

2013

# LARIMER COUNTY ROAD AND BRIDGE ANNUAL REPORT

Developing and Delivering Innovative Infrastructure  
Maintenance and Improvement Solutions Today, for Tomorrow



Article by:  
Dale L. Miller, Road & Bridge Director



Rist Creek overtopping CR 54E and CR 25E, Photo by Rob Kennedy

## Road and Bridge and The Flood of 2013

Rather than my routine introduction welcoming the reader to the recurring Road and Bridge Annual Report, I believe it more fitting this year to provide a most appropriate insight to our Department's response to the 2013 flooding.

The Road and Bridge Department leapt into action before most citizens and/or Larimer County staff were even aware that disaster was about to strike. Thanks to a very observant and conscientious employee (Justin Hersh, our Materials and Equipment Group Manager) returning home from big game hunting, we had an early alert. Justin's call to me late the evening of September 11, 2013 regarding water crossing over CR 72 east of CR 21, proved in short order that immediate action was necessary. So went the night, as calls came from throughout the County and our response began. Thanks to our employees' attentiveness, intuition and our unparalleled quick response, we had a bit of a head start on combating what, unbeknown to us, we and others would be dealing with for months and years to come.



CR 23H and Hwy 34, Photo by Jim Frick

Within a handful of hours, the Larimer County Emergency Operations Center (EOC) was organized for action (within the confines of the second floor of the Sheriff's Administration building). So there we were. Larimer County's inter-departmental cooperation showed bright in these hours. Hours turned into days, weeks and months as our response saved and protected lives, public infrastructure and private properties.

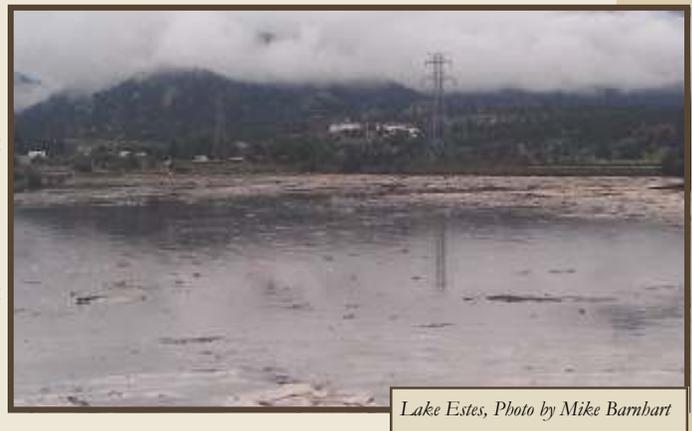
As the prognosis worsened, contingents of FEMA and every other State, Local and Federal agency imaginable arrived to establish and man an Incident Command Post (ICP) at the

Larimer County Fairgrounds Complex (The Ranch). Inter-agency commitments became the shining light. Multiple daily briefings of conditions, accomplishments and planning became the routine for all concerned for 16+ hours per day, seven days a week. It's fair to say that this is what overall disaster management and response requires.

Our response for the next several months was emergent in nature. Few probably recognize the everyday 24/7/365 routine of the typical Road and Bridge Department employee. Emergent response is our middle name. Beyond even the typical, we immediately knew that with current weather conditions, we had a firm grasp on "the real deal". Both field and administrative oriented men and women rose to the occasion.

Adding to our department's difficulties was the fact that Rick Johnson (our Paved Roads Group Manager) became stranded in the Estes Park area as state and federal highways washed out in all directions from him

(and he was scheduled to start his annual big game hunt the next day). The good news is that he was both safe and able to be "our man Flint" for a week or more until Estes Park access was restored – as lengthy and as time consuming a drive as it became. In addition, we had recently had our Estes Park Team Leader and another employee in the area resign to retirement and other interests. We really did have to wonder if we were jinxed!



Lake Estes, Photo by Mike Barnhart

### On The Cover:

An ironic Low Water Crossing Sign on County Line Rd., Photo by Jim Frick



It didn't take long for us to recognize that we were not. Volunteers to the rescue! We asked of our employees and they responded quickly and positively. We responded to them by providing transportation with pay to and from the Estes valley (for a period of time this was a four hour

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A trip to Estes Park became a 4 hour trip one-way



one-way trip), hotel rooms, meals, guaranteed minimum work hours and additional paid leave considerations after their "tour of duty".

