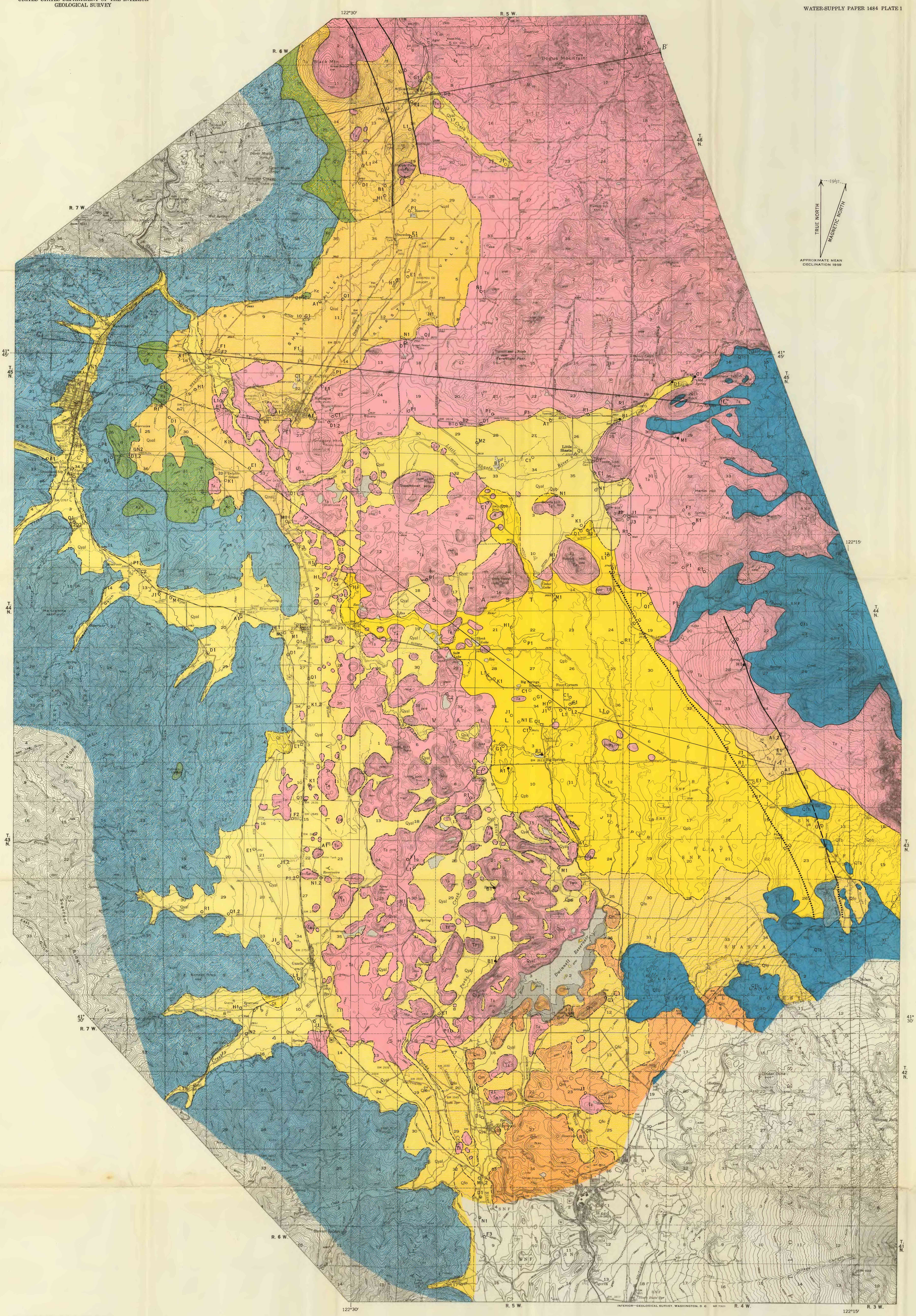

EXPLANATION

UNCONSOLIDATED ROCKS

QUATERNARY

Recent

Qyal — Younger alluvium
Stream-channel, flood-plain, and alluvial-fan deposits consisting of lenses of sand, gravel, and clay. Yields water for domestic, stock, and irrigation uses

Pleistocene to Recent

Qoal — Older alluvium
Poorly sorted boulders, gravel, sand, and clay. Generally yields water sufficient for domestic and stock uses

Qfo — Fluvioglacial deposits
Stratified to poorly stratified bouldery deposits. Yield water for domestic, stock, and irrigation uses at south end of Shasta Valley

Qm — Morainal deposits
Stratified to poorly stratified bouldery deposits. Yield water for domestic, stock, and irrigation uses at south end of Shasta Valley

Pleistocene

Qt — Terrace deposits
Gravel and sandy clay of limited extent; position generally above the water table

CONSOLIDATED ROCKS

QUATERNARY

Recent

Qpb — Plutos Cave basalt
Black vesicular olivine-rich augite basalt. Yields abundant water for domestic, stock, and irrigation uses

Pliocene to Recent

QTb — Volcanic rocks of the high Cascades
Lava flows of olivine basalt and basaltic andesite; important chiefly as a ground-water storage reservoir

TERTIARY

Eocene to Miocene

Ta — Volcanic rocks of the western Cascades
Chiefly andesitic lavas and pyroclastic ejecta and subordinate flows of basalt and dacite, beds of rhyolite tuff, and a few rhyolite domes. Generally supply sufficient water for domestic and stock uses. Yields water for irrigation in Gazelle-Grenada area

Eocene

Tu — Umpqua formation
Thin-bedded black shale and silty shale with occasional sandstone and conglomeratic layers. Locally yields water for domestic and stock uses

CRETACEOUS

Late Cretaceous

Kc — Chico formation
Well-bedded yellow to greenish-gray arkosic sandstone and graywacke; black shale in uppermost part. Locally yield water for domestic and stock uses

CRETACEOUS(?) AND OLDER

Pre-late Cretaceous

pK — Basement complex
Quartzitic schist, slightly metamorphosed sandstone, shale, and limestone; meta-volcanic greenstone and intrusive peridotite (altered to serpentine) and granitic rocks. Locally yields water for domestic and stock uses. Includes Abrams mica schist, Chanchelulla formation of Hinds (1931), and other rocks, undifferentiated

Contact between formations of consolidated rock

Unconsolidated-rock contact

Fault
Dashed where approximately located, dotted where concealed. U, upthrown side; D, downthrown side

Strike and dip of beds

Strike and dip of overturned beds

E1 Well location

D1 Spring

Base from U. S. Geological Survey quadrangle maps

Geology east of 122°30′W. and north of 41°30′N. after Howel Williams. Geology west of 122°30′W. and south of 41°30′N. by Seymour Mack, 1954

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C. MR 7321

GEOLOGIC MAP OF SHASTA VALLEY, CALIFORNIA, SHOWING LOCATION OF WELLS AND SPRINGS

Scale 1:62 500

1 0 1 2 3 4 5 Miles