

NOTE TO USERS

THIS SET OF MAPS PROVIDES GEOLOGIC DATA BASED ON DETAILED GROUND RECONNAISSANCE CONDUCTED DURING THE MONTHS OF APRIL THROUGH SEPTEMBER, 1979, INTERPRETATION OF AERIAL PHOTOGRAPHS, AND A REVIEW OF PUBLISHED AND UNPUBLISHED GEOLOGIC REPORTS AND MAPS. THEY ARE DESIGNED PRIMARILY FOR USE BY GEOLOGISTS, ENGINEERS, AND OTHER PROFESSIONAL EARTH SCIENTISTS. HOWEVER, THEY ARE NOT INTENDED AS A SUBSTITUTE FOR DETAILED SITE INVESTIGATIONS WHICH ARE NECESSARY FOR CONSTRUCTION PURPOSES.

WHERE SPECIFIC GEOLOGIC FEATURES ARE SHOWN ON THESE MAPS, FIELD CRITERIA WERE FOUND TO SUPPORT THEIR EXISTENCE. HOWEVER, ABSENCE OF APPROPRIATE SYMBOLS (E. G. LANDSLIDES, FAULTS, ETC.) FROM ANY PART OF THESE MAPS MAY NOT BE USED TO PROVE THE ABSENCE OF THOSE FEATURES.

ADDITIONAL EXPLANATION AND DESCRIPTION OF THE TYPES OF EARTH MATERIALS EXHIBITED ON THESE MAPS MAY BE FOUND IN THE REPORT ENTITLED: *GEOLOGIC HAZARDS ANALYSIS OF THE UPPER CALABAZAS CREEK WATERSHED, SARATOGA, CALIFORNIA, JANUARY 1980*, BY WILLIAM COTTON AND ASSOCIATES, INC. ALSO ANOTHER SET OF MAPS ENTITLED: *GROUND MOVEMENT POTENTIAL MAPS OF THE UPPER CALABAZAS CREEK WATERSHED, SARATOGA, CALIFORNIA* HAS BEEN PREPARED BY INTERPRETATION OF THE GEOLOGIC MAPS AND OTHER INFORMATION. THE GROUND MOVEMENT POTENTIAL MAPS MAY BE OF GREATER INTEREST TO THE NON-TECHNICAL USER.

GEOLOGIC MAPS of the UPPER CALABAZAS CREEK WATERSHED SARATOGA, CALIFORNIA

EXPLANATION

Surficial Deposits

- Af** ARTIFICIAL FILL: BROKEN ROCK MATERIALS DERIVED FROM QUARRY OPERATIONS, ROAD CONSTRUCTION, AND OTHER GRADING OPERATIONS; PREDOMINANTLY COMPOSED OF FRANCISCAN SANDSTONE AND SHALE DEBRIS, AND SANDSTONE AND CONGLOMERATE OF THE SANTA CLARA FORMATION.
- Col** COLLUVIUM: UNCONSOLIDATED MIXTURE OF THICK SOIL, WEATHERED BEDROCK AND SLOPE WASH DEBRIS WHICH HAVE ACCUMULATED ON MOST HILLSIDES AND IN SMALL CULLIES. MOST OF THE THICKER COLLUVIAL AREAS (I. E. GREATER THAN 3 FEET) ARE CHARACTERIZED BY SLOW, DOWNSLOPE SOIL CREEP ACTIVITY. THE CONTACT BETWEEN COLLUVIUM AND BEDROCK IS HIGHLY GENERALIZED; THEREFORE THE EXTENT OF COLLUVIAL MATERIAL CAN VARY CONSIDERABLY FROM THAT DISPLAYED ON THE GEOLOGIC MAP SHEETS.
- Qal** ALLUVIUM: UNCONSOLIDATED STREAM DEPOSITS WHICH ARE CONFINED TO THE PRESENTLY ACTIVE STREAM CHANNELS AND ADJOINING VALLEY FLOORS; CHARACTER OF THESE DEPOSITS RANGE FROM VERY COARSE, POORLY SORTED MIXTURES OF COBBLES AND SANDY GRAVELS TO FINE, CRUDELY STRATIFIED DEPOSITS OF SAND, SILT AND CLAY.
- Als** ACTIVE LANDSLIDE: ACTIVELY OR RECENTLY MOVING LANDSLIDE WITH FRESH, UNVEGETATED SCARPS AND BROKEN GROUND, UNDRAINED DEPRESSIONS AND RECENTLY DISTURBED MAN-MADE FEATURES OR VEGETATION.
- Dls** DORMANT LANDSLIDE: CURRENTLY INACTIVE LANDSLIDE WITH WEATHERED AND OVERGROWN SCARPS, ROUNDED HUMMOCKY SURFACE TOPOGRAPHY AND UNDISTURBED MAN-MADE FEATURES AND VEGETATION.
- Ols** OLD LANDSLIDE: RELATIVELY STABLE, INACTIVE LANDSLIDE WITH SUBDUED IRREGULAR TOPOGRAPHY, LOW SLOPE POSITION, WELL ESTABLISHED DRAINAGE SYSTEM AND UNDISTURBED VEGETATION.