The widespread devastation left in the wake of the flooding necessitated the Road and Bridge Department making significant emergency road repairs in numerous locations. One such case in point was the emergency restoration of CR 52E (the Rist Canyon Road) to provide access so that our contractors could begin work on CR 27 (the Stove Prairie Road) between SH 14 (in the Poudre Canyon) and CR 44H (the Upper Buckhorn Road). The flooding had left this area inaccessible while CDOT struggled to re-open SH 14. At the other end of the county, we supported our contractors with material hauling to their efforts to remedy washed-out bridges along the Little Thompson River south of Berthoud and to the destroyed alignment of CR 47 leading from US 36 to the Big Elk Meadows subdivision, southeast of Estes Park.

Our actions were not constrained to our field of operations. None of our successes could have been possible without our administrative staff rising to the occasion. As the days, weeks and months have worn on, we are proud to have taken a lead in response. The ladies and gentlemen of Larimer County Road and Bridge Department have been, and continue to be, proud contributors to the safety and well being of our citizens and travelers every step of the way.

Road & Bridge needed to complete work on CR 52E before the contractors could begin on CR 27 and CR 44H, Photo by Ted Jensen



R&B working on the low water crossing on CR 27, bottom of the Narrows, Photo by Brent Harris

### Employee of the Month October 2013



**Justin Hersh**  
**Road & Bridge**

"On a day to day basis, Justin is a Functional

Group Manager in the Road & Bridge Department, managing equipment needs as well as the mining, crushing, hauling and placing of road surface materials. That is his official job, he is solid, consistent and is really good at his job. However, in the recent floods, he went to a whole new level. He was on vacation when he was called in to help the first night of the flood. He was up all night, gathering road data, coordinating with our Director, field employees and office staff, and relaying information between all of the above. He, and many of our employees, worked countless hours during the initial flood response and early recovery. Justin has a love of Larimer County and a passion for doing his job".

# Your Larimer County Transportation System

Includes:

459 miles of paved roads

443 miles of non-paved roads

200 major structures (bridges with a span of 20 feet or more)

440+ minor structures (crossings which span from 4 feet to 20 feet)

3000+ culverts (this does not include driveway culverts)

## All the other pieces

Article By:

Sally Dams, Business Operations Coordinator

There are many dates or events that live in our collective memories: Ones that come to mind are 9/11, the Columbine Shooting, the Blizzard of '82, the Shuttle exploding, the Berlin Wall coming down. When I started at Larimer County, I began to add more local events to my list: the Blizzard of 2003, the High Park Fire, the Windsor Tornado, the winter of '06-'07 when we had back to back blizzards on December 20 and December 28, making Christmas shopping rather difficult and then 8" of snow every week-end after became the norm, and of course, the stories of the '76 Big Thompson Flood.

So there I was, sick on September 11, 2013. It was a good day to be home sick, cold, dreary and rainy. On the morning of Thursday, September 12, I met up with the Road & Bridge Director, Dale Miller, in the parking lot of our office. I commented something like "Isn't this rain crazy? I can't believe how bad Boulder County got hit...." and I might have thrown in something about "building an Ark", he commented back "You ready?" At that time, I was unaware of how badly Larimer County was getting hit. Two minutes in to my day, I had a much better idea. By Friday, September 13<sup>th</sup>, I wasn't sure I was going to make it into work.

The Poudre River had crested the night before and by having already signed up for Larimer Emergency Alerts at [www.leta911.org](http://www.leta911.org), I received a text message in the middle of the night. All of the bridges over the Poudre River (except Harmony Rd.) were closed. Our Administrative office is just west of the river, so after some creative neighborhood maneuvering, I was able to get in.....only to worry later that day that we might be evacuated.

My memories from this period are rather spotty.....I remember it was sometime in November when I commented that I felt like I had lost two months of my life and that it wasn't fair to complain considering all that many of our citizens lost.

It was an emotionally trying time, between talking with residents who couldn't get to their homes, to citizens who just wanted to get their cars out, vacationers who were out of state now, but left their vehicles in the canyons as they were evacuated, and irate people who maybe didn't grasp the enormity and breadth of the damage Larimer County suffered.

