Risky Business

The politics of landslides -- and building on landslides -- in Colorado Springs

by Bob Campbell

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Until the heavy rains of May 1995, life looked pretty rosy for Ken Garrison and his wife, Ann.

The couple lived in a four-level dream home in Regency Ridge, a ritzy hillside subdivision in the Cheyenne Mountain area of Colorado Springs.

The landslide-twisted home and buckled driveway of Ken Garrison in the Regency Drive area of the Cheyenne Mountain neighborhood. Surveying the damage are David Noe of the Colorado Geologic Survey (far left) and Mark Squire (middle), who administers the $4.1 million Federal Emergency Management Agency (FEMA) program that uses taxpayer money to buy out 23 landslide-damaged local homes.(Photo courtesy of David Noe)

Above them to the west loomed Cheyenne Mountain and the foothills. Below, to the north, the lake and golf course of the Colorado Springs Country Club receded into the green distance -- a pricey panorama in an idyllic setting.

Then came May of '95. It rained daily May 16-21, dumping 1.85 inches on May 17 alone. As related in a legal deposition, on May 22, Garrison began noticing cracks in his walls and floors, and in the asphalt driveway of his next door neighbor.

At around 10:15 the night of May 28, he heard "a large pop" and felt the house shudder. He climbed out of bed to investigate, but a cursory tour of the house revealed nothing out of the ordinary.

Garrison found the source of that pop-and-shudder the next morning. The concrete floor of his basement had cracked like a saltine. Within two weeks, the crack was a foot wide, and a crack in his yard expanded into a three-to-seven-foot cavern. His dining room and living room "began to slant noticeably to the south."

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To their dismay, the Garrisons were told by structural and geotechnical engineers they'd called to the scene that their home sits atop a slow-moving deposit of soil -- in geologic terms, a "landslide" -- that was twisting and crumpling their house.

Dismay escalated into anguish when they discovered their homeowners insurance doesn't cover damage from landslides or other soil movements.

"Check over your homeowner's insurance policy," said Garrison in a 1996 interview. "You'll find that it doesn't cover any kind of earth movement -- earthquake, slope slump, downslope creep, debris flow, whatever you want to call it. There's not a house in Colorado Springs that's covered for landslide damage."

Things went downhill fast.

By mid-June, the city condemned the house. In the short space of seven weeks, the Garrison's dream home turned into an uninhabitable, uninsured and unsellable nightmare.

Prey for rain

The Garrisons are far from alone in their plight. That same landslide destroyed or seriously damaged six homes on the 4200 block of Regency Drive and vicinity, and it now endangers houses on streets above and below it.

In the nearby Broadmoor area, some of the priciest homes in Colorado Springs sit atop a 200-acre landslide that stretches east from the Cheyenne Mountain Zoo to across Broadmoor South Golf Course in the upscale Marland Court neighborhood.

Landslide activity there has produced cracked roadways, leaning trees, buckled tennis courts and driveways, bent fences, and windows and doors that no longer shut flush. Two homes have been condemned and at least 12 more are threatened.

But southwestern Colorado Springs is not the sole area where landslides are pleating homes like accordions. David Noe of the Colorado Geologic Survey says that "as many as 5,000 homes, many in the $500,000-and-up price range, have been built in Colorado Springs on potentially unstable

built in Colorado Springs on potentially unstable, landslide-susceptible hillsides."

State geologists have identified at least eight such locales throughout town -- three in the Cheyenne Mountain area (Penhurst Place, Regency Drive, Marland Court), three in the Garden of the Gods vicinity (Holland Park, Honey Locust, Friendship Lane), one in Rockrimmon (Spring Creek Court) and one in Pinecliff (Haverhill Place).

Donna Fair, who heads the city Office of Emergency Management, says that at least 62 Colorado Springs homeowners have suffered anywhere from $40 million to $88 million in damage from moving soils, but the actual numbers could be far higher. Many victims keep their plight mum out of fear for their property values.

