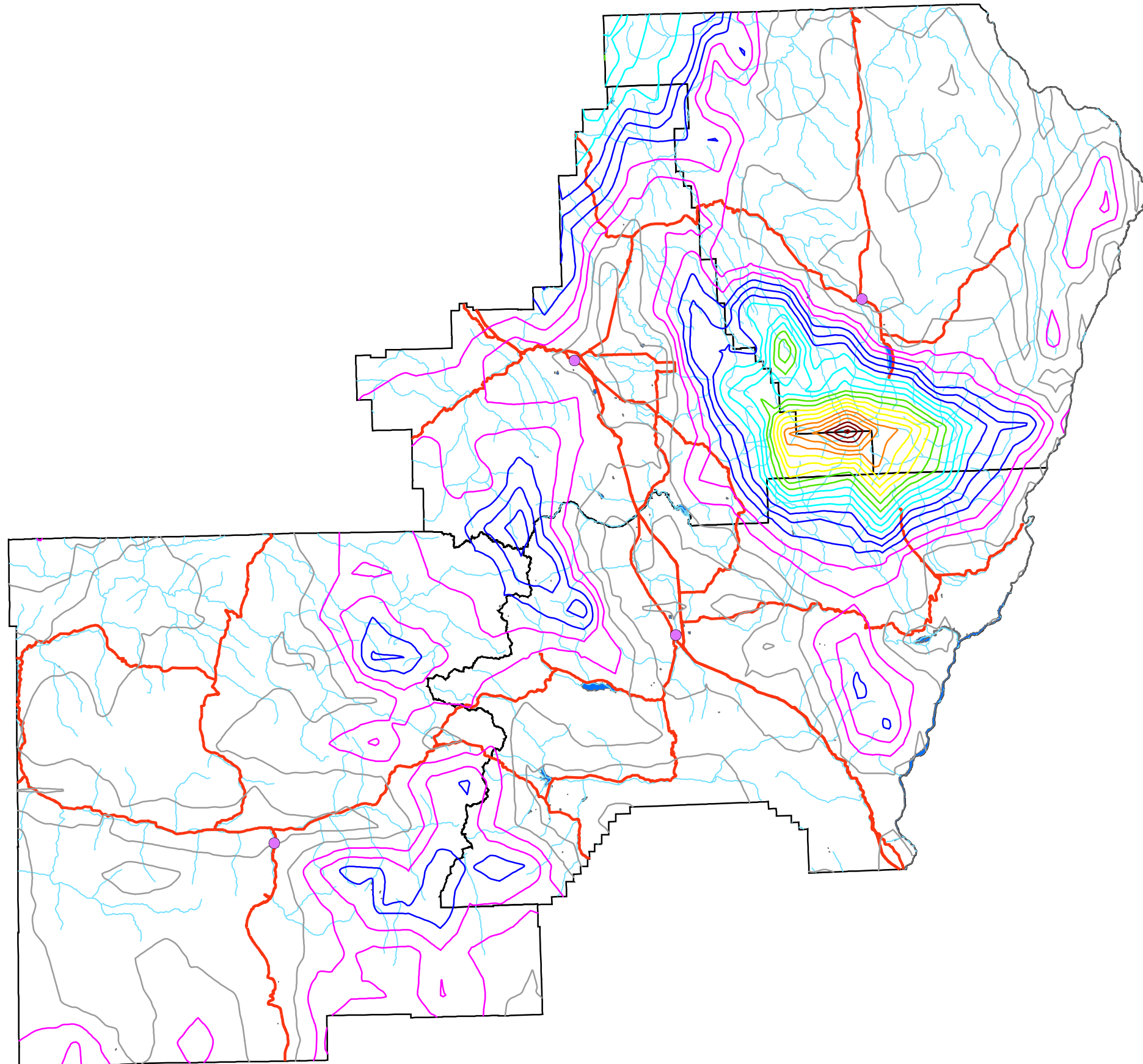


# Hazard Annex

## Flood

# Northeast Oregon Natural Hazard Risk Reduction Plan

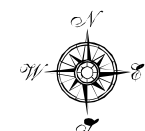
## Average Precipitation



### Legend

- County Seats
- Average Precipitation: inches per year**
  - 10 - 20 inches
  - 25 - 30 inches
  - 35 - 45 inches
  - 50 - 60 inches
  - 65 - 70 inches
  - 75 - 85 inches
  - 90 - 100 inches
  - 105 - 115 inches
- Roads
- Streams
- Lakes
- County Boundaries

