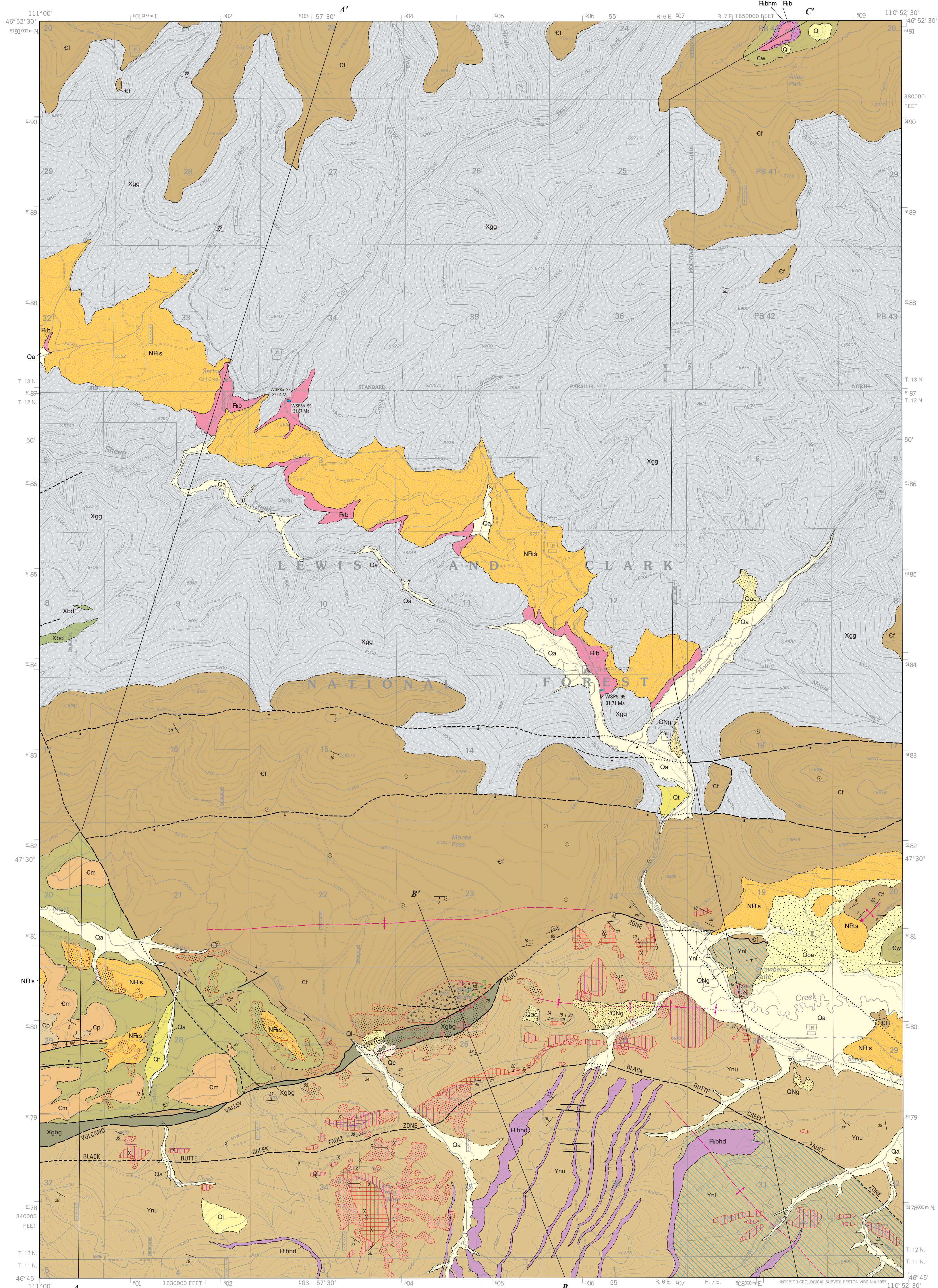




Base from U.S. Geological Survey Strawberry Butte 1:24,000-scale, 1987
Revised by U.S. Forest Service Strawberry Butte 1:24,000-scale, 1995
Projection and 1,000-meter grid
Universal Transverse Mercator ticks, zone 12
10,000-foot ticks, Montana coordinate system, central zone
1983 North American Datum

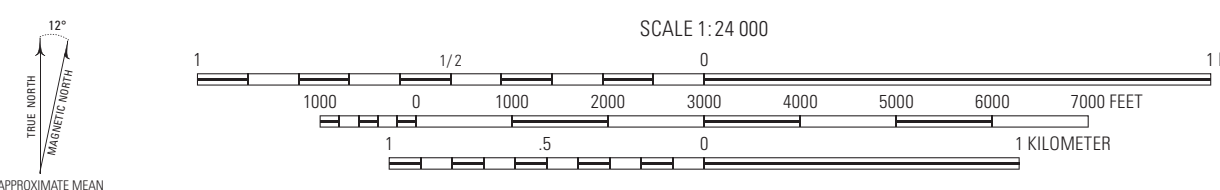
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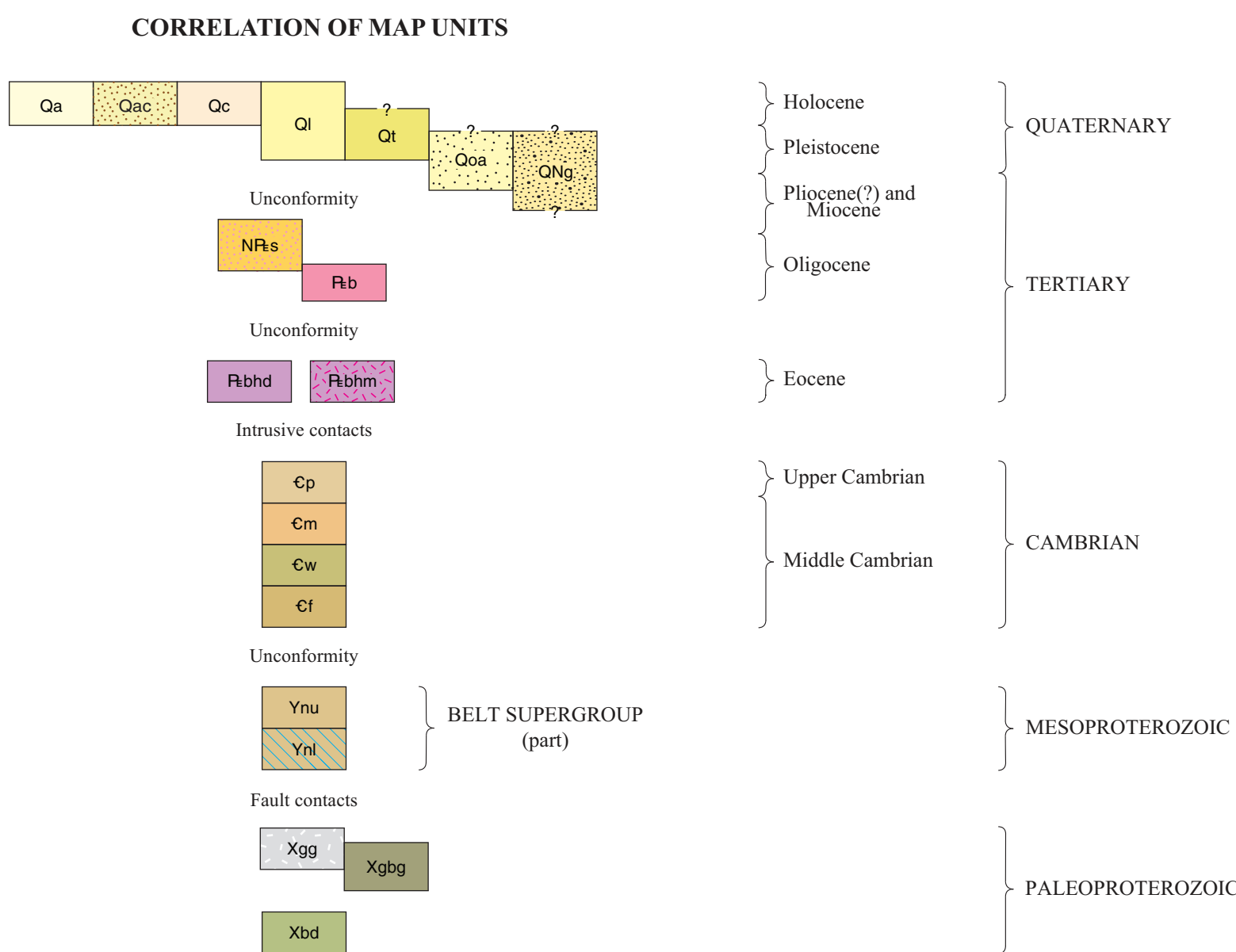
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Geology mapped by Mitchell W. Reynolds in July 1998 and July 1999, assisted by Sandra A. Reynolds
Digital topographic base map, digital compilation, and geographic information systems (GIS) database prepared by Theodore R. Brandt
Color design of map and figures by Mitchell W. Reynolds