This, however, hasn't deterred the city from continuing to approve developments on known landslide terrain.

As recently as May 23, City Council approved construction of eight luxury homes on Maytag Acres on top of a landslide adjacent to the Marland landslide -- this despite cautions by state geologists in a Feb. 15 technical review of the project. "We remind the city," the geologists noted, "that this property is in a landslide-susceptible area and risks of activation of this dormant landslide, while low, are real."

Such cautions are nothing new. A 1974 federal study, partly financed by the Pikes Peak Area Council of Governments, identified landslide sites throughout Colorado Springs and specifically recommended that "building and road construction be prohibited in landslide hazard areas."

It is here, in fact, that our tale lies. The City of Colorado Springs has a long-standing history of reluctance both to heed expert recommendations and to establish and enforce regulations that would have prevented homeowner loss and landslide debacles like those on Regency Drive, but would have imposed regulatory constraints on immensely lucrative hillside development.

That reluctance has diminished somewhat in the past couple years, particularly on the part of city officials, and notably after another round of 22 landslide casualties following the spring rains of 1999.

"We don't have to keep repeating the mistakes of the past," said Councilwoman Judy Noyes

the past," said Councilwoman Judy Noyes, commenting on the Maytag Acres decision, which she reluctantly approved. "I don't think it's wrong to declare certain areas unfit for human habitation. I know that's not a popular stance in this town, but there are times when we just have to say that maybe this isn't a good idea."

Private property and public safety

Colorado law defines a geologic hazard as "a geologic phenomenon which is so adverse to ... construction or land use as to constitute a significant hazard to public health and safety or to property."

One of the chief geologic hazards in hill-abundant, mountainside Colorado Springs is landslide: the movement of a mass of rock, earth or debris down a slope.

The explosive population growth of recent decades has triggered an intense ideological and economic struggle over how much and in what way to regulate development on geologically hazardous terrain.

On the one side of this debate are champions of absolute private property rights. This camp -- primarily developers, builders, realtors and various agents of the "growth industry" -- passionately opposes any attempt to strengthen regulation of hillside development.

On the other side are state geologists and public safety and consumer protection advocates. This camp has pushed long and hard for more thorough and stringent regulation to ensure safe hillside development and protection of homebuyers.

Photo By Meggen Burghardt

Geologist John Himmelreich in front of a condemned house, wrecked by landslide activity in the Holland Park neighborhood near Garden of the Gods.

These camps, of course, are not diametrically opposed, but Colorado Springs has historically downplayed the "public health and safety" part of

the equation in favor of a pro-growth orientation that favors private property rights. When it hasn't sided with developers outright, the city has taken a hands-off, laissez-faire, buyer beware stance, claiming the problem to be a private sector matter between developers, builders and homebuyers.

David Noe, chief of engineering geology at the Colorado Geologic Survey, the state agency tasked with evaluating the accuracy and adequacy of developmental proposals for projects in geologically hazardous areas, is familiar with the city of Colorado Springs' position.

The agency rarely crossed paths with Colorado Springs until 1996, when the city passed the Geologic Hazards Ordinance in the wake of the Regency Ridge landslide debacle.

That ordinance requires a soils analysis and geologic hazards study of every building site, and a design plan for mitigation of any hazards. The city has no one on staff qualified to do technical reviews, and sends about one in ten of the proposals it receives up to CGS to do this review.

Noe praises passage of the Geologic Hazards Ordinance as "a major step forward for protecting Colorado Springs homebuyers from Regency Ridge-type tragedies." It has created friction, however, between his office and the Springs development community. "It put developers accustomed to a lot of power and latitude into an unfamiliar position," he explained. "For the first time, the soils and engineering studies written up by their consultants were subjected to the close scrutiny of independent experts."

Noe says the CGS gets pretty good cooperation from most Colorado communities.

But with Colorado Springs, it's a different story.

"There's been quite a backlash down there against the Geologic Hazards Ordinance," said Noe. "That community, frankly, has been difficult to work with."