I was on the phone a lot; I helped coordinate and relay information between our field staff, our front desk, the Engineering Department, other agencies and the public. I gained many new Facebook Friends including CDOT, Larimer County Sheriff's Office, the Colorado Cherry Company (which was giving early updates in the Pinewood Springs area) and the Town of Estes Park. Our Road Closure web page, which had worked well under our normal maintenance and construction work, was not functional in this emergency. The number one problem we had with it was it required an end date to the event and at the time we were trying to input the information on the road closures, during the first day or two of the flood, we really had no idea when these roads would be back open. I started having the field managers give me color coded time lengths, green = open, yellow = temp closure/relatively quick repair (4-6 weeks) and red = heavy road damage/it will be months. This web site work evolved into updating our mapping feature as well as adding a secondary page off of the main Road Closure web page to try to capture and detail the work that has been accomplished so far and work that still needs to be done.



Two full lanes of pavement in pasture off of CR 15, by the Little Thompson Bridge, this was an interesting phone call! Photo by Justin Hersh

Road Number	Road Name	From	To	Start Date	End Date	Contact	Reason	Type	Expected Delay

As our beautiful, post-flood fall turned to winter, my job transitioned as well. Our Accountant went out on extended leave, the bills from the Contractors started rolling in, the questions and need for information from our FEMA Consultant and FEMA began ramping up. We crunched a lot of data here in the Road & Bridge Department. We have been working on setting up our retention plan for all of the flood documentation that we have generated so far, as well as for the future work. Larimer County has a ways to go on the road to recovery from this flood, but as I look back, I am proud to be in a Department that responds so fluidly and rapidly to emergencies and to be part of an organization that cares so much for the work it performs and the citizens we work for.

# And Life Goes On.....

Article by:  
Jim Frick, Non-Paved Roads Group Manager

This last year has proved to be quite challenging for our non-paved roads. The rain that caused the flooding also caused our roads to become potholed and rough. The drainage ditches on many roads were silted in or completely washed out, plugging culverts and disrupting the drainage system. This in turn caused drainage water from other storms to over flow the roads. So there I was dealing with an ongoing battle to keep our roads safe and smooth. Usually our non-paved road system holds up until after the winter months have passed. Then we begin to grade them in the spring after the snow season is over. We are seeing a change in that due to the amount of rain we received all at once during the flood. In many cases it has washed away our treatments and a lot of the fines that hold our gravel together. This results in our roads being rough, rocky, and dusty, all of which are great concerns for the Road & Bridge Department and the citizens traveling those roads. We continue to evaluate our roads and grade them as needed. This process has begun earlier than usual in 2014 and will prove



A variety of damage occurred on our roads, here CR 6C is a soupy mess, looking west from Little Thompson Bridge, Photo by Jim Frick

West of Little Thompson Bridge on CR 6C, looking west, Photo by Jim Frick



to cost us more money for maintenance to maintain the standards we provide to the public.

We strive to keep our non-paved roads in top condition and in the safest condition for the citizens traveling them. 2014 will be a challenge to do that but we will meet that challenge to the best of our ability and keep our roads in top condition for the traveling public.

## Phones

Article By:  
Annette Prewitt, Accounting Technician II

So there I was.....on the front lines of the flood...only I was in Larimer County's Road & Bridge office answering a deluge of calls. It was September 13, 2013 and the world had turned upside down. The phones were ringing off the hook and we were trying to help people in any way possible. Multiple roads and bridges were flooded and people needed help navigating through the County to get to their homes or check on loved ones. They were at the mercy of any information we could give them. Fortunately, we had access to multiple maps on-line from various County, City and State websites to see if it was even possible for them to reach their destination. Many of the first calls came from people needing to get to Estes Park, which was completely cut off from the world. The town was flooded and had no electricity or phone service. There were various callers who were scheduled to pick up hunters in remote locations. These hunters had been in the wilderness for days and were depending on a ride back to civilization. I also had calls from people who had just flown into Colorado to attend weddings in Estes Park. The



CR 43, .25 Miles above Glen Haven, Photo by Rick Johnson

future brides & grooms were in Estes waiting for their guests to arrive, while the guests were stranded in Denver with limited information. I had to let them know that the roads in the canyons were completely wiped out and that this could be a long term situation. I think the community as a whole was in shock, but all of the callers were polite and friendly and just wanted information. Our Department pulled together in a strong team effort to serve our community.