CONVERSION FACTORS

U.S. Customary Units to International System		
Multiply	By	To obtain
inch (in.)	2.54	centimeter (cm)
inch (in.)	25.4	millimeter (mm)
foot (ft)	0.3048	meter (m)
mile (mi)	1.609	kilometer (km)



LIST OF MAP UNITS

- Qa Alluvium (Holocene)
- Qac Alluvium and colluvium, undivided (Holocene)
- Qc Colluvium (Holocene)
- Qi Landslide deposits (Holocene and Pleistocene)
- Qt Terrace gravel (Holocene? and Pleistocene)
- Qoa Old alluvium (Holocene? or Pleistocene)
- Qng Older gravel (Pleistocene? and Neogene?)
- NRs Sedimentary rocks (Miocene and Oligocene)—Shown as MOs in Reynolds and Brandt, 2005, 2007
- Rb Basalt (Oligocene)—Shown as Oub in Reynolds and Brandt, 2005, 2007
- Rbhd Biotite hornblende dacite (Eocene)—Shown as Eobhd in Reynolds and Brandt, 2005, 2007
- Rbhm Biotite hornblende monzonite (Eocene)—Shown as Eobhm in Reynolds and Brandt, 2005, 2007
- Cp Park Shale (Upper and Middle Cambrian)
- Cm Meagher Limestone (Middle Cambrian)
- Cw Wolsey Shale (Middle Cambrian)
- Cf Flathead Sandstone (Middle Cambrian)
- Belt Supergroup, part (Mesoproterozoic)
- Ynu Newland Formation (Mesoproterozoic)
- Ynl Newland Formation, upper part (Mesoproterozoic)
- Xgg Granite gneiss (Paleoproterozoic)
- Xgbg Granite gneiss and biotite gneiss undivided (Paleoproterozoic)
- Xbd Biotite hornblende diorite (Paleoproterozoic)

EXPLANATION

- Contact—Dashed where approximately located, short dashed, where inferred, dotted where concealed
- Boundary of mapped surficial material or feature—Approximately located
- Fault—Dashed where approximately located, short dashed, where inferred, dotted where concealed
- Normal Fault—Ball and bar on downthrown block; dashed where approximately located, short dashed where inferred, dotted where concealed; red arrow indicates fault attitude showing dip
- Anticline—Dashed where approximately located, short dashed where inferred, dotted where concealed; arrow shows direction of plunge
- Syncline—Dashed where approximately located, short dashed where inferred, dotted where concealed
- Bed or vein of iron-silicate gossan
- Outcrop of iron oxide gossan zones—In bedrock of the Newland Formation
- Area of iron-oxide-stained bedrock, bedrock fragments and soil—Near zones of sulfide mineralization
- Area of caliche boulders, blocks and cobbles of iron-silicate gossan—Derived from nearby zones of sulfide mineralization
- Area of alluvial and colluvial boulders, cobbles, and blocks—Derived from Paleozoic strata east of the quadrangle or from Flathead Sandstone on Black Butte
- Zone of brecciated and sheared rock adjacent to fault
- Horizontal bedding
- Inclined bedding—Showing strike and dip
- Vertical bedding—Showing strike
- Overturned bedding—Showing strike and dip
- Inclined shear fracture—Showing strike and dip
- Inclined layering in layered gneiss or schist—Showing strike and dip
- Inclined slickensides—Showing bearing and plunge
- Location and age of dated rocks—Showing sample number and radiometric age
- Selected locality of trace fossils in Flathead Sandstone
- Prospect pit in iron oxide gossan zone
- Exploration trench in iron oxide gossan zone