Noe likens the attitude of the Springs development community to "a kid who completes his math assignment but doesn't want it to be graded, and then complains that he's being second-guessed if the teacher disagrees with his solution to a problem."

This seems an apt analogy for a March 6, 1998 letter to head city planner Quinn Peitz that was

letter to head city planner Quinn Peitz that was signed by a group of frontline local developers including representatives from Berry & Boyle, Cog Land & Development (the development arm of The Broadmoor hotel), Elite Properties (Houck Estate, The Reserve), Gates Land Company, La Plata (Briargate), and Nor'wood and Schuck Communities (Cedar Heights, Mountain Shadows, Stratton Estates).

These developers asked Peitz to stop using Colorado Geologic Survey for technical reviewing because their privately hired soils and geotechnical consultants "are having their professional judgment and conclusions routinely second-guessed by someone at CGS." The state agency's recommendations against development on certain high-risk properties, they complained, "have precluded [us from] building on parcels worth millions of dollars."

Noe says there's another side to this "second-guessing," however. "Developers from that community frequently use engineers with little or no geologic training to study very complicated geologic situations," he said. "We get a higher than normal number of reports from Colorado Springs that either don't contain enough information or have analysis or conclusions we disagree with."

"But when we find problems with some of these reports from the Springs," Noe continued "they dig in their heels and fight suggestions or calls for new information. The developers and consultants argue that we don't know what we're talking about, and we try to reiterate why we think our objections are important, and it doesn't go anywhere. It's been very argumentative down there."

Noe contends the city chain of command needs to buy more fully into the Geologic Hazards Ordinance from bottom to top. CGS needs the backing of city planning and engineering, which needs the backing of head planner Peitz and head engineer Gary Haynes. Peitz and Haynes, meanwhile, need the backing of City Manager Jim Mullen who needs the backing of City Council.

Noe attributes the Springs muddle in large part to a fundamental clash of orientations between private property rights and public safety. Colorado law holds landslides to be "a significant hazard to public health and safety," but Colorado Springs has tended to emphasize private property rights and view regulatory constraint as a threat to those

rights.

"That's a big issue throughout Colorado, not just Colorado Springs," he said. "Colorado Springs, though, seems inordinately afraid of lawsuits. I suspect it has a lot to do with the power of the development community in that town.

"The landslide epidemic of 1995, however, forced policy makers up there to take a closer look at the public safety side of the equation," Noe concluded. "Ignoring geologic hazards won't make them go away. You simply can't let development occur in a manner that will be harmful to tenants down the line."

It's the customer's problem

Noe's observations about Springs development politics were voiced in remarkably similar fashion in a 1985 study by the UCCS Department of Geography and Environment.

This publication, "Environmental Hazards: Colorado Springs, Colorado," documents a long-standing history of pretending that we don't have geologic hazards, of regulating hillside development in the most minimal-possible fashion, and of either "watering down" or failing to enforce what regulations are on the books.

"The attitude of some public officials in Colorado Springs is ambivalent at best," the study observes. "Official policy leans toward caveat emptor (let the buyer beware) when possible hazards exist."

It's not as though public officials haven't had access to needed information. Since 1968, a slew of published studies have identified and discussed landslide sites in greater Colorado Springs.

The problem, according to the '85 UCCS report, is a tendency for Springs policy makers to ignore or plead ignorance of these studies. "The prevailing philosophy appears to be that if an assessment of the hazards ... is not available, then it follows that Colorado Springs has few natural or technological hazards to worry about."

An afternoon's perusal of city records will turn up numerous instances of this "ambivalent at best" attitude -- as in a Jan. 27, 1998 letter from former city attorney Jim Colvin (he had retired only weeks earlier) to Richard Young of the law firm Holme Roberts & Owens.

(Colvin's letter is of particular relevance to this story because it was written as expert witness testimony on behalf of Gates Land Co., which was being sued by Ken Garrison, the Regency Drive homeowner.)