0 4 8 16 24 32 Miles



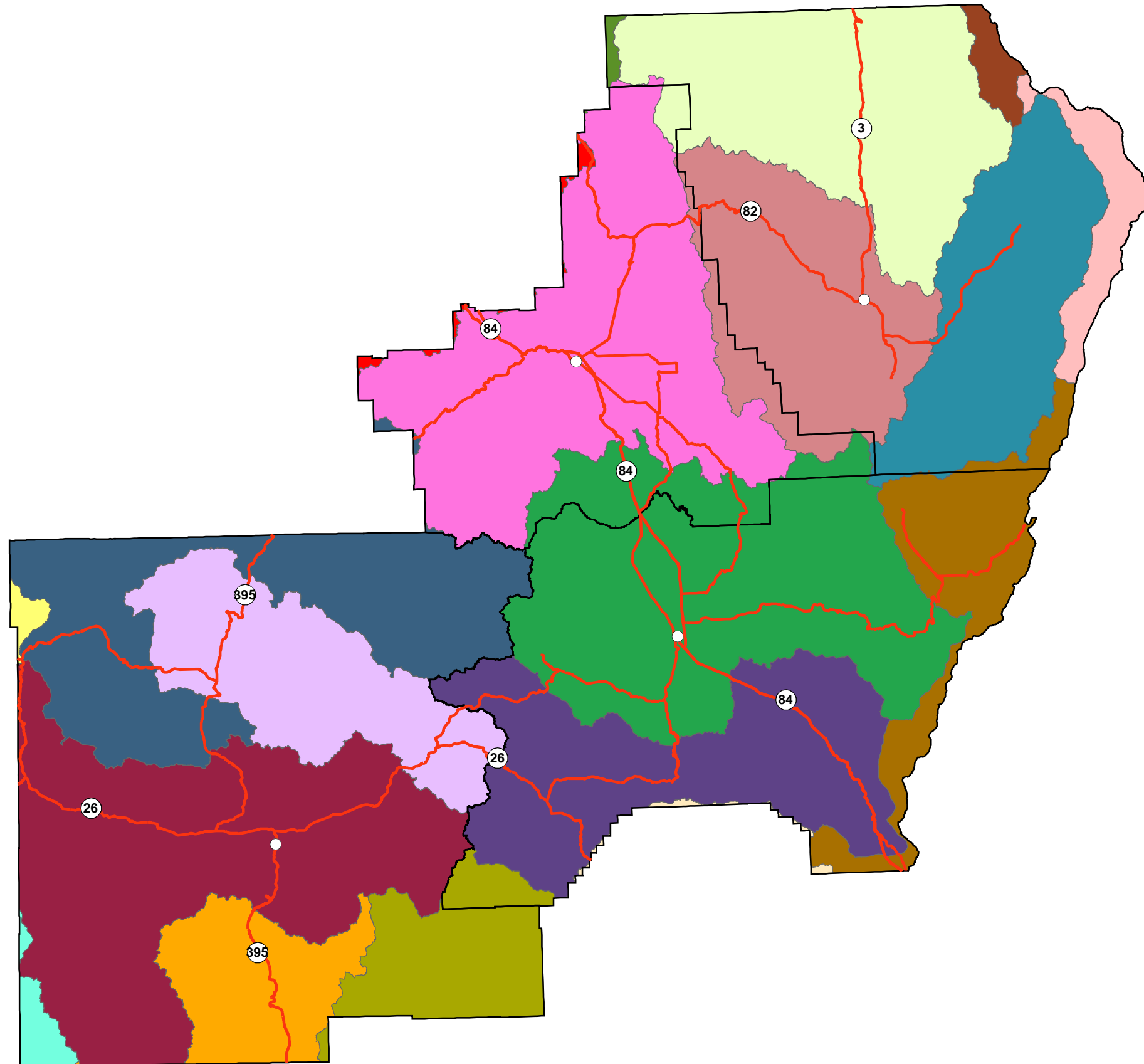
Data Sources: County and City boundaries, county seats, and precipitation contours are from the Oregon Geospatial Data Clearinghouse. Roads are from Oregon Department of Transportation.