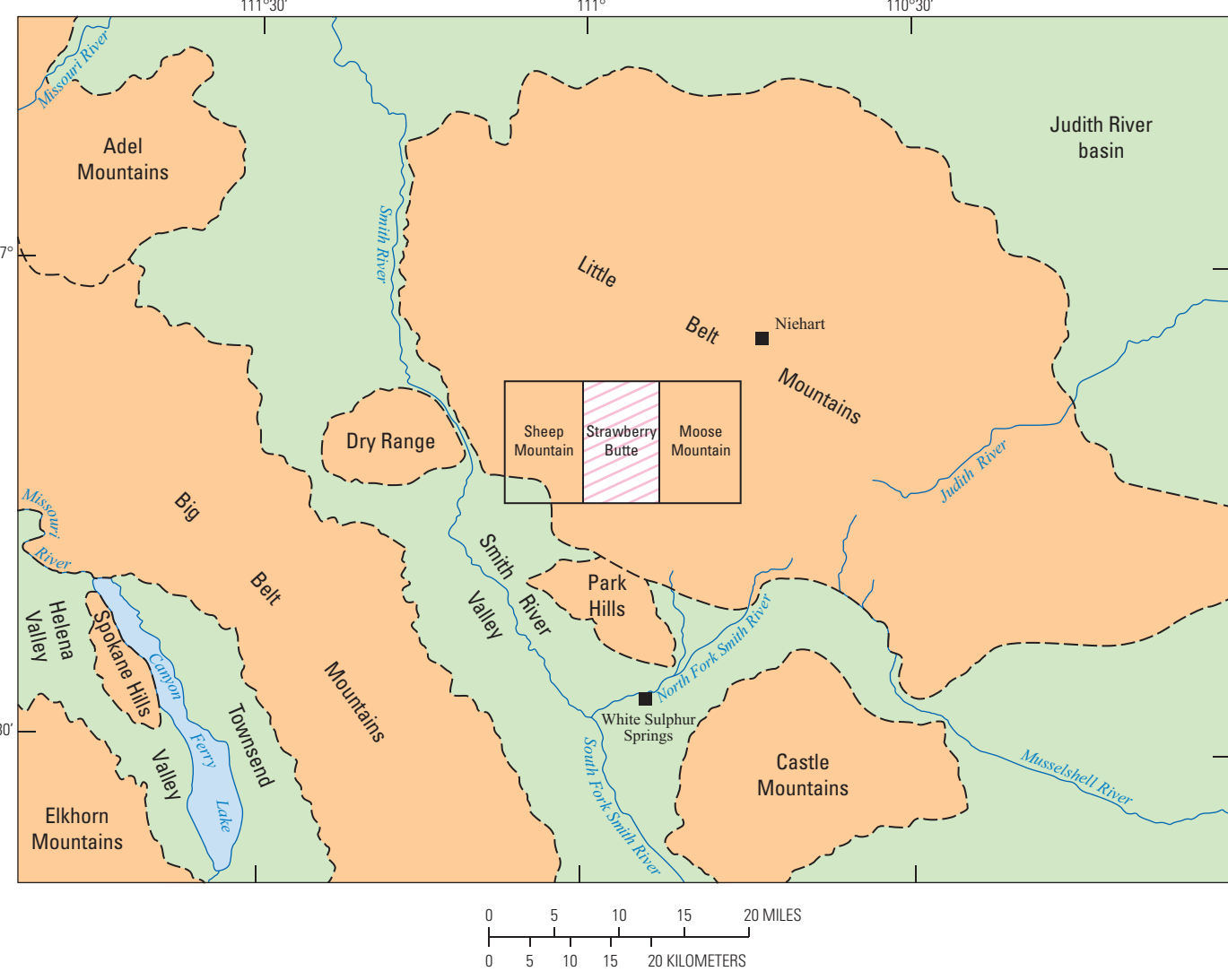


Figure 1. Generalized physiography of west-central Montana, showing location of the Strawberry Butte and adjacent 7.5' quadrangles referred to in the text and annotated with names of selected topographic and cultural features; orange shading indicates highlands and green indicates lowlands.

