

BY

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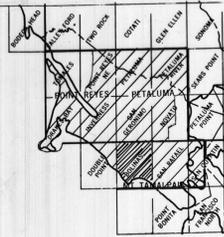
1975

CONSISTING OF BOLINAS, DOUBLE POINT, DRAKES BAY,  
INVERNESS, NOVATO, PETALUMA, PETALUMA RIVER, POINT REYES  
NE, SAN GERONIMO, SAN RAFAEL, SAN QUENTIN, AND TOMALES  
7 1/2 MINUTE QUADRANGLES

References Cited

Blake, M. C., Jr., Bartow, J. A., Frizzell, V. A., Jr., Schlocker, J., Sorg, D., Wentworth, C. M., and Wright, R. H., 1974, Preliminary geologic map of Marin and San Francisco Counties and parts of Alameda, Contra Costa and Sonoma Counties, California: U.S. Geol. Survey Misc. Field Studies Map MF-574, scale 1:62,500.  
Brabb, E. E., and Papey, E. H., 1972, Preliminary map of landslide deposits in San Mateo County, California: U.S. Geol. Survey Misc. Field Studies Map MF-344, scale 1:62,500.  
Nilsen, T. H., 1972, Preliminary photointerpretation map of landslide and other surficial deposits of the Mt. Hamilton quadrangle and parts of the Mt. Boardman and San Jose quadrangles, Alameda and Santa Clara Counties, California: U.S. Geol. Survey Misc. Field Studies Map MF-339, scale 1:62,500.

**BOLINAS**



INDEX MAP

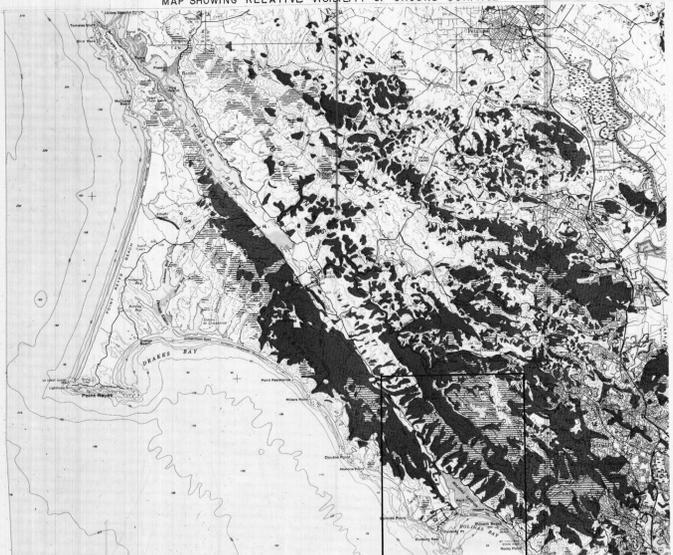
U. S. Geological Survey  
OPEN FILE REPORT  
This report is preliminary and has not been edited or reviewed for conformity with Geological Survey standards and nomenclature.

MAP SYMBOLS

- LANDSLIDES**
- Landslide identification confident to probable, except uncertain where queried; inferred movement style variable, including uncertain or indeterminate styles.
  - Small Landslide Deposits: arrows indicate direction of inferred down-slope movement and are generally centered over location of deposits; deposits generally larger than 100 feet but smaller than 500 feet in maximum dimension; confident to probable; queried where uncertain.
  - Block Slide: identification confident to probable, except uncertain where queried; consists of those landslides inferred to have moved downslope as relatively intact blocks.
  - Severe Creep: identification confident to probable, with "wrinkled" or similarly distorted soil surface, identifiable only on grassy or bare ground.
  - Flow: landslide inferred to have moved as a flow well beyond the toe of the failure slope.
  - Glide: landslide involving relatively intact blocks that is inferred to have formed by nearly horizontal movement.
  - Active Landslide: containing evidence of recent movement.