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# Rist Canyon—Fires and Floods

Article by: Ted Jensen, Structures Group Manager

County Road 52E (The Rist Canyon Road) and County Road 27 (The Stove Prairie Road and Buckhorn Road) saw flooding as a result of the 2012 High Park Fire as well as the devastating September 2013 Flood. The High Park Fire flooding started in the fall of 2012 with rainstorms that may have been insignificant before the fire. In July and August of 2013 rainstorms with as little as a .25 of an inch caused debris and water to temporarily flow across the road. This would cause the Road and Bridge Department along with the Larimer County Emergency Services Department to temporarily close the road. Each time, after the water had receded to a safe level, our employees would then get to work on making the road safe and passable again. This would include removing any debris that was on the road and in some cases stabilizing the road embankment to ensure the safety of the residents and traveling public. Also some of the private accesses that were within the county right of way were affected. After the road was safe we would work on

Bottom of the Narrows on CR 27 at mm 8 , Photo by Brent Harris



accesses so that residents could get back to their homes. Some of these storms occurred during our normal working hours, while others would come in the middle of the night or on the weekends. On September 11, 2013 when the rain and flooding had started, the Road and Bridge department had crews working in the rain to try to keep County Road 27 and 52E passable and safe. As the water rose it was damaging the roads faster than we could repair them. As this happened, we would have to close roads that were not safe to travel. At the same time Highway 14 was closed due to the flood, County Road 27 and County Road 44H were closed. That left County Road 52E as the only access to the Stove Prairie area. The Road and Bridge Department focused our efforts on County Road 52E, which at times had to be either completely closed or closed to residents only. We

were able to keep at least one lane passable and safe after the rain had stopped, immediately after the rain stopped the Road and Bridge Department went to work to get 2 lanes passable and safe for the residents to be able to travel County Road 52E, as well as

Post Fire, Pre Flood rain picture on CR 27 near Skin Gulch, Photo by Ted Jensen



the contractors that were working for Larimer County on the many other damaged roads to begin work.

## Emergency Response Coordination

Article By: Justin Hersh, Equipment and Materials Group Manager

As any Road and Bridge employee can tell you, sometimes our jobs are anything but normal. We have a broad range of responsibilities, which can cause us to be called to task at any time, day or night. This duty of response is shared and handled by all Road and Bridge employees alike. "These situations can lead to some pretty interesting work stories... "So there we were..."

2013 saw us responding to many issues along the County's road system; most of these issues were of the normal variety for us- slick roads, fallen rock, water on the road, dead animal on the road (yes, we do that) and the list goes on and on. Some of these seemingly normal responses turned out to be of a larger magnitude than we normally see or expect. The flooding in and around the High Park burn, a torrential down-pour in August, and the September flooding had us going through the motions- albeit, on a larger scale than normal.

As with any call or page that we receive, determination of safety for the traveling public as well as threat or damage to our road system is first priority. After those determinations have been made, we begin to assess the needs and logistics of the situation- these decisions are made as quickly and precisely as possible given the situation. Once plans have been made; needed operators, traffic control, and equipment are mobilized. It has been my experience that these decisions will be made and a plan put into process within a matter of minutes. Many of these responses were handled throughout 2013 by our skilled and reliable employees.