Maps created by Wallowa County GIS, a division of the Wallowa County Planning Department.

The information on this map was derived from various sources. Care was taken in the creation of this map but it is provided "as is". Wallowa County cannot accept any responsibility for errors, omissions, or positional accuracy in the digital data or the underlying records. There are no warranties, express or implied, including the merchantability or fitness for a particular purpose, accompanying this product. However, notification of any errors will be appreciated.

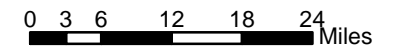
# Northeast Oregon Natural Hazard Risk Reduction Plan

## River Subbasins



**Legend**

- County Seats
- Roads
- County Boundaries
- Brownlee Reservoir
- Burnt River
- Hells Canyon
- Imnaha River
- Lower Grande Ronde River
- Lower John Day
- Lower Snake/Asotin
- Middle Fork John Day
- North Fork John Day
- Powder River
- Silvies
- South Fork Crooked
- Umatilla
- Upper Grande Ronde River
- Upper John Day
- Upper Malheur
- Walla Walla
- Wallowa River
- Willow



Data Sources: County boundaries, county seats, and subbasins are from the Oregon Geospatial Data Clearinghouse. Roads are from Oregon Department of Transportation.

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# River runs into future on back of plan

By Alice Perry Linker

Observer Staff Writer

The swimming hole near La Grande's Spruce Street Bridge may disappear.

Fishing is expected to improve, however, and wildlife may become more abundant along a two-mile stretch of the Grande Ronde River between the bridge next to Riverside Park and the Island City Bridge, according to a plan to restore the river banks and stop river bed erosion.

A feasibility study prepared by the Army Corps of Engineers and co-sponsored by Union County, the City of La Grande and the county's Soil and Water Conservation District details a plan designed to halt erosion of the river bed (known as a headcut) at the bridge and improve stream and bank conditions

downstream for about two miles. The study calls for the work to be done in two phases, with the first phase starting at the Spruce Street Bridge and scheduled to begin in September 2001.

A public hearing on the first phase will begin at 7 p.m. Wednesday in the Misener Conference room of the county's Chaplin Building on Fourth Street. Written public comment will be taken until Dec. 27.

Work on the plan began more than two years ago, but implementation has been delayed, partly because of personnel changes at the Corps of Engineers.

When the plan was started, costs for both phases were estimated at \$1 million, with 25 percent of that to be shared by the local governments. The Corps'

formal report released earlier this month lists the cost at slightly more than \$3.2 million for the first phase. The local governments' share has not changed.

"We originally thought the cost would not be more than \$1 million to do both phases," said Union County Planner Hanley Jenkins. "We don't have to decide if we can do this until the feasibility study is accepted."

Jenkins said he expects the Dec. 27 deadline for public comment to be extended and more than one public hearing to be scheduled over the next few months.

"We'd like to hold additional hearings after the holidays are over," he said.

See RIVER, Page 2A

## River

Continued from Page 1A

Grants from the Bureau of Land Management may be available to help with the cost.

The Corps' analysis cites changes in the river channel in past years to reduce flooding and gravel mining in the stream as reasons for the river bed erosion.

"For the most part, the channel has been straightened considerably from its former alignment," the report states. "This straightening tends to increase the erosive energy of the river..."

The plan to reduce the erosion near the Spruce Street Bridge calls for in-stream installation of rock weirs about 50 feet apart. Devices in the rocks would allow bull trout passage along the river. A concrete grade control structure would be built in the river at the headcut.

The changes in the river at the bridge will cause a deep swimming hole to disappear, but the changes are expected to improve fishing conditions and will not affect boating, according to the engineering report.

An irrigation diversion would remain in place near the bridge.

Further downstream, just below the headcut, a narrower and deeper channel will be established within the river, creating more meandering. Rocks, root wads and logs will be anchored in the river banks to help prevent erosion, and rock structures will be built in the stream near the side of the river.

## Storm Drops Two Inches in Half Hour

**Published: June 30, 2006**



Crews from the Oregon Department of Transportation hauled rock to repair a shoulder along Highway 86 that eroded during a flash flood Thursday afternoon. Debris washed across the highway in two places — at Milepost 17 about 17 miles east of Baker City (above photo), and at Milepost 14. Baker City Herald/Heather Honeywell

**By JAYSON JACOBY**  
[jjacoby@bakercityherald.com](mailto:jjacoby@bakercityherald.com)

When Diane Naglee got home Thursday evening she noticed right off that her old bridge was gone — and a new river was rumbling through her property.

