#### Gautho, Julia

From:	Michael routh <qwakwak@icloud.com></qwakwak@icloud.com>
Sent:	Saturday, March 22, 2025 2:58 AM
То:	City Council
Subject:	[SPF Softfail] Capitola disasters Item 8B
Attachments:	appendixa_timeline_of_capitola_natural_hazard_events-jun2013-small.pdf

Please review the Capitola disaster history using the link below. It's interesting and informative. Do you see any log jams at the Stockton Ave bridge? In the past 178 years, any log jams that occurred were at the old Soquel Drive bridge in Soquel, not in Capitola

**Mick Routh** 

https://www.cityofcapitola.org/sites/default/files/fileattachments/community\_development/page/2484/appendix a\_timeline\_of\_capitola\_natural\_hazard\_events-jun2013-small.pdf

Sent from my iPhone

DATE	ТҮРЕ	IMPACT/PROPERTY DAMAGE	IMAGES
1791-1792	Flood	Santa Cruz Mission destroyed	
1847	Flood	Sawmill constructed on Soquel Creek (Rancho Soquel) destroyed. It had been built by John Hames and John Daubenbiss, who later obtained lands of the Rancho Rodeo, and became the founders of the town of Soquel (1852).	
1852	Flood	This was a major flood event but impact not recorded (no newspapers had yet been established).	
1/9/1857	Earthquake	Three earthquakes struck the Santa Cruz vicinity in a series. The tower and a portion of the Santa Cruz Mission Church collapsed.	
Jan. 1862	Storm/Flood	Major event—Soquel village inundated; mills, flumes, school, town hall, houses and barns were destroyed. Massive pile of debris went out to sea and then washed ashore at Soquel Landing.	
8/01/1863	Earthquake	Described as "severe shock."	
1863-64	Drought	Unknown	
10/08/1865	Earthquake	Unknown	
11/25/1865	Storm/High Tide	500 feet of the Soquel Landing wharf is lost; the remaining 600 feet are deemed "useless." Nearby barn blown down. Two young whales and a hair cloth sofa washed ashore. Waves described as "mountain high." Wharf damage is \$6,000. Pilings are deposited in a potato field beyond the beach.	

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12/14/1867	Storm	Wharves damaged in Aptos and Watsonville but no specifics are listed for Soquel Landing.	
9/19/1868	"Tidal Wave"	High tide described as tidal wave; damage unknown	
10/24/1868	Earthquake	"Second only to October 1865"	
2/03/1869	Storm, flood, slides, washouts	New bridge washed away at Soquel; roads impassable.	
12/23/1871	Southeast gale, flood, high tide	Water gauged to be "higher than flood of 1862."	
1/24/1874	Storm	Roaring surf. Rain threatens crops.	
12/04/1875	Flood	Compared to ferocity of the 1862 flood	
1877	Severe drought	Capitola's founder, S.A. Hall, was boarding 300 horses at his stable during the summer. The price of hay went to \$20.00 a ton due to the drought, and he lost money. When landowner F.A. Hihn increased the rent two years later, Hall couldn't afford the increase, and left.	

DATE	ТҮРЕ	IMPACT/PROPERTY DAMAGE	IMAGES
1/19/1878	Storm with tide	No Capitola impact recorded.	
7/01/1882	Earthquake	Worst since 1868	
1/30/1881	Storm	Conflicting reports on damage to Capitola. One report describes the resort as destroyed, while another stated damage was "not as serious."	
March 1883	Earthquake	Severe shock with several aftershocks recorded. No damage listed for Capitola.	
3/10/1884	Flooding and Washouts	Storm lasted five days. No Capitola impact described in newspapers	
12/16/1886	High surf	Capitola impact unknown	
12/30/1886	High surf	High seas; ships prevented from landing	
5/10/1887	Heaviest surf of the season	No damage reported for Capitola.	
9/18/1888	Earthquake	Described as extremely severe.	
1/05/1889	Storm	Damage to beach areas	
12/26/1889	Storm	Train service stopped; Santa Cruz County becomes isolated.	
1/06/1890	Storm/ Mudslides in mountains	Worst winter in 40 years; concern for grain crops	

DATE	ТҮРЕ	IMPACT/PROPERTY DAMAGE	IMAGES
1/27/1890	Floods	Judged to be as bad as 1852, 1862, and 1871; Capitola floods, footbridge and span of wagon bridge destroyed. Esplanade flooded—buildings to be replaced in "permanent form." A huge pile of debris appears along the beach.	
2/08/1892	High tides	Yacht "Petrel" washed ashore at Capitola; beachfront concessions damaged. Swimmers endangered.	
1/12/1899	Severe storm	Several days duration; damage unknown	
1/02/1900	Storm	Severe; no damage listed.	
3/14/1905	Storm	Judged to be "worst in 27 years." Capitola impact unknown.	
1/20/1906	Flood	Buildings from Loma Prieta Lumber Company camp above Soquel are destroyed. Debris at Capitola. Downtown Soquel floods. Landslides in hills.	