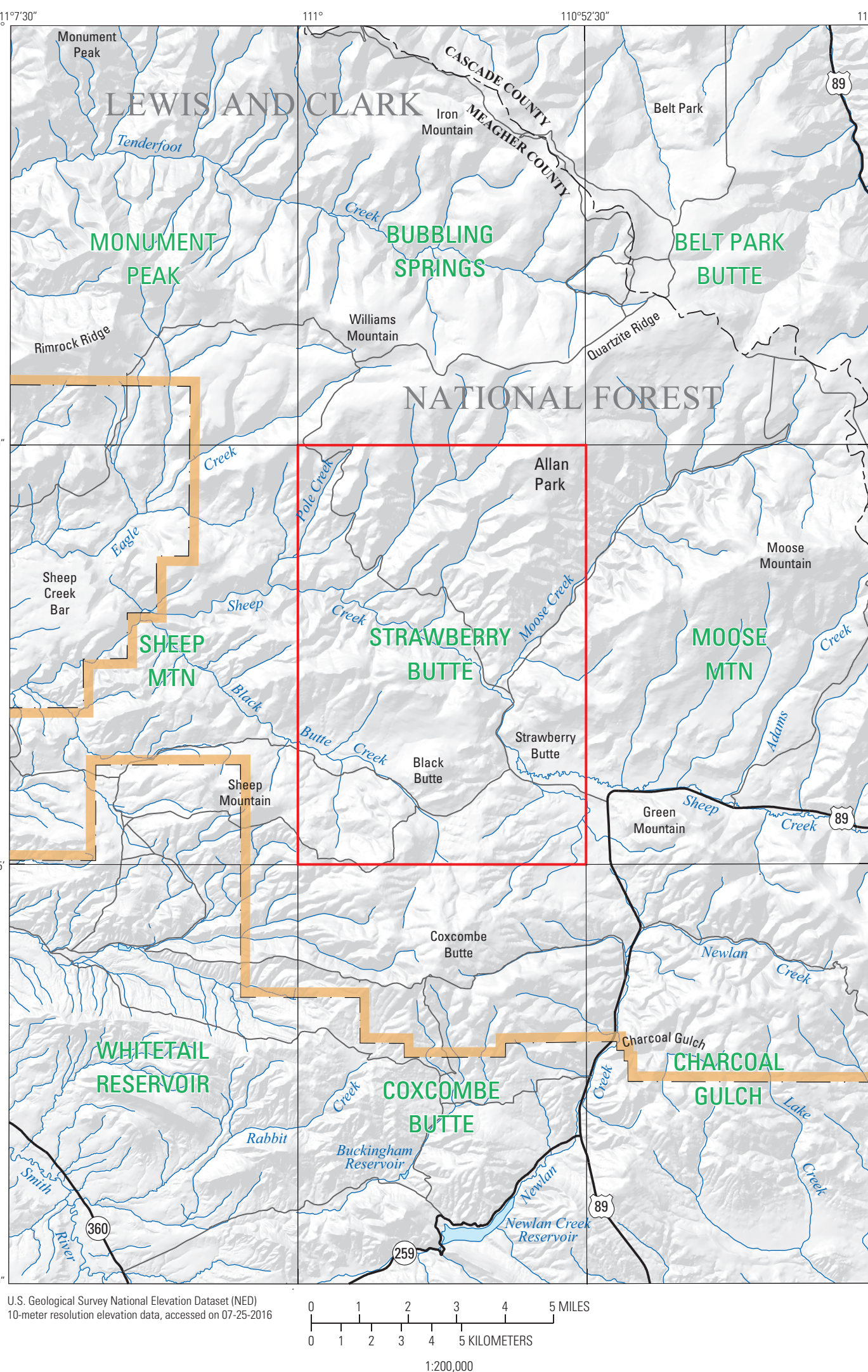


Figure 2. Shaded relief map of the Strawberry Butte 7.5' quadrangle (red rectangle) and adjacent areas showing features referred to in the accompanying pamphlet. Selected streams, blue; roads and vehicle trails, black and gray lines respectively; quadrangle names, green; Lewis and Clark National Forest exterior boundary, dashed and orange lines. There are private inholdings within the boundaries of the National Forest shown on this map.