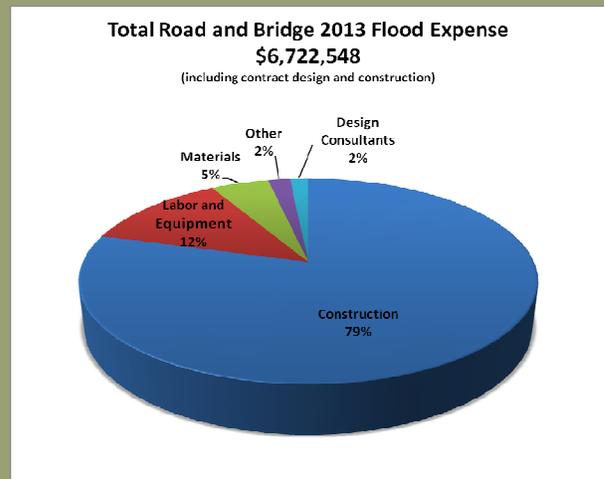
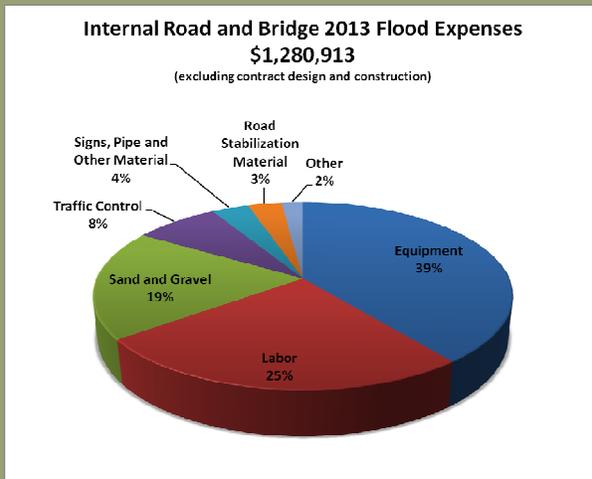
This picture reflects "minor" damage from the flood, CR 67J, Photo by Jeremy Johnson

# Flood, Finances and FEMA

Article By: Lisa Gagliardi, Senior Accountant

It was the second week in September, and I first realized we had an “event” when I came in to work and heard the phone ringing off the hook, the chatter on the radio and came around the corner and saw a couple Managers who looked like they had been out working all night (they had). So there I was, thinking of the best way to track our costs for the “event” because we knew immediately in those first hours we would need to be able to show our detailed costs for possible reimbursement. In any other job I have had, this would be a very daunting task. In Road and Bridge we are lucky to have an existing cost accounting system that tracks where we did the work, what we did, who was doing the work and what materials and contract services we used. It just took a quick e-mail to our management team to let them know to use a specific code on their paperwork and we were off and running from a reporting standpoint. This system was especially helpful in the first few weeks when we had to report costs on a daily basis and will continue to be invaluable as we submit quarterly reimbursements as work continues over the next few years.

What did our cost accounting system tell us about the Road and Bridge 2013 costs for the flood recovery?



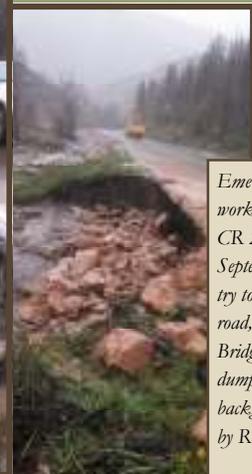
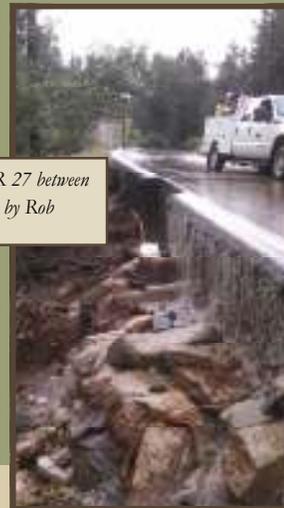
What remains to be seen?

The net impact of the flood on local resources can be significant. The local share of permanent flood repairs is estimated between 10 -12% of total eligible expenses. With the largest expenses still to be seen as the permanent repairs continue, the local share can be significant and will be something County management will have to closely monitor.



*While one lane of road is “missing” on Tunnel Rd, CR 69B, R&B crews try to salvage materials and the culvert to reuse, Photo by Mike Barnhart*

*Working in the rain on CR 27 between CR 44H and 52E, Photo by Rob*



*Emergency repair work, north end of CR 27 on September 12th to try to save the road, Road & Bridge tandem dump truck in background Photo by Rob Kennedy*



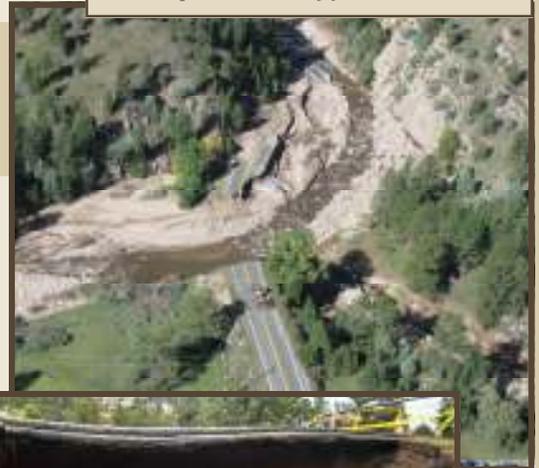
R&B grades the road near the Little Thompson Crossing at CR 4E.

a lake and it was hard to comprehend that he might not be able to get home. In the course of a day, Northern Colorado had completely changed!