DATE	ТҮРЕ	IMPACT/PROPERTY DAMAGE	IMAGES
1906, 5:12am	Earthquake	Nine men killed in mudslide at the Loma Prieta mill above Soquel; surge on local creeks; water pipes broken, chimneys and walls cracked. Splits in the earth. Magnitude 8.3.	
4/27/1907	Storm	High water and flooding; Capitola damage unknown	
1/21/1911	Storm	Unknown	
3/07/1911	Storm	Unknown	
1911	Erosion	Incidents of cliff erosion along Grand Avenue prompt Lewis B. Hanchett, the owner of El Salto Resort, to begin chopping down trees on what is left of "Lover's Lane" along the bluff of Depot Hill. Hanchett believed that when the trees fell, they further hastened the cliff erosion.	<image/>

DATE	ТҮРЕ	IMPACT/PROPERTY DAMAGE	IMAGES
11/27/1913	Storm and tide	Great groundswells when the tide was highest. Waves ran across the beach to the Esplanade and water spread "clear to the railroad tracks." Union Traction Company tracks covered with sand. Water reached the Hihn Superintendent's Building (Capitola and Monterey Avenues), and waves were described as "monster." About 200 feet of wharf washed away. Stranded fisherman rescued and pulled underwater to safety. A huge pile of debris covered the beach and was cut-up for firewood. Fisherman Alberto Gibelli stranded when mid- section of wharf washed away.	
1/01/1914	Flood	Flood in Soquel and along Soquel Creek.	
11/28/1919	Storm	Damage high; no Capitola details	
12/27/1921	Storm	Described as "great."	

DATE	ТҮРЕ	IMPACT/PROPERTY DAMAGE	IMAGES
2/12 and 2/13/1926	High tides	Waves to 20 feet. Wharf damaged. Sea wall promenade broken at Venetian Courts. Apartments flooded. Breakers slammed into Esplanade, destroying boathouse/bathhouse, beach concessions. Tide hits the second floor of Hotel Capitola. Water runs a foot deep through village.	<image/>

DATE	ТҮРЕ	IMPACT/PROPERTY DAMAGE	IMAGES
		Top photo courtesy of Homer Berry	

DATE	ТҮРЕ	IMPACT/PROPERTY DAMAGE	IMAGES
10/28/1926	Earthquake	Damage recorded in Capitola	
1/24/1930	Erosion	About 130 residents appear before Santa Cruz County Supervisors to protest announced firing of 12-inch guns at Camp McQuaide, Capitola. Among petitioners claims are that "the terrific jar of the guns loosens the rim of the cliffs, and the earth is sloughing off to a dangerous degree."	
1928-1937	Drought	Reported as one of longest and most severe in state's history. Capitola is bordered by bulb ranches and floral nurseries, as well as poultry ranches and rabbit farms.	
12/26/1931	Storm	Soquel Creek rises; cleans lagoon at Capitola. Debris and wood deposited on the beach.	
12/28 and 12/29/1931	Storm and high tide	Damage to cottages and concessions at New Brighton Beach. Roads fill with "the muck of the sea." At Seacliff Beach, the concrete ship Palo Alto is shaken loose and moved about three feet as if "impelled by the spirit of the sea to fulfill its destiny and start moving." Soquel "River" widens to sixty feet, the highest since 1890, damaging property in Soquel and all the way to the mouth at Capitola. Orchards are lost with the rapid rise of water. Hundreds gather to watch the tides batter the concessions at the beach. There is a "vortex of water where the river and sea meet." The waterfront is piled high with flood debris thrown back up the beach.	Photo courtesy of Lee Lester

