



Running on Empty

Managers learn to deal with less Highway Users Tax funding

By Peter Anzalone



Rising fuel prices have hit local governments in several areas, including critical infrastructure maintenance,

public transportation, and heating, cooling and powering public facilities. Yet high fuel costs also are affecting local governments by reducing the Highway Users Tax Fund (HUTF), a tax on motor fuel and vehicle licensing fees that states collect and disperse to cities and counties.

Sticker shock at the gas pump is causing consumers to change their driving habits, and less driving means consumers are pumping fewer gallons of gas, which translates to less money for public works operations that rely heavily on HUTF. HUTF rates vary from state to state but are generally around 15 cents to 20 cents per gallon of gas. Because HUTF funds generally are earmarked for roadway maintenance and improvements, they have become the backbone of roadway repairs and enhancements for cities, counties and state departments of transportation. “[HUTF] funds our whole department,” says Bill Clark, assistant road and bridge superintendent for Grand County, Colo. “Out of our \$7 million budget, only about \$280,000 comes from property tax revenue.”

Transportation infrastructure managers at all levels of government are grappling with how to cut, and for many cities and counties, aesthetics are the first to go. “In cutting services, we try to cut things like street sweeping, which is nice but not really required,” says Chris Jacobson, infrastructure maintenance engineer for Lakewood, Colo. “Streets may not look as nice, but it's not a safety issue.”

After those types of cuts, which projects to trim can become a more difficult decision. Managers can ask for recommendations from city councils and county commissioners, or department staff members. “We are looking at what can we not pave and what can we not chip,” says Tammi Crawford, field coordinator for Rout County, Colo., Road and Bridge. “We go and eyeball [the roads] and decide what we can get away with.”

For empirical data, some decision-makers rely on reports generated by work management software that tracks

time, materials and equipment invested in roads, bridges, facilities and improvement projects. Based on that information, users can identify worker productivity levels and inefficiencies in equipment usage.

Some work management applications also can help with cost-projections for work plans. They can help answer questions such as, “What if we cleaned our streets twice per year instead of four times per year?” or, “What if we only plowed snow on arterial roads versus secondary and/or tertiary roadways?” Some projects do not need to be cancelled, but merely modified. Mesa County, Colo., Road and Bridge, for example, is overlaying 21 miles of road this year rather than the annual goal of 35 miles. For next year, Kevin Holderness, the county's engineering coordinator anticipates overlaying only four miles, unless special funding comes through. Meanwhile, Johnson County, Wyoming, is looking at gravel overlay instead of complete reconstruction of certain roads.

By relying on all available resources from people to software, managers can gather the information they need to make the best decisions for residents, regardless of how high or low gas prices may go.

Reference: *American City & County*, December 2005

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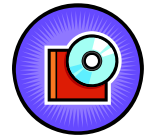
DVD on Highway Safety and Trees Available from FHWA

The new DVD available from the Federal Highway Administration, *Highway Safety and Trees: The Delicate Balance*, offers sound advice when discussing roadway design—we should look at finding a balance of good engineering judgment and landscape design, particularly when trees come into the equation.

From the DVD's description on its case: "[T]rees are the single most commonly struck objects in serious roadside crashes. Vehicle collisions with trees account for more than 4,000 fatalities and 100,000 injuries each year...

"The Federal Highway Administration produced this DVD to further explore the issue of a safe placement of

trees along our country's roadsides. The video stresses that the design of highway projects should be a cooperative effort involving the highway agency, concerned communities, organizations, and individual citizens."



To get a copy of the DVD, *Highway Safety and Trees: The Delicate Balance* (FHWA-SA-06-03), you may send an email to:

report.center@fhwa.dot.gov or
fax a request to (301) 577-1421.

Also, check out the FHWA Road Departure Safety web site online at <http://safety.fhwa.dot.gov/>

Hard Hats



There is always someone who objects to hearing a hard hat. Hard hats are an important piece of personal protection equipment. To get the most protection, secure hard hats and adjust the webbing so the wearer can bend over without the hat falling off. Use chinstraps. Head injuries often occur after hard hats are knocked off.

Periodically, check the shell for cracks and the suspension system for cracking, tearing, or fraying. Never paint, drill holes, or use solvents on a hard hat as they weaken the shell. As a general rule, replace the entire hat every two years.

Complaints and Advice

My hard hat is too hot in the summer. Tests indicate that temperatures inside a hard hat are 12 degrees cooler than a baseball cap. The air between the shell and the suspension create ventilation and the hat's surface reflects the heat.