The days passed and I remember receiving a call from a gentleman who lived in the canyon west of Loveland. The river was rising and his wife and children wanted to leave. He called to get an idea of how bad things really were. I tried to give him a true assessment and let him know he still had options to leave his home. He couldn't bring himself to leave his animals to fend for themselves, but he was also torn seeing the fear in his family's eyes. This produced quite a moral dilemma for many people since the local shelters were only taking dogs, cats and small animals. Other people chose to let their animals go, and hoped they would have a chance on their own. The National Guard stayed and rescued all of the people who were willing to leave their homes. Those who chose to stay were told they would be on their own for food and provisions throughout the winter months. During the flood many quick and difficult decisions had to be made, but the strong spirit of Coloradoan's shone through. It was encouraging to hear the stories of communities coming together for a common purpose of survival. We heard many stories of neighbors helping neighbors. Some were opening their homes to the homeless, others created pulley systems to transfer supplies across the rivers and others even built temporary roads.

Eventually, we began receiving calls from citizens wanting to know how to regain access to their mountain homes. People hiked many miles to winterize their homes for the cold season ahead. The County quickly opened many roads and trails and worked with private home owners to acquire easement access for the public to get to their isolated properties. The networking that took place through social media was amazing and it was evident that the true spirit of Colorado was alive and well.

Aerial view of CR 47 and what was the first crossing over Little Thompson River, Photo by Justin Hersh



## What Happened in Estes Park?

Article By:  
Rick Johnson, Paved Roads Group Manager

September 11, 2013 9:45 PM There I was in bed thinking of what I had forgotten to pack for my upcoming elk hunting trip when my train of thought was interrupted by a beeping pager. After the third or fourth page I decided to call Justin Hersh to see if I could help. After a few rushed phone calls I was headed to County Road 47 ( Big Elk ) how ironic, little did I know that would be the only elk I would be chasing.

I arrived at County Road 43 to see a river of water where the road should have been. As I parked with lights flashing so no one tried to brave the river, a deputy sheriff arrived. I asked if he could stay and watch while I left to retrieve some Road Closed signs. Upon my return the water had risen another six to eight feet and overtopped the road at the culvert and it wasn't long before the road had a sixty foot ravine cut right through the road. Nothing more to do but place Road Closed



A unique view of Mile Marker 2.5 on CR 43, Photo by Rick Johnson

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*What Happened in Estes Park (Continued from page 8)*

signs and call in my findings. The next twelve hours would be spent monitoring roads and bridges until reinforcements arrived.

Thursday September 12, around three o'clock in the afternoon Mike Barnhart, Don Pew and John Eichman arrived in Estes Park via Trail Ridge Road due to the fact that every other road in and out of

Estes Park was closed. We met at the shop, devised a plan, gathered all remaining signs, stands and rolls of caution tape and headed out. By Ten PM we had all of the areas of concern taped off and safe for the evening. As we retired for the evening thinking the worst of it was behind us, we awoke to very heavy rain and a river flowing down the main street of Estes Park.

Friday September 13, was spent doing much of the same, assessing roads, barricading them with whatever we could get our hands on and reporting back to Justin. As the day went on roads went from bad to not there at all. By Friday evening the rain and water levels were subsiding.

