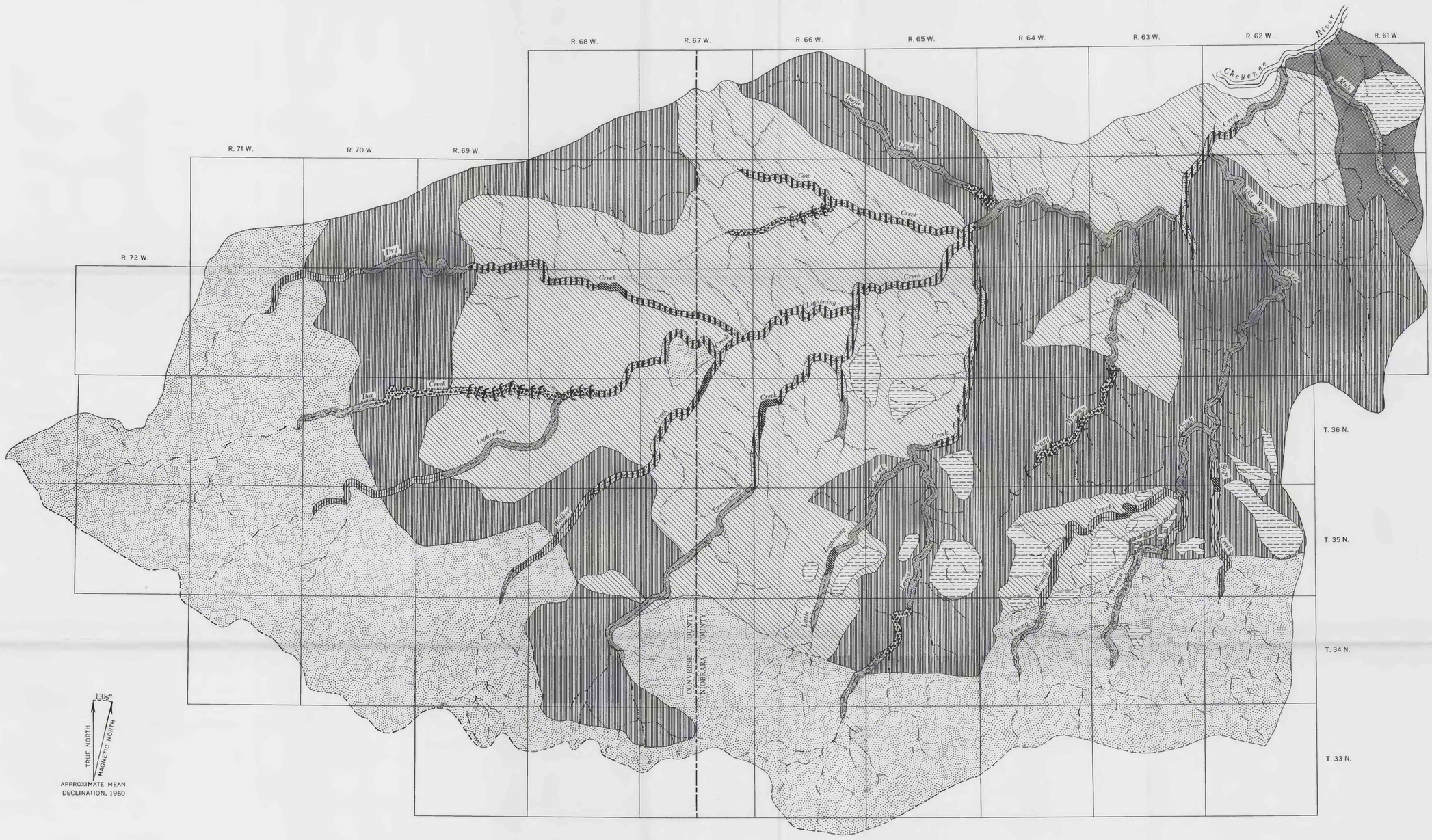
UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WATER-SUPPLY PAPER 1531
PLATE 5



EXPLANATION

UPLAND AREAS

Slopes generally less than 10 percent; vegetative cover good; sheet and gully erosion slight; low sediment yield to tributary channels. Surficial mantle is moderately sandy, and infiltration rates are relatively high

Slopes range from 10 to 15 percent; vegetative cover fair; sheet and rill erosion locally severe; gully erosion locally severe; minor aggradation in tributary channels; moderate sediment yield to tributary channels. Surficial mantle is fine grained, and infiltration rates are generally low

Slopes range from 4 to 6 percent; vegetative cover fair; sheet erosion locally very severe; relatively high sediment yield from areas of severe sheet erosion; moderate to high sediment yield to tributary channels. Surficial mantle is fine grained, mostly derived from Pierre shale; and infiltration rates are low

Slopes range from 5 to 25 percent; vegetative cover fair to poor; sheet and rill erosion generally severe; gully erosion locally severe; includes most major erosion problem areas with high sediment yield to tributary channels. Surficial mantle is medium to fine grained, and infiltration rates are generally low

Slopes range from 60 to 100 percent; badlands; vegetative cover poor to nonexistent; sheet and rill erosion very severe. Includes all areas of active badland erosion in beds of White River group and elsewhere throughout the basin. Infiltration rates lowest in the basin

STREAM CHANNELS

Main channels and flood plains extensively aggraded; many reaches where channels are nearly filled and well grassed. Trap efficiency of valley floor is very high. Tributary has low sediment yield to Cheyenne River. No evidence of bank cutting

Main channels are well grassed with little evidence of bank erosion; channels are well defined and able to transport much of the sediment derived from upland sources although channel systems have a very low sediment yield

Main channels have well-grassed banks and barren floor eroded in either alluvium or coarse gravel. Channel system able to transport most of the sediment contributed to them. Little evidence of bank erosion

Main channels are actively eroding in alluvium; streambank erosion severe in localized reaches. Channel system able to transport most of sediment contributed, and sediment yield is high from bank cutting

Main channel may be severely eroded, but storage and diversion dams constructed on main channels trap much of the transported sediment and appreciably reduce sediment yield

Reaches of stream channel and adjacent flood-plain areas where erosion control measures could be initiated

Earth-fill diversion dam

MAP OF LANCE CREEK BASIN AND ADJACENT AREAS, WYOMING, SHOWING EROSIONAL CHARACTERISTICS OF UPLANDS AND CHANNELS

SCALE 1:250 000

4 0 4 8 12 16 MILES

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