Garrison was suing Gates for failure to disclose that his property was situated on a landslide and unfit for traditional construction. Colvin, who was city attorney from 1971 to 1998 and its top legal advisor for 16 of those years, testified for Gates, who developed the Garrison property on a locale identified in previous geologic studies as a landslide and/or "unstable slope" area. (The suit was settled confidentially, out of court.)

In his testimony for Gates, Colvin professes that he was unaware during his tenure as city legal counsel of any of the geologic surveys and reports that map landslide areas in Colorado Springs. "As City Attorney," he said, "I normally would have been aware of maps showing landslides, but from 1971 until 1995 I was not aware of any USGS or other maps showing an ancient landslide in the area."

Asked about this in a recent interview, Colvin said that the city did a geologic study as a result of 1973 legislation requiring each city to identify mineral deposits in its community. "We had those studies done," said Colvin, "and they did not show ancient landslide areas. They showed areas of talis -- the crumbly stuff that results from mountain erosion -- but they didn't show that they were potential landslides. I was unaware of any other studies showing ancient landslides."

Photo By Meggen Burghardt

The foundation and twisted concrete floor of the Garrison's dream home on Regency Drive in the Broadmoor Bluffs area of Cheyenne Mountain. The four-level structure was so close to collapse that it was razed after condemnation.

Compare this assertion to an assessment of the Garrison landslide by Michael West, one of Colorado's foremost landslide experts. West notes that the landslide complex that destroyed Garrison's home "was

complex that destroyed Garrison's home" was identified by the USGS prior to construction of the homes along Regency Drive," and that information about the landslide "was disseminated through published geologic maps available to geotechnical engineers, engineering geologists, developers, local government agencies and the general public."

According to West, the Garrison site should not have been built on. "Construction of permanent, habitable housing in a landslide complex involves high risk of renewed movement and structural damage," and "prudent engineering practice would [generally] dictate avoidance of known landslide areas as permanent building sites."

"Even ... after the [Garrison] property landslide," said Colvin, the City declined to bar construction "in identified ancient landslides, because as a matter of public policy they have determined that no such prohibition is warranted."

Asked why the city didn't consider landslides a cause for concern, Colvin said in an interview last week that he considered the Regency Ridge area more of a "soils condition" problem than a landslide concern. "You don't have the landslide until you put the weight on it and somebody sprinkles the ground and you create a slippery slope.

"I think it's interesting that this year, without the moisture, we haven't had any landslide problems," he continued. "We only have those problems in the years we get a lot of moisture, and that tells me that it's more of a soils condition problem than a landslide issue. Soils conditions can be dealt with with proper engineering."

Above all, don't get sued

An example of how the private property/public safety debate drives decision making in Colorado Springs governance can be seen in an agenda item in the Oct. 7, 1999 meeting of the Colorado Springs Planning Commission.

On this occasion, the Commission was considering approval of a 16.5-acre development in the Pinecliff community that contains a landslide area. Colvin, who represented the would-be developer of this property at this meeting, insisted that the city had no right to deny his client approval. Paul Tice, who spoke in his

capacity as city planner, said the city should not let houses be put on a known landslide site.

Colvin in his argument returns again and again to the fact that the city is liable to a "takings" lawsuit if approval is denied. ("Takings" is a legal concept involving denial of property rights without just compensation.)

"The city has been very successful in avoiding any liability for geologic disasters to date [by using] a 'buyer beware' attitude," Colvin argued. "Requiring geologic studies is one thing, but for staff to take those studies and restrict where people can and cannot build makes the city just as liable as does geologic disasters."

Planning staff are "sticking their necks out," Colvin warned, if they make geologic hazards a basis for "telling [developers] where they can and cannot build."

Kent Petre, president of Development Management, Inc., the property's would-be developer, agreed with Colvin at the Oct. 7 meeting. "Staff's position," he insisted, "should be to note that a geologic study has been done and where it's available for public review, but not to determine where the lines are drawn for buildable or unbuildable areas."