My hard hat is too cold in winter. Liners that cover the ears are available

for use on cold days. Do not wear hard hats on top of hats or parkas and do not remove the suspension.

My hard hat is too heavy and strains my neck. The weight of a hat is properly worn and maintained should go unnoticed. The average hat weighs 13 ounces and a head weighs about 13 pounds.

Check for the official rules about safety and protective clothing. Wear a hard hat when working:

- On or adjacent to the traveled portion of the roadway.
- In contractor's hard hat zones.
- While operating heavy equipment.
- Where there is danger of head injury from impact, and/or falling or flying objects.
- Where there is danger of contact with a high voltage electric source.

Reference: University of New Hampshire T² Center, *Road Business*, Winter 2005, Vol. 20, No.4

New LHTAC Officers



On July 14, 2006, the quarterly meeting of LHTAC was convened and the following members were elected to their respective offices:

Thomas Limbaugh, Chairman,
Mayor, City of Fruitland

Clark Kauffman, Vice-Chairman, Commissioner, Filer Highway District

J.R. Van Tassel, Secretary/Treasurer, Commissioner, Nez Perce County

LHTAC Staff News

Christine Tippin has joined the LHTAC staff as the new Financial Officer. Please help us welcome Chris to LHTAC and the LHJ families.

Our previous Financial Officer, Kandi Jones, has resigned to pursue a college degree.



Local Rural Highway Investment Program 2008 Application

LHTAC is happy to say that we are gearing up for another round of the Local Rural Highway Investment Program (LRHIP) applications! This round of applications will be for fiscal year **2008** grant funds.

The applications were mailed to the qualifying Local Highway Jurisdictions September 15, 2006. **The deadline for submitting the applications to LHTAC's office is November 16, 2006 by 5:00 p.m., Mountain Time.**

Keep an eye open for the brightly colored cover and get to work on your application as soon as possible.

Here are some helpful hints for completing a successful application: 1) Complete and mail your application early so that you don't miss the deadline. 2) Make

sure the application includes the proper signatures. 3) Be sure to include all attachments and copies requested.

Feel free to contact Jim Zier at LHTAC's office if you have any questions:

1-800-259-6841, 344-0565,
jzier@lhtac.org.



It's All In A Name

It's hard to imagine a street with a crazier name than Bucket of Blood Street in Holbrook, Arizona. But according to a recent poll by Mitsubishi Motors, there are plenty.

The top 10 list included:

10. Tater Peeler Road in Lebanon, Texas.
9. The intersection of Count and Basie in Richmond, Virginia
8. Shades of Death Road in Warren County, New Jersey
7. Unexpected Road in Buena, New Jersey
6. Bucket of Blood Street in Holbrook, Arizona
5. The intersection of Clinton and Fidelity in Houston, Texas
4. The intersection of Lonesome and Hardup in Albany, Georgia
3. Farfrompoopen Road in Tennessee (the only road up to Constipation Ridge)
2. Divorce Court in Heather Highlands, Pennsylvania
1. Psycho Path in Traverse City, Michigan

The order of the top 10 was voted on by visitors to TheCarConnection.com in February. All the roads were verified by the website, although some are private and hard to find.

Reference: Roads & Bridges, April 2006

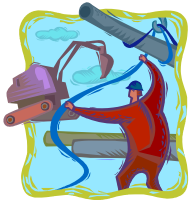
*** In an effort to reduce paperwork and cost, LHTAC is offering to provide this publication in a digital format. If you would prefer a digital copy of this publication instead of a printed copy please notify us by letter or E-mail. Please send your request to Cindy Stewart at our regular mail address or E-mail her at: cstewart@LHTAC.org***

Safety — Our Daily Responsibility

by Larry L Wiess, Central SD LTAP, Tech Assistance Provider in Cooperation with Cliff Reuer, SD DOT

I would like to share some lessons I have learned over 36 years in transportation and in the military regarding safety.

You may ask: What in my background allows me to address the subject of safety? As a National Guard Project Officer and commander at four levels, the safety and care of my personnel was all important. Without the troops we couldn't accomplish the mission. Whether driving, operating equipment or using hand tools, safety briefings were necessary for everyone.



As most of us do, I also have personal experiences. For example, while driving home from drill about midnight on I-90, I woke up on the median in-slope while gravel was hitting the bottom of the vehicle. Fortunately, I got safely back on the road. *Lesson Learned* — Don't drive tired.

