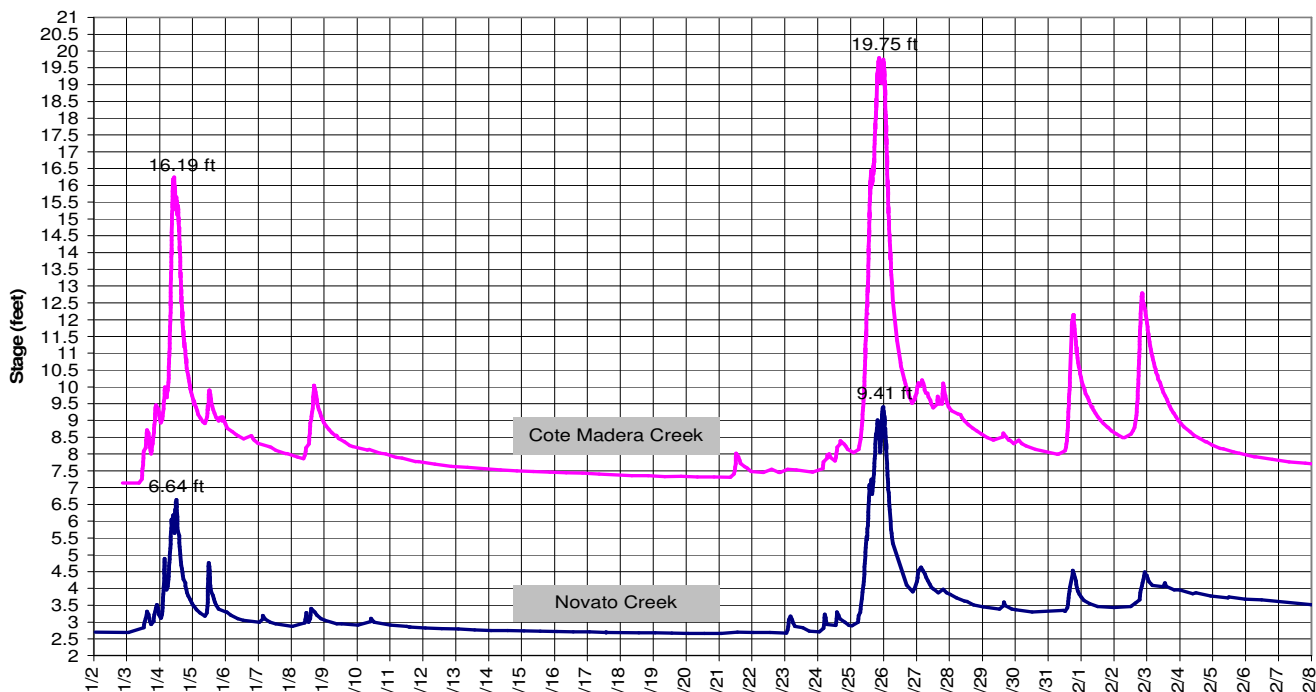


# Hydrological Review of January 2008 Storm Events

## Discharge

### Stage – Discharge Frequency Analysis for Corte Madera, Novato, and Vineyard Creeks

Stage for Novato & Corte Madera Creeks



Peak Stage-Discharge and Return Frequency

Creek	Date	Peak Stage (ft)	Peak Discharge (ft <sup>3</sup> /sec)	Rating
Corte Madera <sup>1</sup>	1/4/2008	16.19	2,050	~2 yr
	1/25/2008	19.75	3,375	>2 yr & <5 yr
Novato <sup>2</sup>	1/4/2008	6.64	335	< 2 yr
	1/25/2008	9.41	642	~ 2 yr
Vineyard <sup>3</sup>	1/4/2008	~4	305	~ 5 yr
	1/25/2008	~4	310	~ 5 yr

1. Peak stage reported as gauge height. Add 4.97 ft for stage in NGVD29.
2. Peak stage reported as gauge height. Add 14.48 ft for stage in NGVD29.
3. Peak stage reported as gauge height.

#### Basis for Ratings:

Corte Madera: Appraisal Level Hydraulic Engineering Study – Stetson (Dec 2007).

Novato: Arroyo Corte Madera, Corte Madera Creek, Coyote Creek and Novato Creek – Discharge Sampling, Field Methods and Procedures – Environmental Data Solutions (Feb 12 2008). Abridged Review Report for Flood Control and Allied Purposes on Novato Creek, Marin County, California – Department of the Army, San Francisco District, Corps of Engineers, San Francisco, California (August 1981).

Vineyard: Telephone discussion of unreleased study – Shawn Higgens of Kamman Hydrology & Engineering, Inc. (Feb 12 2008).

## Precipitation

### Intensity-Duration-Frequency Analysis for Kentfield & Novato

Kentfield Precipitation - Station: Marin Co. Flood Control

Period	Max Precipitation Received (inches)		Storm Rating <sup>4</sup>	
	1/4/2008 Event	1/25/2008 Event	1/4/2008 Event	1/25/2008 Event
1 hr	0.51	0.51	<2 yr	<2 yr
2 hr	0.94	0.83	<2 yr	<2 yr
3 hr	1.42	1.18	<2 yr	<2 yr
6 hr	2.32	2.17	<2 yr	<2 yr
12 hr	3.04	3.75	<2 yr	> 2 yr & < 5 yr
24 hr	4.61	4.88	<2 yr	> 2 yr & < 5 yr

4. Based on historical rainfall at Marin Co. Flood Control Kentfield gauge.

Novato Precipitation - Station: CIMIS (Black Point)

Period	Max Precipitation Received (inches)		Storm Rating <sup>5</sup>	
	1/4/2008 Event	1/25/2008 Event	1/4/2008 Event	1/25/2008 Event
1 hr	0.50	0.37	<2 yr	<2 yr
2 hr	0.89	0.70	> 2 yr & < 5 yr	<2 yr
3 hr	1.27	0.96	> 2 yr & < 5 yr	<2 yr
6 hr	2.43	1.90	> 5 yr & < 10 yr	> 2 yr & < 5 yr
12 hr	3.76	3.19	> 10 yr & < 25 yr	> 5 yr & < 10 yr
24 hr	4.51	4.25	> 5 yr & < 10 yr	> 5 yr & < 10 yr

5. Based on historical rainfall at Marin Co. Flood Control Novato gauge.