Tice countered Colvin and Petre with the argument that the Geologic Hazard Ordinance requires the applicant to identify geologic hazards and then "design the project around those hazards, preferably by avoiding them."

"If a hazard is identified," said Tice, "staff would expect the project design to reflect that no construction would occur in unstable slope areas."

The comments of the Planning Commissioners closely parallel those of Colvin and Tice.

Commissioner Zane Bowers sided with Colvin, stating that city staff's recommendation to avoid construction on the unstable slope area constitutes "a taking of private property; there's no two ways about it."

Commissioner Tracy Nelson, however, sided with Tice, arguing that avoidance of geologic hazards on behalf of public safety is a legitimate basis for denying approval.

"Approval of a development plan," he said, "infers to the property buyer that the lot approved is

to the property buyer that the lot approved is buildable. I wish we [the Planning Commission] could rely on the professional engineers and builders to do the right thing, but unfortunately that doesn't always happen. Sometimes they intentionally ignore the hazards, which I know for a fact happens all the time."

Colvin maintains his position today. "As soon as you tell a developer you can't build somewhere, on the basis that you've reviewed their geologic hazards study," he said in a recent interview, "you've opened yourself up to major big time liability.

"You can always take the position," Colvin continued, "that you don't want any development to occur anywhere where there might be a chance of hazard. That's a zero-risk mentality and you don't get very far with a zero-risk mentality. That means you don't let people drive cars because there might be accidents."

Shopping around

According to Noe, the 1996 Geologic Hazards Ordinance was a huge step forward toward achieving a workable equilibrium between private property rights and public safety. Aspects of that ordinance, however, haven't sat well with the Housing and Business Association of Colorado Springs.

In a July 29, 1999 letter to City Planning, then-HBA president Jack Wiepking complained that sending development proposals to the Colorado Geologic Survey "bring[s] the state government into the local planning process." This is an uncalled-for intervention, said Wiepking, because the Regency Ridge landslide disaster was "an isolated incident" that affected only "a couple of homes in a hillside area."

Current HBA president Steve Wills agrees."The Geologic Hazards Ordinance is fine as it is," he said. Strengthening it would only create "further levels of government."

"It's not the government's job to take care of every problem," Wills insisted. "There'll always be people who say the sky is falling and demand more laws, but it's not the job of the government to police every problem under the sun."

A growing number of geologists and public safety

advocates, however, complain that the regulatory constraints of the Geologic Hazards Ordinance are too easily sidestepped. One of these critics is local geologist John Himmelreich, a member of the State Hazards Mitigation Team and the legislative and regulatory affairs chairman for the Association of Engineering Geologists.

Photo By Meggen Burghardt

Rod and Rachel Campbell stand alongside one of the large wall cracks created by landslide activity that tore apart their Holland Park home.

A repository of information about development issues in Colorado Springs, Himmelreich notes that hillside development can be enormously lucrative. People with money want homes in scenic locales with spectacular views, and some of the most resplendent housing in Colorado Springs is situated in hillside subdivisions rife with geologic hazards. A home recently built on a local landslide area is valued at just shy of $1 million.

For developers of such locales, the identification of geologic hazards is never good news. "It means that much less buildable acreage, and hazards mitigation always costs money that would not otherwise be spent," said Himmelreich.

"Developers, meanwhile, are shrewd businessmen out to protect their investment. Every increase in regulation is that much less freedom to pursue a profit. It's as sound a business practice for them to seek out regulatory loopholes as it is for a corporation to take advantage of tax loopholes."

Given the big bucks at stake, developers often take to playing what Himmelreich calls "the development game," shopping around for "hired guns" -- geotechnical and soils engineers willing to cut a corner here and leave a disadvantageous fact out there to deftly contour their soils and geotechnical reports in compliance with their client's needs.

One of the things making it possible for developers to "shop around" like this is that the city does not have a staff geologist qualified to put soils and geotechnical reports to technical review.

City civil engineer Robin Kidder concedes the city does no technical reviewing. "It's kind of a trust issue," he explained. "We rely on the expertise and integrity of the consultants. All we do is make sure that all the required reports are included, and that the reports address the hazards that the city is aware of."

