
**New surficial mapping initiative
in New Brunswick**

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A comprehensive understanding of surficial geology is essential to the socio-economic fabric of New Brunswick. It is the responsibility of the New Brunswick Department of Natural Resources (NBDNR), Geological Surveys Branch (GSB) to delineate, describe, and analyze surficial materials in order to generate client-oriented products that: (1) help to locate construction aggregate resources (i.e. sand, gravel, clay, etc.); (2) are relevant to the mineral exploration community; (3) provide useful baseline geological information to agencies involved with land-use planning, groundwater resources, forestry, and agriculture, and; (4) help to identify landforms and sediment characteristics that present hazards to public health and safety.

In 2009, the Geological Surveys Branch initiated a mapping program with the aim of improving the quality and availability of surficial geology maps for southern New Brunswick. Although various types of surficial geology data have been systematically collected over the past three decades, only modest effort had gone into synthesizing surficial geology maps. Current datasets could be considered under-utilized. Older maps are available for some areas, but these maps don't share a common mapping approach, scale, or legend. In some cases they are inadequate or difficult for clients to access. Throughout the past decade, the GSB has put a lot of emphasis on the compilation and publication of standardized digital bedrock geology maps. Likewise, the current initiative to compile 1:50 000 scale surficial geology maps for southern New Brunswick should be viewed as the first step towards a standardized set of surficial geology maps for New Brunswick.

Through consultation with staff from NBDNR, other government agencies, and industry, a new mapping methodology and unit classification system was developed. The new mapping approach relies equally on the acquisition of field data and aerial photo/satellite radar/LIDAR imagery interpretation. Field mapping and the compilation of existing data were initiated in 2009 and to date, 1:50 000 maps have been compiled for the St. George (NTS 21 G/2), McDougall Lake (NTS 21 G/7), and Fredericton Jct. (NTS 21 G/10) map areas. A complete set of maps for southwestern New Brunswick (NTS 21G) will be made available to NBDNR clients and the general public within 5 years.