As a Department of Transportation (DOT) Area Engineer, responsible for construction and maintenance, I faced the risk of accident, injury, or death. Here is some guidance for working around construction operations: Don't park in congested areas. Be observant of construction traffic and the public traveling through the project. Always be cautious around equipment, especially in and around plant operations. Wear a hard hat during overhead operations. Don't drive lengthy distances back to the office in a tired condition after long days. These were all items for safety briefings.

One experience stands out during my time as Sioux Falls DOT Area Engineer. Two young engi-

neers were killed by a four-time DUI driver while returning from their project. Our jobs are difficult, but never as difficult as going to the emergency room and telling a mother and father their son had been killed and then waiting to tell a pregnant wife her husband had been killed. *Lesson Learned* — We need to continue to work toward getting drunk drivers off the road!

I mentioned hard hats earlier. A project engineer was measuring pile driving on a bridge construction project. A brace at the end of the crane boom broke and dropped approximately 40' hitting the project engineer on the side of the hard hat and shoulder. Result: a broken collar bone. But, without the hard hat, most likely it would have been death! *Lesson Learned* — Wear head protection when working under overhead equipment!



Here is some guidance from my experience for those working on maintenance operations:

Always remind employees they may be working adjacent to an open lane of traffic with trucks traveling at 55 to 65 m.p.h. within three to four feet of them. Watch for the sleepy or inattentive driver, or those who think they can read the newspaper while traveling 55 to 70 m.p.h.!

A DOT flagman was killed by a driver who drove through a maintenance work zone while reading at 80 m.p.h. Stupid and irresponsible? Yes! Does it happen? Yes! Was this a fatality? Of course!



In a pothole patching maintenance operation in rolling terrain (South Dakota Highway 42 before reconstruction), a flagman was stationed on top

of a rise approximately one-quarter mile in advance of where the crew was working. Due to sight distance, another flagman was located a few hundred feet in advance of the work crew. An elderly and inattentive driver drove past the first flagman without slowing and continued toward the second flagman. The first flagman yelled, getting the attention of the second flagman. He also yelled getting the attention of the crew who scattered for the ditch. The driver hit the corner of the maintenance truck, but no individuals were struck. *Lesson Learned* — Never underestimate the importance and value of alert flaggers and use of a shadow vehicle.

Always emphasize care while driving in snow and ice control operations. The work must be performed in the worst surface and visibility conditions with large and expensive equipment. Sometimes it involves long hours to ensure the safety of the traveling public. Our monthly safety meetings with supervisory personnel included use of all safety devices, especially seat belts.

Checking trucks in the yard and finding seatbelts covered by overshoes, coveralls, and a grease gun, one can only conclude safety rules were not being followed. A crash caused by a garbage truck pulling out in front of one of our foremen resulted in injuries to knees and chest. Was a seatbelt in use? No. When asked at the next safety meeting if he now wears a seat belt the answer was "Yes!" *Lesson Learned* — Wear seatbelts and use all other safety devices!



Supervisors: Do any of these experiences sound familiar to you?

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Based on the mentioned experiences, I will address the following issues which should be part of our daily responsibility:

Driving: Pay attention and drive defensively; others may not. They may be intoxicated or impaired. Cell phone use today is as common as putting on our watch; we don't leave home without it. However, the distraction of talking on a cell phone, especially if it is hand held, can contribute to an accident. Pull over on the shoulder or off the street and concentrate on the conversation.



We have had numerous accidents (and some fatalities) in South Dakota recently involving young (14-16 years old), inexperienced drivers. As Public Safety Commissioner in the City of Pierre, I am especially concerned since a number of them were in our city. If you have a young driver in your family, stress the importance of driving safety. I know it is difficult — my wife and I raised five — but it could save a young person's life. Stress wearing seatbelts.

Highway and Street Signs: Take a close look at signs both in daylight and in darkness. A sign that looks good in daylight may not be reflective at night. A method I used to review construction signs at night was a tape recorder. You can drive down the



road and note the sign, location and condition without stopping to write the data. Video taping or shooting photos of construction signing for documentation purposes can

prove valuable if there is an accident. Remember, it takes two people to video tape a project: one to drive and one to operate the camera!

Check for fading or cracking of reflective sheeting. This may lead to loss of reflectivity. Sign placement is extremely important for effectiveness. Use the Manual on Traffic Control Devices (MUTCD) for guidance on vertical and horizontal location. Curves should be adequately marked especially for nighttime. Directional arrows can be more effective than delineators due to larger target value. Bridge object markers receive abuse by farm machinery. Check them for reflectivity and alignment.

