

EXPLANATION

**Unit 1**  
**NORTHERN HARDWOOD FOREST TYPE**  
Basswood (*Tilia americana*), sugar-maple (*Acer saccharum*), and yellow birch (*Betula lutea*), or any one of the three, are present. Pitch-pine (*Pinus rigida*) and table-mountain pine (*Pinus pungens*) absent, or very rare. Usually contains red oak (*Quercus rubra*) and in some places chestnut-oak (*Q. prinus*); other species of oak absent; oaks generally few in number. Ground cover consists of ferns and thin-leaved herbaceous plants; climbing vines common. Characteristic of hollows, channelways, and flood plains

**Unit 2**  
**YELLOW PINE FOREST TYPE**  
Pitch-pine (*Pinus rigida*) and table-mountain pine (*P. pungens*), or either one of the two, are present. Basswood, sugar-maple, and yellow birch absent to very rare. Usually contains several species of oak (chestnut-oak, red oak, black oak—*Quercus velutina*, and scarlet oak—*Q. coccinea*) in the canopy layer and often scrub-oak (*Q. ilicifolia*) in the brushy under-story layer. Ground cover brushy with heath plants (*Ericaceae*) abundant. Characteristic of nooks

**Unit 3**  
**OAK FOREST TYPE**  
Pitch-pine, table-mountain pine, basswood, sugar-maple, and yellow birch absent or very rare. Forest consists largely of oaks (chestnut-oak, red oak, black oak, scarlet oak, and white oak—*Q. alba*). Ground cover generally ericaceous. Characteristic of side slopes

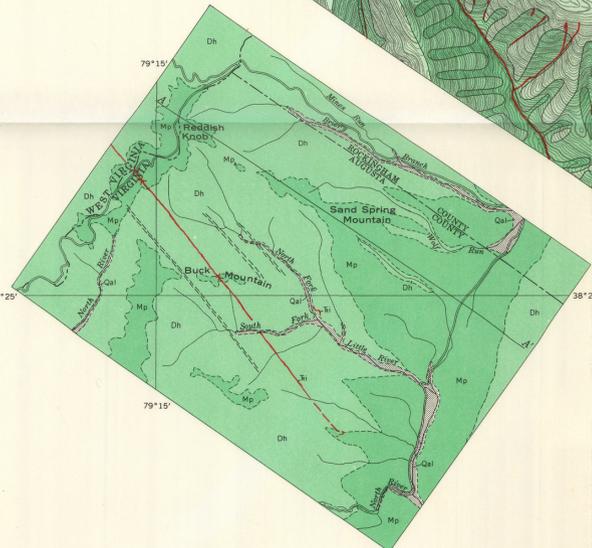
Chutes and channels created by the cloudburst flood of June 1949  
Ground generally bare rock, soil, or gravel, cobbles, and boulders. Young trees abundant; especially black locust and, on flood plains, sycamore

Boundary between units, showing forest types  
Location referred to in text  
Location of detailed map area referred to in text

Base map from Parnassus and McDowell quadrangles of U. S. Geological Survey

EXPLANATION

Q<sub>1</sub> Alluvium  
Intrusive igneous rocks  
Mp Pocomo formation Sandstone and shale  
Dh Hampshire formation Sandstone and shale  
Dc Chemung formation In section only  
Contact, approximately located from aerial photographs  
Fracture zone  
Outcrop of diabase dike



GEOLOGIC MAP AND SECTION

1 1/2 0 1 2 3 4 MILES

Vegetation and chutes mapped from aerial photographs and ground traverses in May-July 1955, and in April 1956 by John C. Goodlett and John T. Hack

MAP OF LITTLE RIVER AREA, VIRGINIA, SHOWING FOREST TYPES AND 1949 FLOOD DAMAGE

SCALE 1:31 680  
1 1/2 0 1 2 MILES  
CONTOUR INTERVAL 20 AND 40 FEET