

## LIST OF MAP UNITS

|      |   |
|------|---|
| af   | Artificial fill (Holocene)  |
| Qa   | Active channel alluvium (Holocene)  |
| Qb   | Beach deposits (Holocene)   |
| Qe   | Estuarine deposits (Holocene)   |
| Qas  | Asphalt deposits (Holocene)   |
| Qdf  | Debris flow deposits (Holocene and/or upper Pleistocene)                  |
| Qac  | Alluvium and colluvium (Holocene and upper Pleistocene)                   |
| Qc   | Colluvium (Holocene and upper Pleistocene)                                |
| Qls  | Landslide deposits (Holocene and upper Pleistocene)                       |
| Qtc  | Travertine and/or caliche deposits (Holocene? and Pleistocene?)           |
| Qia  | Intermediate alluvial deposits (upper Pleistocene)                        |
| Qmt  | Marine terrace deposits (upper Pleistocene)                               |
| Qoa  | Older alluvial deposits (upper and middle Pleistocene)                    |
| Im   | Santa Barbara Formation (middle Pleistocene)                              |
| Qcg  | Conglomeratic unit (middle Pleistocene?)                                  |
| Qss  | Sandstone unit (middle Pleistocene?)                                      |
| QTst | Siltstone unit (lower Pleistocene and/or upper Pliocene)                  |
| Tsq  | Sisquoc Formation (Pliocene? and upper Miocene)                           |
| Im   | Monterey Formation (Miocene)  |
| Tmu  | Upper diatomaceous unit (upper Miocene)                                   |
| Tmm  | Middle shale unit (upper and middle Miocene)                              |
| Tml  | Lower calcareous unit (middle and lower Miocene)                          |
| Tr   | Rincon Shale (lower Miocene)  |
| Trs  | Siliceous shale interval (lower Miocene)                                  |
| Tv   | Vaqueros Formation (upper Oligocene)                                      |
| Tspu | Upper sandstone and mudstone unit (upper Oligocene)                       |
| Tspl | Lower conglomerate and sandstone unit (upper Oligocene and upper Eocene?) |
| Tg   | Gaviota Formation (upper Eocene)  |
| Tcw  | Coldwater Sandstone (upper and/or middle Eocene)                          |

Adapted from USGS Open-File Report 02-136.  
 Preliminary Geologic Map of the Santa Barbara  
 Coastal Plain Area, Santa Barbara County, California  
 S.A. Minor, K.S. Kellogg, R.G. Stanley, P. Stone,  
 C.L. Powell II, L.D. Gurrola, A.J. Seltling, and T.R. Brandt

## SYMBOLS

|  |   |
|--|---|
|  | <b>Contact</b> —Long dashed where approximately located; short-dashed where inferred; dotted where concealed; tic shows direction and angle of dip  |
|  | <b>Contact</b> —Inferred from 1928 air photos   |
|  | <b>Beveled surface border</b>   |
|  | <b>Marine terrace shore line angle</b> —Dashed where approximately located  |
|  | <b>Fault</b> —Long-dashed where approximately located; short dashed where inferred; dotted where concealed; queried where uncertain; ball and bar on apparent downthrown side; pair of opposing arrows show sense of strike-slip component of movement, queried where uncertain; tic shows direction and angle of dip; arrow shows trend and plunge of slickenside striae |
|  | <b>Fault</b> —Inferred from 1928 air photos; dashed where inferred; dotted where concealed; ball and bar on apparent downthrown side  |
|  | <b>Thrust fault</b> —Long dashed where approximately located; short dashed where inferred; dotted where concealed   |
|  | <b>Fault-line scarp</b> —Inferred from 3 m digital elevation model  |
|  | <b>Anticline</b>  |
|  | <b>Upwarp axis</b>  |
|  | <b>Syncline</b>   |
|  | <b>Downwarp axis</b>  |
|  | <b>Inclined joint</b> —Showing strike and dip   |
|  | <b>Horizontal bedding</b>   |
|  | <b>Inclined bedding</b> —Showing strike and dip   |
|  | <b>Vertical bedding</b> —Showing strike   |
|  | <b>Overturned bedding</b> —Showing strike and dip   |
|  | <b>Inclined bedding</b> —Showing approximate strike and direction of dip  |
|  | <b>Qas</b> —Asphalt deposits  |

FIGURE

4-1

**Geology Legend**  
 Existing Conditions Study of the Arroyo  
 Burro, Mission, Sycamore,  
 & Laguna Watersheds

Civil  
 Environmental  
 & Water Resources  
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DATE: 5/17/05  
 PROJECT: Santa Barbara Watershed  
 PROJECT NUMBER: 240073  
 DRAWN BY: JF  
 APPROVED: