aspect of this "mousetrap" was that the pump feeding the sprayer was wired directly to a

trailer light harness that can be easily plugged into the vehicle and controlled by utilizing the parking light circuit.

LABOR, EQUIPMENT, MATERIALS USED

- 3/4" steel gas piping, old "extend-a-mirror" supports/brackets from an old pickup truck, irrigation heads, 1/4" flat bar, 60-gallon water tank, electric pump and a 5-prong trailer wiring harness
- 1 day's labor in welding, installing the tank, and wiring the pump

COST

- 60-gallon tank \$200
- Pump \$100
- Misc. fittings \$20
- Scrap piping and metal flat bar \$0

SAVINGS/BENEFITS TO THE COMMUNITY

This sprayer saved hundreds of labor hours and eliminated treacherous working conditions (i.e. steep slopes and rocky terrain) for employees. As an example, this sprayer turned a two-man, two-day trimming job, three times a year, into a one-man, thirty-minute spraying route, two times a year.

CONTACT

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BUILD A BETTER MOUSETRAP WINNERS CONT'D

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FHWA-WV Division

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Builders Supply Assoc. of WV
Charleston, WV

Terry Hough
CTL Engineering
Morgantown, WV

Pat Parsons
Asphalt Pavement Assoc. of WV
Charleston, WV

1ST RUNNER UP

DIG-DOWN TOOL HOLDER

CITY OF HUNTINGTON SANITARY BOARD

PROBLEM STATEMENT

When going to start work on dig-downs to repair sewer lines, it is difficult to find a place for all the equipment needed without having to use additional equipment. So, storage is difficult.



DISCUSSION OF SOLUTION

When setting up tools needed on dig-down trailers, the crew leaders Seth Rardin and Brandon Queen looked at placement of all items and how space could be used wisely and everything kept secured and safe.

LABOR, EQUIPMENT, MATERIALS USED

We had eight-inch diameter plastic pipe sections that had already been cut at prior jobs and bungee cords at the shop. This took about two hours to complete.

COST

- Bungee cords \$15.88
- Pipe already on hand

SAVINGS/BENEFITS TO THE COMMUNITY

The savings comes from not having to have additional equipment to haul all needed tools and all tools are secured

and safely in place to avoid having them fall off the truck.

CONTACT

Martin Shelton • Phone (304) 360-1769 • Email mshelton@huntingtonsb.com

The entries for the WV LTAP Build a Better Mousetrap Competition describe equipment and practices developed by employees of public works agencies for use within their organization and community. The equipment and practices described in these two winning entries have not necessarily been tested and/or approved to meet engineering design or safety standards. Agencies considering adopting the practices described in these winning entries should first verify the practice is appropriate and safe for their agency's use. Those who decide to make their own right-of-way sprayer need to make sure they are complying with herbicide application regulations and laws. The WV LTAP is not responsible for damage to equipment or facilities, or for bodily injury as a result of reproducing and/or using the equipment or practices described herein.

STAY SAFE FROM VENOMOUS SNAKES

Ashley Peterson, WV LTAP

The summer season's warmer weather increases the possibility of coming into contact with venomous snakes while working outdoors. According to the West Virginia Division of Natural Resources, there are 20 species of snakes found in West Virginia; however, only two of these species are venomous – Northern Copperheads and Timber Rattlesnakes. Although these snakes are generally not aggressive, you could potentially be bitten if they are surprised or feel threatened. Being able to identify venomous from nonvenomous snakes, following recommended bite protection and prevention practices, and knowing what to do if bitten can help keep you safer while working outdoors. The information and recommendations detailed in this article are from the Centers for Disease Control and Prevention (CDC), Occupational Safety and Health Administration (OSHA), and the West Virginia Division of Natural Resources.

