

Investigation into Rock Springs subsidence will continue

Old mine voids still moving

JEFF GEARINO - Southwest Wyoming bureau | Posted: Thursday, October 15, 2009 10:20 am



Ernie Vigil walks onto his porch at his home in Rock Springs in January. Vigil is one of many residents who noticed serious damage to their homes after a process called 'dynamic compaction' was used to seal old underground coal mines. (Dan Cepeda/Star-Tribune file)

ROCK SPRINGS -- Engineers have determined what many people here already knew: There's movement in the numerous, abandoned underground mines beneath the downtown area known as "Tree Street," which is causing subsidence problems for homeowners.

But the exact cause of the underground movement and what mitigation measures will be required to fix it remain unclear at this point, state officials said during a meeting Tuesday night.

In the meantime, the subsidence risk remains high for the neighborhood.

"There's some highly complex factors underground affecting the neighborhood ... all of the underground [voids and tunnels] are at some stage of collapse," engineering consultant Dave Hallman told the approximately 30 people in attendance.

"There's not any large, open mine workings under the neighborhood, however ... we're confident there's no gaping holes waiting to swallow your homes and cars," Hallman continued.

"But areas of high risk remain in the neighborhood ... so we've initiated additional efforts to define those areas further, so we can come up with a mitigation design to fix the problem."

Wyoming Abandoned Mine Lands Division officials unveiled the initial findings from nearly two years of investigative drilling in the neighborhood beset by damage from an ill-fated ground-pounding mitigation project in 2007.

Engineers with the Colorado-based Tetra Tech have been working to determine what's going on under the old mine workings, tunnels and voids scattered beneath the neighborhood.

Nearly two dozen homes in the Tree Street area were damaged by subsidence during a controversial reclamation project conducted two years ago that aimed to prepare vacant lands in Rock Springs for much-needed housing development. The subsidence project -- known locally as "The Big Drop" -- involved the use of a pilot technique known as dynamic compaction.

For three weeks beginning in July 2007, cranes pounded the ground with 25-ton and 35-ton weights to collapse underground mine voids on a tract of land next to the Tree Street neighborhood.

Residents said the shock waves from the ground pounding shook houses, cracked driveways and foundations, accelerated ongoing subsidence problems and severely damaged homes in the area.

State officials have been negotiating with residents for more than a year over the AML's settlement offers to repair damage from the project.

The AML Division has been conducting subsurface investigations since the fall of 2007 in the neighborhood to determine if any mitigation measures are required.

Engineers resumed drilling Sept. 21 to gather additional data to supplement the data previously collected.

Hallman said engineers based their initial findings on samples taken from numerous drill holes; views from downhole cameras; data from sonar devices; geophysical 3-D seismic mapping evaluations; visual inspections of streets, homes and sidewalks; old mine maps; and old subsidence reports.

AML administrator Rick Chancellor said the detailed investigation revealed there is still a lot of movement in the old underground mine voids.

"We think there's evidence of something going on [underground] ... that may be contributing to something going on on the surface," he said. "The next step is to focus on what we found and what we need to do in the future ... to try and stabilize that area."

Mayor Tim Kaumo said the bottom line from the report is that "the subsidence risk in Rock Springs is very much alive and well."

He urged AML officials to give Rock Springs "the highest priority" when it comes to mine subsidence and reclamation work in Wyoming.

"We're not done mitigating subsidence in Rock Springs, and we won't be done in our lifetime," Kaumo said. "There's still an awful lot of work to be done here ... it's an issue that never goes away."

Officials said copies of the 200-plus page report can be viewed at the Rock Springs Library and at City Hall.

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