Saturday September 14, with a very limited supply of materials, we started work on roads with minor problems. This would play a major part in being able start fixing roads. It would be several weeks before the town of Estes could begin making gravel. Man power was also in limited supply. It was no longer a half-hour trip up 34, But a 4 - 4 1/2 hour trip up I-70 to Central City and across HWY 7 to Estes. We relied on volunteer employees to man

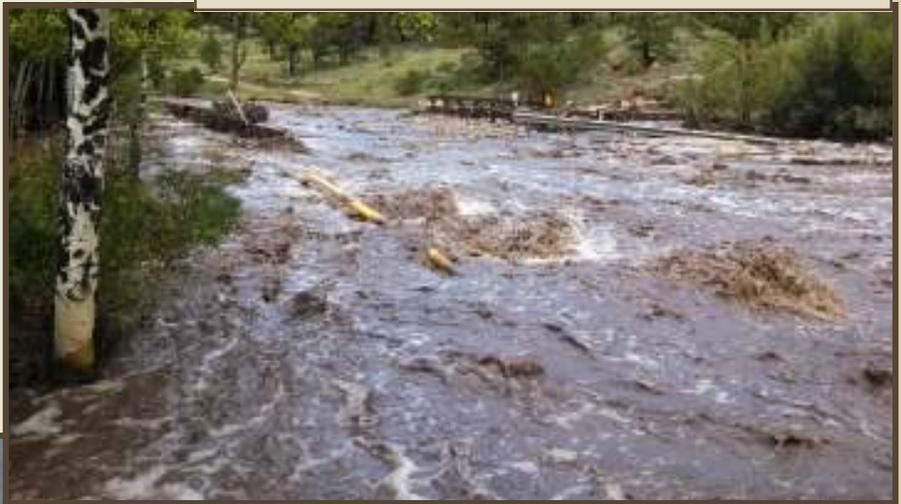
our shop in Estes Park which I would like to thank for doing a great job.

For the next two months we would continue rotating folks in and out of Estes Park working on temporary road work to provide access to everyone effected by the flood of 2013.

*A view of flood waters flowing through Downtown Estes Park  
Photo by Mike Barnhart*



*The river flows through the intersection of Fish Creek, Whispering Pine Dr. and Little Valley,  
Photo by Rick Johnson*



*Ron Nauta armoring the side of the road to rebuild the upper portion of CR 43 near Glen Have  
Photo by Robin Mayhew*



*Ron Nauta and Jeff Singleton working to rebuild missing sections of the upper portion of CR 43 near Glen Have  
Photo by Robin Mayhew*

*Damage to CR 63 -Fish Creek, Photo by Rick Johnson*



*Many activities of everyday Colorado life that we take for granted were interrupted. Bicycles stopped short on CR 21 at the Little Thompson bridge, Photo by Jim Frick*



*A UPS delivery truck is seen waiting in the background on CR 2 (Boulder County Line) Photo by Jim Frick*



*The violence of the flood waters is evident in this tree being forced through the guardrail on the Little Thompson Bridge on CR 4E, Photo by Jim Frick*

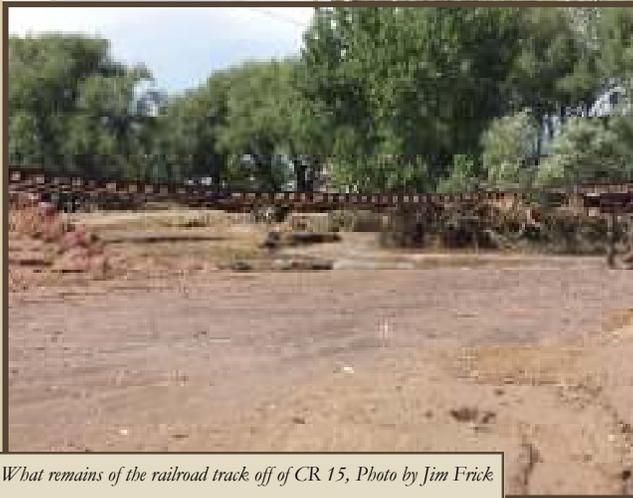


*Bridge damage on CR 17 over the Little Thompson River, Photo by Jim Frick*

*A pretty, windy, flood damaged road; CR 27, through the Narrows, Photo by Ted Jensen*



*This shoulder damage seems relatively minor, but will need to be shored back up and stabilized on CR 27 between CR 52E and CR 44H, Photo by Ted Jensen*



*What remains of the railroad track off of CR 15, Photo by Jim Frick*



*Damage along CR 15, Photo by Jim Frick*

# *A*nd the Storm clears.....



*View from CR 18E looking east over Loveland, Photo by Jim Frick*