IDENTIFYING TIMBER RATTLESNAKES AND NORTHERN COPPERHEADS

Rattlesnakes are the only venomous snakes with a rattle at the end of their tail. Their background color ranges from yellow to dull grey with brown or black chevron-shaped markings running across their bodies. Timber Rattlesnakes have the potential to reach six-feet in length once they are fully grown. They are typically found in wooded, rocky, mountainous regions throughout West Virginia.

Northern Copperheads have dark copper-colored heads and a pinkish stomach. Their body background color is a reddish brown with dark hourglass-shaped markings running across their bodies. Once fully grown, Northern Copperheads average two-feet to three-feet in length. Like the Timber Rattlesnake, Northern Copperheads are also typically found in wooded, rocky, mountainous regions throughout West Virginia.



How many Timber Rattlesnakes do you see in this photo? If you said three, you are correct! With their coloring, timber rattlesnakes are often hard to spot in wooded and rocky areas. This picture was taken in June 2013 in the Maysville Gap area of West Virginia.

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STAY SAFE FROM VENOMOUS SNAKES CONT'D

If you are able to see a snake in your path, determine its identity from several feet away as snakes can strike one-half of their body length.

BITE PROTECTION & PREVENTION

The following are recommendations for protecting yourself from snakes and what to do if you are bitten. These recommendations are from the Centers for Disease Control and Prevention (CDC) and the Occupational Safety and Health Administration (OSHA).

- If you see a snake, step back and allow it to proceed. Do not try to handle any snake.
- Watch where you place your hands and feet when removing debris. If possible, don't place your fingers under debris you are moving.
- Wear heavy gloves.
- Wear boots at least 10 inches high.
- Watch for snakes sunning on fallen trees, limbs, or other debris. Note that snakes tend to be most active at night and in warm weather.
- Stay away from tall grass and piles of leaves when possible.

If bitten...

- Note the color and shape of the

snake's head to help with treatment.

- If you are with someone who has been bitten, keep bite victims still and calm to slow the spread of venom, in case the snake is poisonous. Lay the person down so that the bite is below the level of the heart, and cover the bite with clean, dry dressing.

- Inform your supervisor.
- Seek medical attention as soon as possible.

DO NOT

- Pick up the snake or try to trap it
- Wait for symptoms to appear
- Apply a tourniquet
- Slash the wound open with a knife
- Suck out the venom
- Apply ice or immerse the wound in water
- Drink alcohol as a painkiller
- Drink caffeinated beverages

WebMD has a few additional recommendations for persons to follow if bitten by a venomous snake.

- If you are not sure what type of snake bit you, take a picture of it. But do not do this if it will delay treatment or put someone at risk for more bites.

- It is important to remember that a snake only injects part of its venom with each bite, so it can still hurt you after the first strike. And a dead snake, even one with a severed head, can bite and release venom by reflex action for up to 90 minutes after it dies.

- Use a pen to mark the edge of the swelling around the bite every 15 minutes. This will help your doctor estimate how the venom is moving in your body.

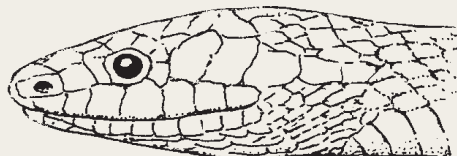
- Remain calm and try to rest quietly. Antivenom is given as soon as a doctor determines it is needed, usually within the first four hours after the snakebite.

For more information regarding venomous snakes in West Virginia, visit the

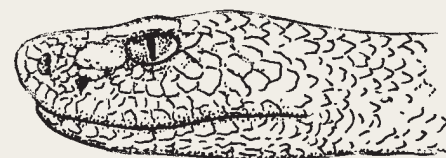
- CDC's website at <http://www.cdc.gov/niosh/topics/snakes/>
- OSHA's website at https://www.osha.gov/Publications/rodents_snakes_insects.html
- West Virginia Division of Natural Resources website at <http://www.wvdnr.gov/publications/pdf/files/snakesofwv05.pdf>
- <http://www.webmd.com/first-aid/tc/snake-and-lizard-bites-home-treatment>

In addition to observing a Timber Rattlesnake and Northern Copperhead's coloring and markings (and a Timber Rattlesnake's rattle), a helpful tip for deciphering nonvenomous snakes from venomous snakes is to look at their eyes; venomous snakes have elliptical-shaped pupils, like a cat's eye, while nonvenomous snakes have round-shaped pupils.