Control at blind intersections of county and township roads and some city street intersections is a necessary safety measure. Are trees blocking sight distance? Can they be trimmed back? Are they obscuring STOP signs? Do crops obscure sight distance during part of the year? If so, we may be able to work with the farmer to avoid planting into the corner of the field. We may also consider using "yield" or "stop" signs in those locations where other methods are unworkable.

Road Safety Audits: This method identifies safety hazards and possible corrections by use of a team of experienced transportation and safety people from outside the entity (a new set of eyes) to review problem routes.

Warning Lights: This came to mind recently after having been on hazardous roads and observing SD DOT's warning lighting for snow and ice operations. The DOT has significantly enhanced flashing lights on snow plow and sander trucks. Their need is much greater due to interstate and high traffic volume operations. However, counties, cities, and townships should monitor the visibility of flashing lights on their equipment.

Check in both day and night con-

ditions and in blowing snow in rural environments. That small strobe on the cab may no longer be adequate. Please evaluate this for your driver and the public's protection.

Human Factors: Remember that the emotional and financial stress of accidents, injuries, or a fatality, creates a significant impact on the workplace and families. We need to "think safety" on a daily basis for our personal and the public benefit.



A Final Reminder: Conduct safety meetings; focus on problem areas and/or changes in equipment and seasons. We sometimes need a reminder to change driving habits when winter arrives. The four-wheel-drive vehicles lying on their side or top in the median or on the bridges of I-90 while driving in icy conditions on Sunday, November 27, 2005, was a powerful reminder for me. Discuss near misses at safety committee meetings to develop strategies to avoid the potential for accident and injury.

Take care — be safe!



Reference: South Dakota LTAP, *The Connection*, Volume 18, Number 4, Winter 2005



THE BRICK

A young and successful executive was traveling down a neighborhood street, going a bit too fast in his new Jaguar. He was watching for kids darting out from between parked cars and slowed down when he thought he saw something. As his car passed, no children appeared.

Instead, a brick smashed into the Jag's side door! He slammed on the brakes and backed the Jag back to the spot where the brick had been thrown.

The angry driver then jumped out of the car, grabbed the nearest kid and pushed him up against a parked car shouting, "What was that all about and who are you? Just what the heck are you doing? That's a new car and that brick you threw is going to cost a lot of money. Why did you do it?"

The young boy was apologetic. "Please, mister...please, I'm sorry but I didn't know what else to do," He pleaded. "I threw the brick because no one else would stop..." With tears dripping down his face and off his chin, the youth pointed to a spot just around a parked car. "It's my brother," he said. "He rolled off the curb and fell out of his wheelchair and I can't lift him up." Now sobbing, the

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Sight Distance Charts Are Important References

Sight distance guidelines can help communities ensure that their roads are safe for the motoring and walking public. Sight distance guidelines can help communities promote adequate spacing of residential and commercial driveways for motorists in making decisions such as stop, slow down, turn, enter a traffic stream from a driveway or public road, or merge into traffic. Adequate sight distance allows motorists the time they need to avoid crashes and conflicts. Adequate sight distance will help keep roadways operating safely and smoothly.

Safe sight distances vary, so make sure to refer to professional engineers when using them. The safe sight distance for low and medium volume driveways, for example, should be large enough to allow vehicles on the arterial to slow down to a reasonable speed, but not stop, to avoid colliding with vehicles exiting a driveway. The

safe sight distance for high volume driveways should be higher to allow a greater margin of safety. Stopping sight distance increases on downgrades and increases on upgrades. The 2003 Edition of the *Manual on Uniform Traffic Control Devices* (MUTCD, page 4D-13) displays the following chart. Note that these are minimum sight distances.

<u>85th Percentile (posted) speed</u>	<u>Minimum Sight Distance (feet)</u>
20	175
25	215
30	270
35	325
40	390
45	460
50	540
55	625
60	715

Reference: Vermont Local Roads News, June 2006

Study Shows Rural Roads Are Nation's Most Deadly



The death rate for motorists on rural roads was more than two times the rate for driving on all other roads in 2003, a study shows.

Safety improvements on rural, non-interstate routes have lagged, although driving on all U.S. roads and highways has become less dangerous since 1990, according to an analysis of federal highway data by The Road Information Program.

"The nation's rural roads are exposing rural residents and visitors to an unacceptable level of risk," says William Wilkins, executive director of the highway information research organization in Washington, D.C. "We know how to make rural roads safer. What is missing is adequate funding for road safety projects that will save numerous lives."