Provided by City of Capitola Historical Museum

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		The creek cuts across the beach and moves sand below the new outlet. Two months later, workers discovered a noticeable settling of the western end of the bathhouse, due to a break in the retaining wall. This left a portion of the bathhouse supported only by its concrete flooring. Repairs required rebuilding the retaining wall and replacing the fill.	
1/04/1935	Flood	Capitola Village floods; thirty feet of the sea wall is taken out. Beach playground disappears. Venetian Courts hit hard but damage minimal.	Photo courtesy of Lee Lester
1/09/1935	Erosion	Near the seawall cave-in by the site of the old hotel, a tree fell sixty feet from Grand Avenue. The "new favorite outdoor sport" for onlookers is to walk behind the sewer plant to see the fallen tree and debris of the broken sea wall.	
12/14/1936	Drought	Long drought ended by rain.	
2/14/1937	Flood	Soquel Creek floods in Soquel Village due to logjam at the bridge on Soquel Drive. Landslides in watershed.	
3/22- 23/1937	Storm	Boats in the streets at Capitola. An estimated \$3,000 is spent to repair the sea wall at the Venetian Court Apartments.	
2/10/1938	Storm winds	Winds up to 70 mph; 500 trees uprooted throughout county. Thunderous seas lashed the waterfront from Aptos to Capitola.	

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1/04/1939, 10:30pm	Wind and waves	Main damage to Capitola Beach Club at the Esplanade and Monterey Avenue. Water and sand carried into the structure and spread out over the dance floor to the bandstand. While the storm was still raging, thieves jimmied the back door of the club's tap room, and made away with two slot machines, along with the stands on which they had rested. Ocean also swept over the Esplanade during the night, and into town for a block-and- a-half, carrying sand and rocks, some 6-8 inches in diameter. Waves hit the front and sides of the pier. Sand and rocks were swept into lower terraces of the Venetian Court and covered porches of the casino on the waterfront, but did no serious damage.	
1/8/1940, 9pm-Noon	Storm	The "old Capitola casino" owned by Capitola Amusement Company was the principal victim of storm. Casino "capsized" shortly after 9 a.m. Plans for new structure announced immediately.	

DATE	ТҮРЕ	IMPACT/PROPERTY DAMAGE	IMAGES
		Photo courtesy of Homer Berry	<image/>
1/12/1940	Storm	Most rain "since 1890" reported.	
1/26/1940	Storm	"Shatters all records."	
2/27/1940	Severe Flood	Logs pile against bridge in downtown Soquel and village floods. Landslides in watershed.	Nain ST Soquel Feb 22th 1940

DATE	ТҮРЕ	IMPACT/PROPERTY DAMAGE	IMAGES
3/31/1940	Storm	"Wettest day in Santa Cruz history."	
12/23/1940	Storm	Flood conditions, winds	
2/09/1941	Near record storm		
4/2/1941	Severe Storm	Lasting many days Damage unknown	
4/15/1941	Earthquake	Santa Cruz is epicenter. No damage.	
6/02/1941	Earthquake	Sharp jolt	
6/18/1941		Capitola announces plans to lengthen flume	
12/09/1943	Gale winds	60-mile-an-hour winds create damage in county	
2/5/1945	Flood conditions	Local damage unknown	
April 1946	Tsunami	Earthquake in Aleutians produced 115-foot wave. Tsunami observed along the West Coast. A man was swept to sea in Santa Cruz. Ten-foot waves hit the coastline.	
1947-1949	Drought	Statewide	
8/01/1949	"Heaviest surf in 20 years"	18-foot waves recorded along the coast. Swimmer drowns in Santa Cruz.	

DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
Winter 1953	Giant swells	Ocean side of building at the end of the Capitola Wharf smashed in by waves 20-30 feet at high tide. Six pilings broken off.	<image/>
Prov		of Capitola Historical	

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4/15/1954	Earthquake	Falling plaster, broken chimneys, shattered dishes	
12/22/1955	Highest Flood	At the Soquel Drive bridge in downtown Soquel, remains of a four-room house and five cabins joined the rubble that wedged against the bridge abutments, causing the bridge to collapse. Overall damage to property in Soquel and Capitola exceeded \$1 million. Capitola damage included the Venetian Courts. Noble Creek and Tannery Creek also flooded. Photos courtesy of Carolyn Swift	<image/>

DATE	ТҮРЕ	IMPACT/PROPERTY DAMAGE	IMAGES
5/2/1955	Erosion	Sentinel: Capitola City Council Asks Cleanup Help "Believe it or not, a few people still occasionally throw garbage over the cliff, particularly along Grand Avenue. This not only creates health hazards, but also attracts rodents which burrow into and weaken the cliff, increasing the rate of cliff erosion" Photos courtesy of Covello and Covello Photography.	<image/>
4/3/1958	High Tide	Esplanade smashed by tides. Andy Antonetti's Merry-go- round damaged; horses are knocked off and washed down San Jose Avenue. Photo courtesy of Covello and Covello Photography.	