Non-Venomous



Snake Images are Courtesy of the WV DNR



Venomous

ROADS SCHOLAR II GRADUATES

Congratulations to the following graduates of the WV LTAP Roads Scholar II Program! Great job!



Larry Alt, WVDOH-D5



William Barger, WVDOH-D5



Randy Sigley, WVDOH-D5



Ken Clohan WVDOH-D5

The WV LTAP Staff is also proud of the following three WVDOH-D5 employees, who are not pictured, for becoming RS II Graduates!

**Dennis Neely
Charles Morton
Mark Trenter**

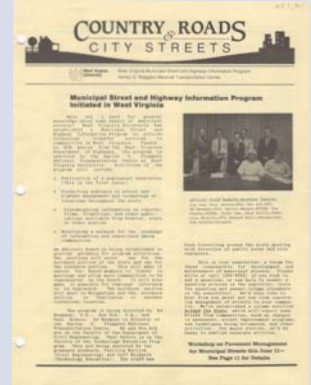
IN PRINT FOR 30 YEARS!

This summer marks the 30th year for the *Country Roads & City Streets* newsletter!

While the format has definitely changed over the years, we are still proud of the articles, technical briefs, stories, and other information we have been able to share since this first edition.

We've opened the vault, or in our case, the plastic tote where old copies of our newsletters are stored, and we've loaded a digital copy of the very first newsletter on to our website. Check it out, and let us know what you think!

As we look to the future, if you have ideas for article topics or suggestions for our newsletter, please let us know.



APPLY FOR A 2015 WORK ZONE SIGN PACKAGE



The WV LTAP staff is pleased to announce that we are going to be awarding five or six work zone sign packages this fall. The work zone sign package includes portable work zone signs, sign stands, barricades, drums, cones, "Stop/Slow" paddles, ANSI Class III full-coverage safety vests, and whistles with lanyards. Each local agency also receives a free, work zone safety training course offered by the WV LTAP. The total value of this package is over \$3,000.

To apply for this package, visit our website at wvltap.wvu.edu or contact Ashley at 304-293-9930 to have an application mailed to you. This program is available for local level public works departments in West Virginia.

UPCOMING FALL WV LTAP CLASSES



The WV LTAP has several classes scheduled for this fall and we are working to schedule additional ones. Our website is a great resource for information on all of our classes. Under our training tab, we include descriptions of the classes, registration information, location information, and so forth. Our calendar of events is a quick way to see what training we have scheduled and we also include information on upcoming classes on our main page. Recently, we added a new RS II class, Principles of Communication, to our regular class offerings. Contact a WV LTAP staff member to get a training class scheduled at your location or to learn more.

September 29

Snow and Ice Control Workshop • Summersville Arena and Conference Center, Summersville, WV

September 30

Principles of Paving • WVDOH-D3, Parkersburg, WV

October 1

Unpaved and Gravel Roads: Common Maintenance Practices • South Branch Inn, Moorefield, WV

October 8

Preventing Runovers and Backovers and Roadway Safety Plus • Wheeling Park, Wheeling, WV

November 3

Introduction to Asphalt Technology • WVDOH-D5, Burlington, WV

November 4

Winter Maintenance • WVDOH-D5, Burlington, WV

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The WV LTAP encourages you to share this newsletter with others or direct them to the electronic version on our website wvltap.wvu.edu.

- Road Supervisors
- Elected Officials
- Public Works Department
- Road Crew
- Managers
- City Engineers
- Others