This was a problem.

"That bridge is the only way in to my place," said Naglee, whose home is just north of Highway 86, about 15 miles east of Baker City.

The loss of the bridge doesn't affect any other homes because the structure was along Naglee's private driveway rather than a public road.

The steel-and-wood bridge, which crosses Ruckles Creek, apparently performed flawlessly until Thursday afternoon.

That's when a cloudburst gushed about two inches of rain in half an hour, transforming Ruckles Creek from barely a trickle to a torrent which, besides breaking Naglee's bridge, bent irrigation pipes, wrecked barbed wire fences and floated half-ton hay bales.

"It's a mess," Naglee said this morning.

"We've never had a storm like this one," said Naglee's neighbor, Christie Wilde, who has lived in the Keating Valley since 1980. "I've never seen it rain that hard."

The storm, which struck about 2 p.m., also spawned gales that snapped several trees, spewed lightning bolts that knocked out power to 370 homes, and triggered a debris flows that slowed traffic on Highway 86.

"It was just the most amazing lightning storm I've seen in years," said Buzz Harper, who lives near Keating and is chief of the Keating Rural Fire Protection District.

Naglee, who moved into her place in March, said that when she drove across the bridge Thursday morning on her way to work in Baker City, Ruckles Creek was dry — as it usually is in late June.

But when she arrived home at 6:30 p.m., Ruckles Creek "was raging so hard I could not walk across it without worrying about getting swept away."

Wilde drove Naglee home via a detour that included a couple of roads and one of Wilde's fields. By this morning Ruckles Creek had receded so that Naglee, wearing a pair of rubber boots, could splash across safely.

But she still needs a bridge.

"It's very inconvenient," Naglee said.

She said a contractor was supposed to look at the bridge site today.

Naglee said she doesn't know if her homeowner's insurance policy will pay for the damage. She hopes she might be able to salvage parts of the bridge, including the two-by-eight wood planks. Those planks, along with other sections of the structure, washed downstream several hundred yards and got tangled with an irrigation wheel line that Christie Wilde and her husband, Oliver, own.

"Our wheel line actually caught Diane's bridge," Christie Wilde said.

Christie Wilde said the rain gauge at the couple's home collected an inch and three-quarters of water Thursday afternoon and evening — and most of that sluiced down in about half an hour, she said.

The deluge caused flash floods in several shallow draws, Christie Wilde said, and all that water funneled into Ruckles Creek.

"It just made Ruckles Creek a raging river," she said. "There's really no place for it to go but into our fields."

Wilde said floodwaters "wiped out" sections of fence and damaged the wheel line as well as a main irrigation supply pipe.

Rain was the storm's ingredient along Ruckles Creek, but several miles east, in lower Keating Valley, the thunderstorm battered the area with wind, as well.

Harper said wind felled several trees on the Phillips Ranch and on the Powder River Ranch, where Harper works.

He said one of the toppled trees on the Powder River Ranch barely missed slamming into another ranch worker's home. Harper said the tree "had to be one of the biggest willows in Baker County."

Muddy water mixed with sagebrush, rocks and other debris flowed across Highway 86 near Mileposts 14 and 17, said Brad Payton, who works at the Oregon Department of Transportation's Baker City maintenance station.

Payton said the highway stayed open, although flaggers guided traffic through the two flooded sections.

He said ODOT crews hauled in rock to temporarily repair sections of the highway shoulder that the floodwater gnawed at. Workers will have to bring in boulders to solidify the shoulder later, Payton said.

"The road's still not very pretty, but it's in good shape for the holiday weekend," he said.

Lightning caused fuses to open on Oregon Trail Electric Cooperative lines, cutting power to 370 customers at about 2:15 p.m.

OTEC crews restored power to 348 of those customers at 2:45 p.m., and to the remaining 22 customers at 3:30 p.m.

Baker Valley escaped the worst of the storm's wrath.

A third of an inch of rain fell at the Baker City Municipal Airport. The strongest wind gust was 17 mph.