DATE	ТҮРЕ	IMPACT/PROPERTY DAMAGE	IMAGES
2/09/1960	Gale winds, heavy seas	<ul> <li>Power outages, slides, and winds 35-40 mph. Capitola hardest hit. Damage estimated at \$100,000. Ten Venetian Court apartments</li> <li>flooded. "A sign was ripped off the end of the wharf, rolled into a ball, and deposited into an apartment."</li> <li>Heavy waves smashed the beach restaurants, amusement concessions, and the merry-go-round. Rocks and logs strewn across the beach. Water pushed back under the Stockton Bridge, crushing the riverfront fences 100 yards on either side. An estimated \$5,000 in damage was done to the wharf building, but not much happened to the wharf itself. Cliffs crumbled on Grand Avenue.</li> <li>Police Chief Marty Bergthold called it "The worst storm in 15 years."</li> <li>A portion of Grand Avenue falls into the ocean.'</li> <li><i>15 people knocked to the ground by breakers. One woman injured.</i></li> </ul>	<image/>
Summer 1961	Birds fall from sky	Sooty Shearwaters fall from the sky; they are affected by toxins from red algae. Birds cover streets, wharf, and beach. Alfred Hitchcock inspired to move ahead with filming "The Birds."	

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1963	Erosion	Capitola City Council votes to start condemnation proceedings against Harry Hooper to obtain 320 feet of Hooper Beach for erosion control to protect Cliff Drive, where a high rise development was planned.	
1963	Erosion	Capitola City Council considers construction of seawall to control erosion from Grand Avenue to New Brighton Beach. The filled in area would also provide parking for approximately 400 cars.	
Dec. 20, 1964	Erosion	Construction begins on controversial Crest "prestige" 24-unit apartment house on the bay side of Grand Avenue on Depot Hill. Robert Lamberson, architect. Grand Avenue residents eventually sue the City over a disputed 10-foot setback for the project, which was built on a former park site at the top of the bluff. <i>Cost</i> \$500,000. In the 1980s, several units facing the bay were removed due to cliff erosion. <i>Photo courtesy of Minna Hertel.</i>	<image/>
12/20/1964	Flood threat	Storm and tide alarms City with a disappearing beach	

DATE	ТҮРЕ	IMPACT/PROPERTY DAMAGE	IMAGES
1/13/1965	Erosion	Capitola considers feasibility study to build 370-foot seawall along Grand Avenue. Backfilling below Grand Avenue would be used for a 1,000-car parking lot. Developers expressed desire to lease portion of the parking lot for a three-story, 20 unit convention hotel with restaurant and cocktail bar, to be built along the Grand Avenue bluff. First step was to have the beach deeded to the city by the state. \$1,228,000 estimated cost for parking lot \$275,000 estimated cost for hotel. Photo courtesy of Covello and Covello Photography.	
Summer 1965	Erosion	Capitola requests help from the State Department of Water Resources to solve the problem of disappearing sand, due to "failure of Santa Cruz harbor officials to install a recommended sand by-pass at the harbor jetty. <i>Photo courtesy of Al Lowry.</i>	

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Summer of 1965	Erosion	Off-Shore parking lot plan revised. Parking lot to extend 430 feet out into the way from the cliffs south of Capitola beach for about 1,500 feet. A breakwater is planned to extend 600 feet south to the end of the high cliff area, to prevent cliff erosion. The parking lot would also be used as an "overnight parking unit" with commercial concessions for tourists. Project to cover ten acres reclaimed from the bay. Photo courtesy of Covello and Covello Photography.	
December 1965	Storm	The City replaced 21 pilings under the wharf that were weakened by the storm. Capitola officials fear that waves would smash the seawall which protected sewer lines that ran from Capitola's pumping station to the East Cliff Sanitation District plant. That winter, the county public works department offered 500 cubic feet of rock rubble to be placed against the seawall.	