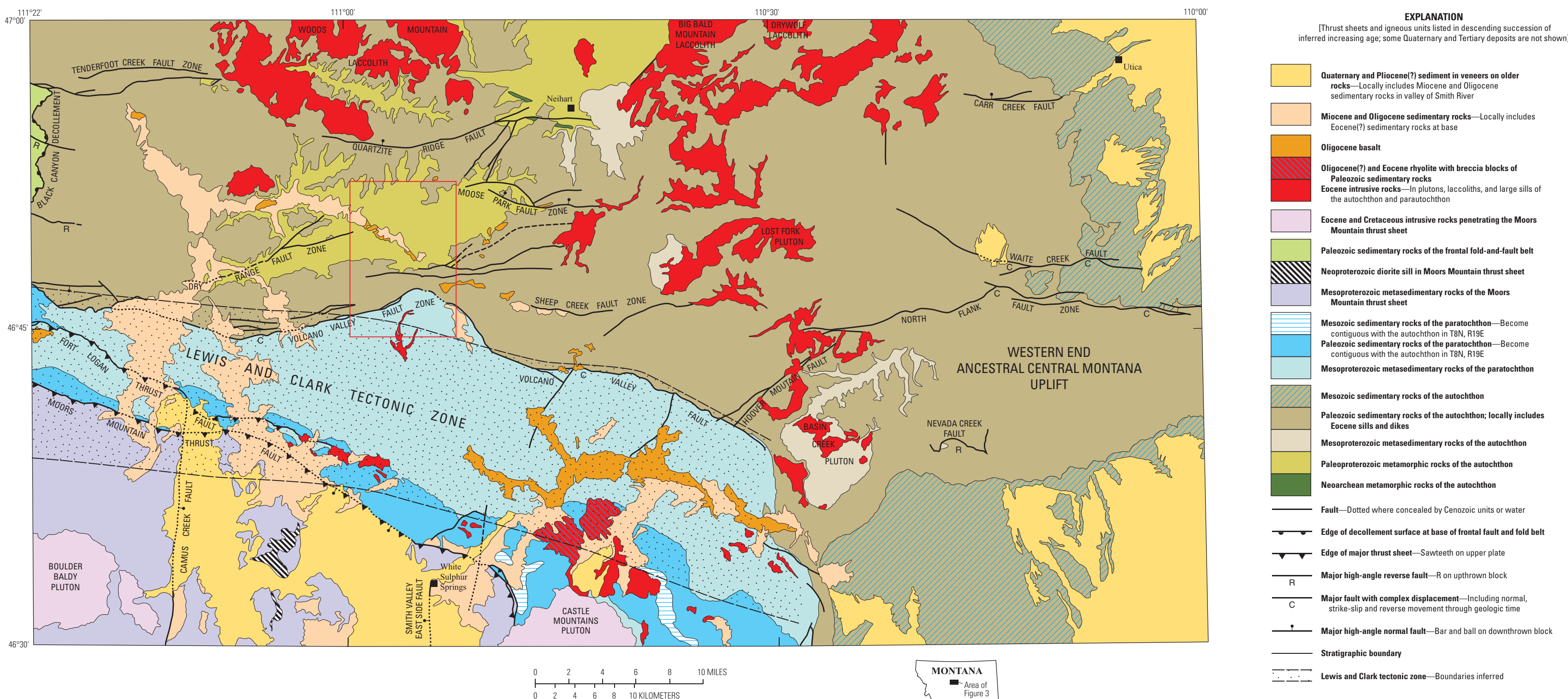


Figure 3. Tectonic map of west-central Montana showing principal faults, major tectonic elements, and igneous rock bodies. Tertiary strata and major areas of Quaternary sediments. Thrust sheets and igneous units listed in descending succession of inferred increasing ages within tectonic elements (for example, autochthon and parautochthon). Red rectangular outline shows the location of the Strawberry Butte 7.5' quadrangle (modified from Reynolds and Brandt, 2005, figure 2, sheet 1).

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Geologic Map of the Strawberry Butte 7.5' Quadrangle, Meagher County, Montana

By
Mitchell W. Reynolds and Theodore R. Brandt
2017

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