## STORM POUNDS LA GRANDE

**Published: July 20, 2004**



**DISASTER SCENE:** Friends of Russ Bergette gather around his home at 63450 Gekeler Lane Monday to survey the damage after all of the surrounding trees snapped in half and landed on the roof of his newly remodeled home. The trees ripped out a meter base and took down telephone and power lines around the house. The Observer/LAURA MACKIE-HANCOCK

**By Bill Rautenstrauch  
Observer Staff Writer**

A sudden severe storm cut a wide swath of destruction through the Grande Ronde Valley late Monday afternoon.

Winds estimated at 70 miles per hour sent a modular building tumbling across the grounds at the Union County Airport and upended a semi-truck on Interstate 84 east of La Grande. A house on Gekeler was pummeled by several trees, and numerous homes in La Grande were hit by falling branches.

Slightly over an inch of rain fell in about half an hour.

In the airport incident, operations manager Doug Yearous was taken by ambulance to Grande Ronde Hospital, where he was treated for injuries and later released.

The modular building has served as a temporary airport operations center since a fire destroyed the regular office last year. Yearous was inside the building when the winds took it.

"I was shutting things down and I felt the trailer slip and move," Yearous said this morning. "I got knocked out on the second hit. I remember hitting my face on the other side of the room." Yearous said he believed the trailer rolled about four times. It came to rest upon an airplane owned by Ron Nash.

The plane was one of at least five damaged during the storm.

The semi-truck overturned in the eastbound lane of I-84 near milepost 266, about a mile from the Flying J truck stop. No injuries were reported.



The National Weather Service in Pendleton had no reliable estimate of the wind speed during the storm, though one weather spotter near Island City said winds gusted to 60-70 mph. Also at Island City, nearly an inch of rainfall was reported.

The weather service said a sensor that measures wind speed at the airport was knocked out early in the storm and did not render a reading.

The service said its network of spotters submitted numerous reports of storm damage. No spotter reported seeing a funnel cloud that would have indicated a tornado. A tornado did strike in Grant County Monday, the service said.

La Grande Public Works Director Dan Chevalier said this morning flooding occurred at several places around the city because the storm sewer system couldn't keep up with the flow of water. A power outage caused electric pumps to shut down, adding to the problem.

Chevalier said downed trees and power lines kept his department working overtime.

"We worked until about eight o'clock last night, and this morning crews are out cleaning up," he said.

Chevalier said Bud Jackson's Sports Bar at the east end of Adams and the Golden Harvest Restaurant at the corner of Greenwood and Jefferson downtown were among buildings whose interiors were flooded.

Flooding was heaviest in the Island Avenue underpass.

Dara Decker, Union County Emergency Services officer, said drivers trying to take their vehicles through the deep waters caused some complications.

"A couple of people tried to drive through it. Their cars stalled and had to be towed out," she said.

Decker said her office received numerous reports of damage from throughout the county.

"There were multiple trees down across roads and on top of buildings, and some of the railroad crossing bars along Island Avenue were ripped off," Decker said.

Eastern Oregon University felt the impact of the storm but suffered no significant damage, said Michael Rhodes, EOU's interim physical plant facilities and planning director.

Water flowed into the ground level floors of Ackerman Hall, Pierce Library and Hoke Center.

The water had to be cleaned up by crews but did not cause any damage.

Normally the water would have been caught by EOU's storm drains but they were backed up because of the storm, Rhodes said.

The storm also blew down many branches on campus. Rhodes said that crews will be cleaning up the branches for much of the next two days.

The Oregon Department of Transportation was busy cleaning up debris until late in the evening, said spokesman Tom Strandberg.

Strandberg said crews monitored the storm via radar and were ready when it struck.

"We were following it and we had people standing by, ready to go," he said.

Strandberg said there were no full highway closures during the incident, though debris caused some single-lane closures.

Damage to the valley's crops was being assessed this morning.

The weather service was in La Grande this morning, investigating the path of the storm, its wind speed, and other factors.



Force (as of 4/200)

Value

\$15,521,200.00

\$4,813,300.00

\$0.00

\$280,000.00

\$0.00

\$506,700.00

\$0.00

\$0.00 not mapped

\$1,797,200.00

\$5,038,100.00

\$26,000.00

\$0.00

\$0.00

\$690,300.00

\$1,677,400.00

\$10,866,200.00

\$0.00

\$140,000.00

\$6,577,000.00

\$7,196,400.00

\$683,700.00

\$480,000.00

\$3,829,200.00

\$768,900.00