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1966	Erosion	Lifelong resident Violet Gooch hired Granite Construction to build a rip-rap wall at the base of the cliff at the end of the row of homes west of the wharf. (Hooper Beach) Photo courtesy of Covello and Covello Photography.	
January 1967	Storm	Reported as heavy	
1968	Erosion	Army Corps of Engineers begins work to construct a groin, completed the following spring. <i>Cost</i> \$160,000.	
January 1973	Storm	Beach littered with tons of driftwood after heavy rains.	
1975	Wind storm	40 knot winds downed trees and power lines.	
1976-77	Severe drought	Water conservation ordered	

DATE	ТҮРЕ	IMPACT/PROPERTY DAMAGE	IMAGES
1976	Strong winds	Winds downed power lines	
12/21/1976	High waves	Waves crash over wharf	
10/2/1979	High waves	At least eight sailboats were destroyed at Capitola during the morning. A powerful swell broke 15 boats from their moorings off the Capitola Wharf. The boats were pushed ashore by 12-to-20 foot waves that pounded the shoreline.	
Jan 1980	Flood	No damage reported	

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1/16/1980	Earthquake	Epicenter of 3.6 magnitude quake in Corralitos	

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January 3-5, 1982	Flood	Torrential rainfall, floods, mudslides countywide. Soquel Creek overflowed and flooded Soquel. The logjam at the bridge was estimated to be nearly 100 yards wide and 25 feet high. In Capitola, damage was comparatively minimal. The roadway leading to the Stockton Avenue bridge was damaged. The bridge bulkhead was undercut. Several of the Venetian Court units were damaged and a portion of the seawall gave way. <i>City officials estimated damage to public property at</i> \$270,889.	<image/>

DATE	ТҮРЕ	IMPACT/PROPERTY DAMAGE	IMAGES
12/17/1982	Storm	Restaurant on the newly renovated Capitola Wharf is damaged in storm.	
1/27/1983	High Tide	Capitola Wharf buildings, the Venetian Courts, the former boathouse building (Mr. Toots Downstairs) and all other business of the Esplanade were flooded. Water extends down San Jose Avenue and Lawn Way. Huge logs and debris are scattered through town. The giant surf took out a 30- foot section of the wharf which had been renovated in 1982. <i>Photos courtesy of Minna Hertel.</i>	

DATE	ТҮРЕ	IMPACT/PROPERTY DAMAGE	IMAGES
		Top photo courtesy of Minna Hertel; middle photo courtesy of Sandy Lydon.	
2/10/1983	High Tide	Surf rolls over the sea wall along the Esplanade. Water and debris extend as far as Capitola Avenue. (Photo courtesy of Minna Hertel)	

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3/1/1983	High Tide/strong winds	Waves damaged the restaurant at the end of the wharf, crashed over beach wall and entered restaurants on the Esplanade, "but damage was nothing compared to the million-dollar loss suffered in January," said Capitola City Manager Steve Burrell.	
2/15/1984	Erosion	Even though planner Susan Tupper warned the plan might not be a lasting solution, Capitola City Council approved a plan to stabilize its crumbling cliffs by installing artificial seaweed—a series of floating plastic fronds anchored to a sand-filled tube. The intent was to capture sand that drifts down the coast each year, thereby building a sandy beach in front of the cliffs below Grand Avenue. The "ersatz" seaweed lasted until the next major storm and then drifted to sea. <i>Cost \$120,000.</i> The cliff continues to erode at a rate of 12-18 inches per year.	

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DATE	ТҮРЕ	IMPACT/PROPERTY DAMAGE	IMAGES
1987-1992	Drought	Severe drought, water conservation ordered.	
10/17/1989, 5:04pm, Duration of 15 Seconds	Earthquake	Loma Prieta 6.9 mag earthquake with epicenter 3 miles north of Aptos. Comparatively, damage to Capitola homes and businesses was not as severe. Within the city, no buildings damaged and no one was injured physically. Damage countywide ultimately estimated to be about \$1 billion. (Top photo courtesy of Karen Nevis)	
March 1995	Flood	The creek rose near the village.	

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Winter 1996	Flood	Yards and basements of homes along both sides of Soquel Creek near the village were flooded.	
2007-2009	Drought	Water waste regulations strictly enforced; voluntary 15% conservation savings requested by local water providers.	
Winter 2008	High tide	Old bathhouse/boathouse building (Margaritaville/Stockton Bridge Grill) battered by swells. (Photo courtesy of Karen Nevis)	<image/>

DATE	TYPE	IMPACT/PROPERTY DAMAGE	IMAGES
3/11/2011	Tsunami	Capitola Village received warnings, but no damage	
March 24 and 26, 2011	Noble Creek and Tannery Creek Floods	Noble Creek floods village; Tannery Creek rushes through New Brighton Parking lot and undermines the cliff roadway.	<image/>

DATE	ТҮРЕ	IMPACT/PROPERTY DAMAGE	IMAGES
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