B. BIG THOMPSON RIVER, EAST OF DRAKE TO LOVELAND

EXPLANATION

▲ Landslides—Includes rockslides (RS) and debris slides (DS)

EROSION AND DEPOSITION ALONG MAIN STREAMS

Minor to moderate channel scour within floodway of Big Thompson River; intensive scour restricted to outsides of relatively sharp bends and areas along constricted reaches. Channel deposits range from sand to boulder gravel; overbank sand to pebbly sand occurs locally. Colored areas represent approximate extent of flooding

Widespread deposition of sand to pebbly sand. Includes some small deposits of pebbly to cobbly gravel. East of Big Thompson Canyon to South Platte River, overbank sediments are dominantly sand, grading downstream to dominantly silt.

Fine stipple indicates areas of widespread deposition of pebbly to cobbly gravel; includes some small deposits of pebbly sand and cobbly to bouldery gravel. Coarse stipple indicates widespread deposition of cobbly to bouldery gravel; includes some small deposits of pebbly to cobbly gravel

Local areas of intense lateral scour

Extensive channel scour within floodways of Big Thompson River and North Fork; deposition of cobble to boulder gravel. Bouldery gravel bars common, especially along insides of bends. Overbank sands to boulder gravels occur locally. Colored areas represent approximate extent of flooding. Fine stipple indicates areas of widespread deposition of cobbly to bouldery gravel; includes some small deposits of pebbly to cobbly gravel. Coarse stipple indicates widespread deposition of bouldery gravel; includes some small deposits of cobbly to bouldery gravel

Intensive channel scour throughout floodway of Big Thompson River; local deposition of cobbly to bouldery gravel. Much of the sandy to bouldery material scoured from the channel was deposited farther downstream along reaches with lower gradients. Overbank sands to boulder gravels occur locally. Colored areas represent approximate extent of flooding. Coarse stipple indicates local deposition of bouldery gravel

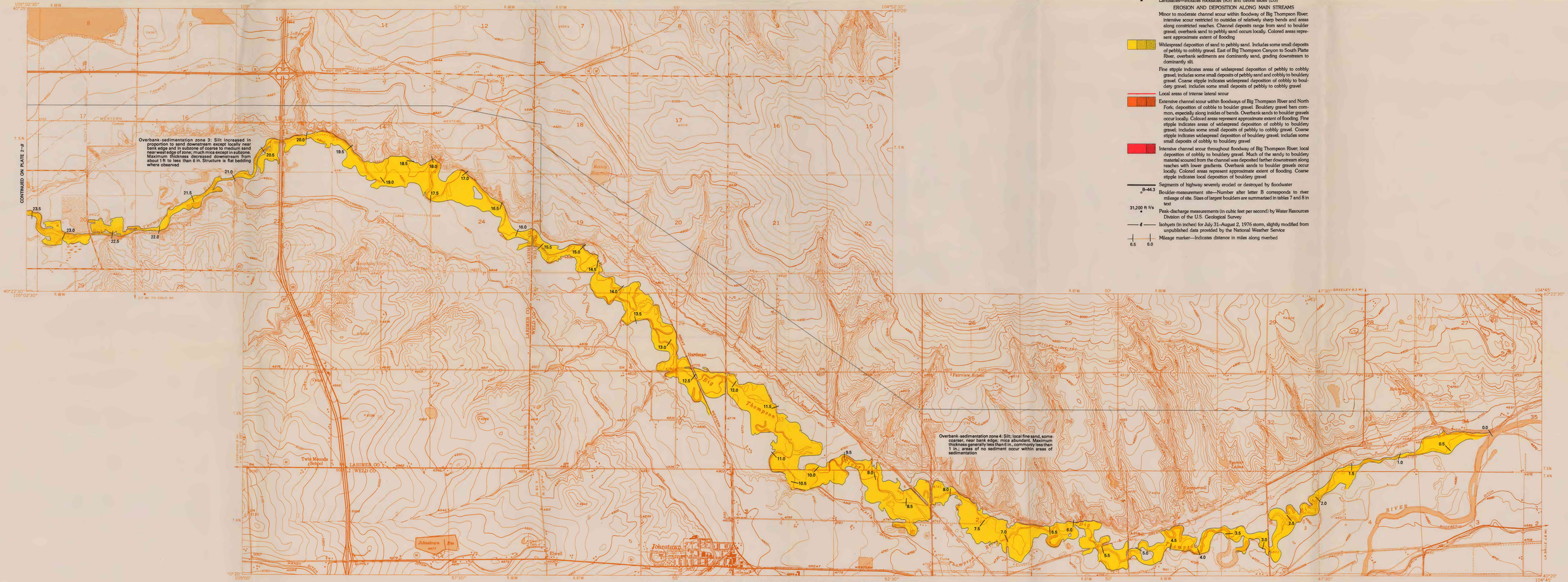
Segments of highway severely eroded or destroyed by floodwater

B-44.3 Boulder-measurement site—Number after letter B corresponds to river mileage of site. Sizes of largest boulders are summarized in tables 7 and 8 in text

31,200 ft³/s Peak-discharge measurements (in cubic feet per second) by Water Resources Division of the U.S. Geological Survey

4 Isohyets (in inches) for July 31–August 2, 1976 storm, slightly modified from unpublished data provided by the National Weather Service

6.5 6.0 Mileage marker—Indicates distance in miles along riverbed



C. BIG THOMPSON RIVER, EAST OF LOVELAND TO CONFLUENCE WITH THE SOUTH PLATTE RIVER

Base from U.S. Geological Survey, Drake, 1962; Johnstown, 1950, photorevised 1969; Loveland, 1960, photorevised 1969; Masonville, 1962, photorevised 1971; Milliken, 1950, photorevised 1969; and Windsor, 1950, photorevised 1969

APPROXIMATE MEAN DECLINATION, 1979

SCALE 1:24 000

1 ½ 0 1 MILE

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 10 AND 40 FEET
DOTTED LINES REPRESENT 20-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

COLORADO

Flood effects east of the mountain front mapped by E. J. Crosby, 1976. Flood effect in Big Thompson Canyon mapped by P. W. Schmidt and R. R. Shroba, 1976.

☆U.S. GOVERNMENT PRINTING OFFICE: 1979—677-035/4

GEOLOGIC AND GEOMORPHIC EFFECTS OF THE 1976 STORM AND FLOOD, BIG THOMPSON RIVER AREA, COLORADO