Bedrock Units

- QTsc** SANTA CLARA FORMATION: SEMICONSOLIDATED TO LOCALLY CONSOLIDATED, CRUDELY STRATIFIED SEQUENCE OF INTERBEDDED, YELLOW BROWN TO RED BROWN CONGLOMERATE, POORLY SORTED SANDSTONE AND FINE-GRAINED ROCKS SUCH AS SILTSTONE, MUDSTONE AND CLAYSTONE; WEATHERS TO A LIGHT TAN TO DEEP RED, POORLY DEVELOPED, SANDY SOIL IN AREAS SITUATED OVER THE COARSE-GRAINED BEDROCK SECTIONS (I. E. CONGLOMERATE AND SANDSTONE) AND TO A DARK GRAY TO DEEP BROWN CLAY-RICH SOIL OVER THE SILTSTONE, MUDSTONE AND CLAYSTONE BEDROCK INTERVALS; EXPANSIVE PROPERTIES OF THESE SOILS VARY CONSIDERABLY FROM PLACE TO PLACE; HOWEVER, THEY GENERALLY BECOME HIGHLY EXPANSIVE IN THE AREAS UNDERLAIN BY FINE-GRAINED BEDROCK.
- KJf** FRANCISCAN COMPLEX: CONSOLIDATED TO LOCALLY UNCONSOLIDATED, TAN TO DARK GRAY, MASSIVE TO THICK BEDDED SEQUENCE OF FINE- TO MEDIUM-GRAINED, FRACTURED SANDSTONE (I. E. GRAYWACKE) INTERLAYERED WITH DARK SHALE AND SILTSTONE, CHERT, LIMESTONE AND GREENSTONE (I. E. ALTERED, MAFIC VOLCANIC ROCK); COMMON EXPOSURES ARE CHARACTERIZED BY Pervasively sheared and fractured bedrock; WEATHERS TO A CLAYEY, SILTY, SAND OR SANDY, SILTY CLAY SOIL OF MODERATE EXPANSIVITY.

Map Symbols

- 69** STRIKE AND DIP OF STRATIFICATION
- 56** STRIKE AND DIP OF VERTICAL STRATIFICATION
- 56** STRIKE AND DIP OF STRATIFICATION FROM OTHER SOURCES
- STRIKE AND DIP OF FRACTURE SURFACE
- STRIKE AND DIP OF VERTICAL FRACTURE SURFACE
- GEOLOGIC CONTACT: BETWEEN EARTH MATERIALS (I. E. BEDROCK AND SURFICIAL), DASHED WHERE APPROXIMATE, DOTTED WHERE CONCEALED.
- FAULT CONTACT: DASHED WHERE APPROXIMATE, DOTTED WHERE CONCEALED, QUERIED WHERE LOCATION IS UNCERTAIN; BARBS ARE LOCATED ON UPthrown SIDE OF FAULT, "D" AND "U" INDICATES DOWNthrown AND UPthrown SIDE OF FAULT.
- BOUNDARY OF LANDSLIDE DEPOSIT, DASHED WHERE APPROXIMATE, ARROWS SHOW DIRECTION OF DOWN SLOPE MOVEMENT, HATCHED LINES INDICATE HEAD-WALL SCARP AREA. QUESTION MARK INDICATES EXISTENCE IS UNCERTAIN. DIP OF FAULT PLANE
- QUARRY
- MAJOR CUT SLOPES
- MAJOR FILL SLOPES
- SPRING OR SEEPAGE AREA

MAP SHEET INDEX

