

Street stays open to limited traffic

Two blocks of Capitola's Grand Avenue will remain open to limited residential traffic, the Capitola City Council decided Thursday night.

The council rejected a plea by Councilman Dennis Beltram to close the entire cliff-top roadway to automobile and truck traffic.

The council accepted a proposal by City Public Works Director Craig French that allows two-way traffic on Grand Avenue between Cliff and Central Avenues, and one-way southbound traffic between Saxon and Oakland Avenues. The road would be closed to all vehicular traffic between Central and Saxon and Oakland and Hollister Avenues where the cliff face has fallen into the Monterey Bay, 90 feet below the roadway.

Traffic on Grand Avenue and the streets between it and El Salto Drive will be limited to residents only, and French was ordered to design traffic islands or some other type of barrier that will discourage sightseers from driving down to the cliff edge.

Soquel Creek Water, Pacific Gas and Electric and other utility companies will be asked by the city to remove or shut off their services on Grand Avenue and relocate them away from the cliff edge.

Beltram pressed for the immediate closure of the entire Grand Avenue roadway, arguing that another, possibly deadly slide, could occur at any time.

But consulting geologist Rogers Johnson of Santa Cruz disputed that belief.

He told the council that, based on past experience, slides are most likely to occur during the rainy winter months.

Johnson said the cliff face is composed of two very different materials.

The top 25 feet or so is composed of "very erodible" material called marine terrace deposits.

The bottom 75-80 feet is a much stronger Purisima consolidated Purisima material.

The Purisima material at the base of the cliff is eroded by surf that undermines the cliff and then causes "episodic collapse", Johnson said. The failure of the "solid" bottom layer brings down the weak upper layer too, Johnson said.

The Purisima layer has vertical fractures in it, Johnson told the council, and he likened it to a row of books on a shelf.

As the ocean, over a period of 10-15 years, "saws" away at the base of the cliff or shelf holding the "books", nothing happens until the entire book is undercut. Then the entire "book" collapses.

Johnson's description of the cliff face as a row of books prompted Councilman Jerry Clarke to suggest "asking the federal government for a series of very large bookends."

There is a second reason for the cliff's periodic collapse, Johnson said.

"A 'book' can also fall because water gets behind it in a crack and pushes it out," Johnson said. "The pressure gets so great that it

pops off a 'book'.

"That is what happened one and a half months ago," Johnson said, referring to the latest Grand Avenue slide.

Johnson told the council that there was no way to permanently stop the erosion.

"But there are way to deal with it," he added. "You can stop the sawing away at the base of the cliff by building a seawall.

"But in the case of Depot Hill, you also have to get rid of a lot of the water."

He said that could be done by either trenching and laying drain pipe, or by drilling horizontally into the cliff face (hydro-auguring).

Beltram asked if it was possible to predict when the next 'book' would pop off the cliff face.

Johnson said no, but then added that "almost all known instances have occurred in winter."

Johnson said he believes that the vibration from heavy surf also contributes to the failures, but told Beltram that vibration from automobile and heavy trucks would have a "minimal effect" on the cliff. "Surf action would create much more vibration," Johnson said.

Johnson won a round of applause from the city council members and the audience a few moments later when, answering Beltram's question on whether he would ban traffic completely on Grand Avenue, he said:

"That is what this is all about it. It's a political question, isn't it?"

"All I can tell you is that the cliffs are receding at an average rate of 0.9 — 1.3 feet a year for the last 20 years and that the retreat rate is episodic.

"Most of the time, the 'books' fail in the winter when the cliff is subjected to surf.

"In the summer," Johnson concluded, "vehicular traffic is an acceptable risk. In the winter, maybe not."

Beltram didn't appreciate Johnson's attempt at levity.

"I'm not sure what was meant by a 'political question'," Beltram said. "My view is that it is a safety issue and there shouldn't be much discretion given.

"Mr. Johnson," Beltram argued in vain, as it turned out, "has testified that for the next several months, the risk of vehicle travel is acceptable.

"We didn't go into what he believes is acceptable, but he didn't say categorically that it was safe.

"I really can't understand why any resident is willing to risk their lives to drive on Grand Avenue," Beltram added.

Several Grand Avenue residents pleaded with the council to not close the entire roadway.

The other four councilmen agreed with them. "It would be unfair to the residents who now have access to their homes to completely close off Grand Avenue," Councilman Michael Routh said.