Among the study's finding: 52 percent of the 42,301 average annual traffic deaths

for 1999 through 2003 occurred on non-interstate rural routes, although travel on those roads represents just 28 percent of miles driven.

The death rate on rural roads in 2003 was 2.72 per 100 million miles driven, compared with 0.99 on all other roads.

From 1990 through 2003, the death rate on all routes excluding rural roads decreased 32 percent. The death rate on rural roads declined by 21 percent during the same period.

Many rural areas, particularly in the West and South, are gaining population, but roads in those areas are more likely than urban roads to have features that make driving hazardous. They include narrow lanes, limited shoulders and sharp curves.

Only 3 percent of traffic deaths on rural roads from 1999 through 2003 resulted from one driver trying to pass another.

Reference: USA Today, March 3, 2005

Meth Waste: What to Watch For In the Right-of-Way

There are several methods for manufacturing methamphetamine. Each method involves slightly different materials and equipment that may be dumped.

Be suspicious if you come across the following:

- **Anything that could be used as a waste receptacle: a plastic garbage bag, backpack, duffel bag, cooler (even the trunk of a car) •**
- **A patch of dead grass or dying vegetation, which could signal the presence of polluting materials•**
- **A strong smell of cat urine, rotten eggs, or ammonia**



A combination of any of these items:

- empty blister packs or boxes of cold or allergy pills containing ephedrine or PSE (Sudafed®, Contac® Non-Drowsy, or generic versions of these)
- aluminum foil
- blenders
- buckets
- butane torches
- cheesecloth, coffee filters, funnels
- duct tape, clamps
- gas cans
- glass jars, flasks, bottles, dishes
- hot plates or camp stoves
- paper towels
- plastic cartons
- propane, portable propane tanks
- rubber gloves
- rubber or plastic tubing
- strainers
- syringes
- thermometers
- thermoses

Any of the following chemicals:

- acetone
- anhydrous ammonia
- car batteries
- cat litter (may be in a bag or container with a plastic hose, called a "death bag")
- charcoal lighter fluid
- denatured alcohol
- drain cleaner (sulfuric acid)
- Epsom salt or salt
- freon
- HEET gasoline additive
- iodine
- isopropyl or rubbing alcohol
- kerosene
- lacquer
- lithium batteries
- match books for washed-off striker strips
- matches for red phosphorus
- mineral spirits
- muriatic acid
- paint thinner (toluene)
- Red Devil lye
- starting fluid (ether)
- trichloroethane (a common gun-cleaning solvent)

Reference: Technology News, May-June 2006

New Zealand: Guidelines for Multi-Lane Roundabouts

Land Transport New Zealand has published guidelines to assist designers in providing appropriate pavement markings for existing and proposed multi-lane roundabouts in New Zealand.



To view the guidelines, visit: www.transfund.gov.nz/roads/docs/guidelines-multi-lane-roundabouts.pdf.

Reference: ITE Journal / December 2005



.....Continued from Page 6

boy asked the stunned executive, "Would you please help me get him back into his wheelchair? He's hurt and he's too heavy for me."

Moved beyond words the driver tried to swallow the rapidly swelling lump in his throat.

He hurriedly lifted the handicapped boy back into the wheelchair, then took out a linen handkerchief and dabbed at the fresh scrapes and cuts. A quick look told him everything was going to be okay. "Thank you and may God bless you," the grateful child told the stranger.

Too shook up for words, the man simply watched the boy push his wheelchair-bound brother down the sidewalk toward their home. It was a long, slow walk back to the Jaguar.

The damage was very noticeable, but the driver never bothered to repair the dented side door. He kept the dent there to remind him of this message, "Don't go through life so fast that someone has to throw a brick at you to get your attention!" God whispers in our souls and speaks to our hearts. Sometime when we don't have time to listen, He has to throw a brick at us.

Author Unknown

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CALENDAR OF EVENTS

October 12-13	The Essentials of OSHA Compliance 2006	Boise, ID
October 17, 25	Management Skills for First-Time Supervisors	Boise, Lewiston, ID
October 19	The Boise Management Conference	Boise, ID
October 25-26	Microsoft Windows Server 2003	Boise, ID
November 7-8	Idaho Association of County Engineers & Road Supervisors Annual Meeting	Coeur d'Alene, ID
November 8-10	Idaho Association of Highway Districts Annual Convention	Coeur d'Alene, ID
December 15	Local Highway Technical Assistance Council Meeting	Boise, ID

If you are interested in additional information regarding any of the above referenced meetings and/or training sessions, please contact LHTAC at 1-800-259-6841 or 208-344-0565.