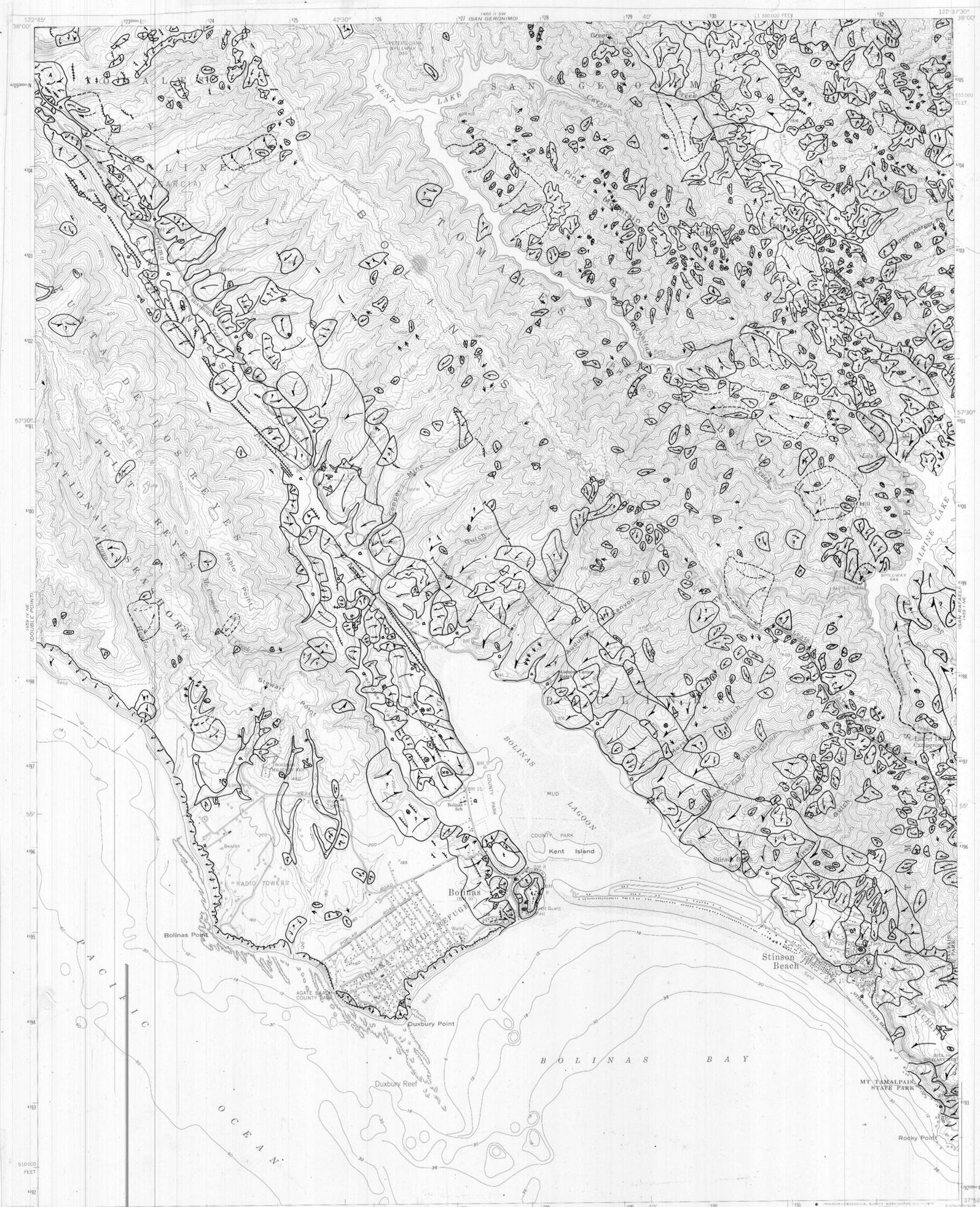
- ANOMALOUS TOPOGRAPHIC FEATURES**
- Scarp of uncertain origin\* possibly landslide related (line at base of scarp).
  - Sea Cliffs: cliffs backing beaches or facing open water, may produce falling rock and debris (line at top of cliff).
  - Anomalous Swale, Trench, or Small Valley\* possibly landslide related.
  - Closed Depression: "x" located at bottom, line along rim.
- ROCK AND SEDIMENT**
- Young Sedimentary Deposits with Constructional Topography: queried where identification uncertain; consists of alluvium, alluvial fans and some terrace deposits; east of and within the San Andreas Rift Zone includes colluvium and dune and beach sands that are distinguished west of that zone.
  - Colluvial Deposits: queried where identification uncertain.
  - Dune and Beach Sand: queried where identification uncertain.
  - Terrace Deposits: queried where identification uncertain; distinguished only locally.
  - Bedrock with Erosional Topography: queried where identification uncertain; ranges from semi-indurated sediment to hard rock, variably covered with soil, labeled only where identity not otherwise evident.
  - Quarry: symbol used exclusively east of the San Andreas Rift Zone.
- Limit of Landslide Mapping**  
landslides are not mapped outside scratch boundary

MAP SHOWING RELATIVE VISIBILITY OF GROUND SURFACE

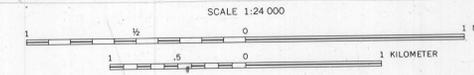


EXPLANATION OF MAP SHOWING RELATIVE VISIBILITY OF GROUND SURFACE

- Ground surface least visible, with the ground surface and outline of the ground surface commonly obscured by trees or combinations of trees and brush. Landslides most easily overlooked.
- Ground surface usually obscured by brush, but outline of ground surface is observable. Also locally contains areas of trees or grass too small to be shown.
- Surface of the ground covered by grass and easily visible. Includes some areas of trees or brush too small to be shown. Landslides most obvious.



The following aerial photographs were used in the preparation of the Bolinas Quadrangle: U.S. Department of Agriculture (ACCS) Series DMI taken in 1952 and 1953 including photographs numbered 15-11 to 15-109 to 15-116, and 15-120 to 15-141; 2K-162 to 145 and 15 to 176, 3K-158 to 163, and 4K-49 to 73 (1:20,000 scale).  
In addition, photographs taken for the U.S. Geological Survey in 1970 and 1971 were used supplementarily. These include, respectively, Series GS-VCM 2-195 to 197 (1:80,000 scale) and Series GS-VCM 1-11 to 13 and 43 to 46 (1:30,000 scale).



San Andreas Fault Zone and area to northeast of fault zone mapped by Carl Wentworth; area southwest of fault zone mapped by Virgil Frizzell.