The city sends a fraction -- about 10 percent -- of its soils and engineering reports to CGS for technical review. CGS, however, does not accept the expertise or integrity of consultants on trust, and it is their close scrutiny of these reports -- many the work of "hired guns" -- that some local developers characterize as "second-guessing."

A modest proposal

Himmelreich and colleagues Don Coates and Jim Frohbieter argue that the city could achieve a better balance between private property and public safety by making a few changes in its procedures for approving development proposals.

Coates is retired from the U.S. Geologic Survey and is now a local consultant who teaches at UCCS. Frohbieter is a geologist with Soils and Testing Engineering, Inc.

Geologic hazards will always be with us, and developments built on them will continue to fail, but the vast majority of the destruction and home loss could be eliminated, they say, were the city to:

· Adopt HB-1041, 1970s State legislation designed to regulate hillside development, among other things. Springs leaders opted not to adopt 1041 because they viewed it as a threat to their home-rule powers, but adoption would allay the city's "inordinate fear" of lawsuit because it would provide the statutory authority necessary for regulating hillside development.

· Require a series of "certifications of completion" signatures from developers and builders on every project. The developer would guarantee by each signing off that all the recommendations made in the soils and geologic hazards reports were carried out exactly and all the recommended mitigations fully implemented. (Presently, developers are on their honor to do these things; the city doesn't do the inspections needed to verify compliance.)

· Hire at least one (preferably more) full-time staff

geologist qualified to perform technical reviews both on paper and in the field.

· Rewrite the Geologic Hazards Ordinance of present to replace every "guideline" with a concrete minimum standard. "The present wording has too many 'may bes' and 'should bes' and not enough 'must bes' and 'shall bes,'" says Himmelreich. "There's too much wiggle-room."

· Require developers to make full, up-front disclosure to homebuyers of all the hazards, risk-assessments, recommendations and mitigation associated with that property and structure.

City engineer Kidder agrees with several of the points made by the the geologists.

"We do a pretty good job from the paper side," said Kidder, "but we're a little weak in the field. We don't do follow-up inspections to make sure that every avoidance and mitigation recommendation is followed. However, we have a request in to City Council for another full-time field person who would do verification."

Kidder said he's also requested funding to develop a Web site that would consolidate "all the standard references -- coal mine maps, landslide maps, all the stuff geologists use as starting points -- and make them available in one spot for anybody's use."

Kidder agrees that Colorado Springs governance has always tilted lopsidedly toward nonregulation and pro-growth.

"Developers," he said, "are coming from the attitude where 'You're not going to tell me what to do with my land,' and yet they sell that land, and you have unsuspecting customers buying these homes and thinking they're going to be safe for a hundred years. And then those homes start to move.

"The people left with them are devastated. They can't live in them, they've lost all their equity, they have nowhere to turn."

Kidder believes, finally, that the City of Colorado Springs is decades behind other Colorado cities in dealing with this problem. "Adoption of HB-1041," he says, "is way, way overdue."

"We had the potential to adopt it [25] years ago, but the conservative politics of this town weigh

heavily in favor of land development and non-regulation. We're a good 10 to 15 years behind the rest of the state in terms of our regulatory controls and enforcement. Other areas in the state do far more than we're doing to protect the consumer."

Meanwhile, 4270 Regency Drive, where the Garrison dream house once stood, is now only a foundation and cracked concrete floor. The house was razed in 1996 and the Garrisons have since moved out of state.

The problem continues, meanwhile. A July 24, 2000 letter from David Noe to Donna Fair reports that a landslide-hazard assessment found that a house "located immediately west of downtown Colorado Springs" at the base of a steep 20-foot hill has suffered severe landslide damage and is subject to "a potentially dangerous and life-threatening situation for the occupants of the house, as well as for drivers on Communication Circle."

"Abandoning the house," Noe concluded, "would address the immediate danger."