

QUATERNARY GEOLOGY LEGEND

ARROW AND DUNCAN LAKE RESERVOIRS

POST-GLACIAL

A

Floodplain Deposit: sand, gravel, silt, minor clay and organic material; includes various undifferentiated features of modern floodplains including deltas; Af, floodbasin; Ao, area of overbank deposition; Ac, area of channel deposition (point bar accretion); Ai, largely inactive floodplain.

F

Fan Deposit: poorly sorted gravel, sand, silt and clay (fine materials generally restricted to gently sloping toe of fan); in a fan shaped deposit. Fi, inactive fan (little present day deposition) Fr, used in Duncan Lake reservoir and Arrow Reservoir south of Johnstone Creek, synonymous with Fi.

O

Organic Deposits: thick mantles of peats in various stages of decomposition, marl and mixtures of these materials with inorganic materials.

C

Colluvium: loose material accumulated on the surface of other unconsolidated deposits by various processes of mass movement; same general texture as underlying deposits but primary structure obliterated and fines often removed.

S

Talus: angular rubble accumulated as a mantle on bedrock or as a cone or fan at the foot of a steep bedrock slope.

S<sub>b</sub>

Bedrock Slide: blocks and rubble in finer matrix of crushed rock; ridged and hummocky form-slide involving consolidated rock.

POST-GLACIAL AND LATE GLACIAL

T

Terrace Deposit: dominantly sand, some gravel; benches above level of present floodplain; To largely overbank material (sand and silt); Tc, largely channel deposits (gravel and sand); Tm, small terraces, multiple levels; T<sub>130</sub> etc. approximate level of terrace above present base level (Lardeau River terraces only); Td, delta terrace.

T<sub>k</sub>

Kettled Terrace Deposit: gravel and sand; flat surfaced but containing closed depressions.

T<sub>VW</sub>

Valley-wall Terrace: bench of glacio-fluvial material deposited in a position requiring ice on one or more sides for deposition (kame terrace). In most places identical to T but interpreted to have been deposited marginal to ice. In the Castlegar area and south these terraces consist dominantly of fine grained sand and silt.

L

- Lacustrine sediment undifferentiated: silt, clay and sand.

L<sub>bx</sub>

Beach Complex: mainly gravel and sand; includes various beach and related features.

L<sub>t</sub>

Thick Lacustrine deposits: silt, clay and fine-grained sand (more than 10' thick), flat to gently rolling surface.

L<sub>v</sub>

Veneer Lacustrine deposits: silt, clay and fine-grained sand (less than 10' thick), too thin to mask underlying topography.

L<sub>h</sub>

Hummocky Lacustrine deposits: silt, clay and fine-grained sand; hummocky, ridged and kettled; formed by melting of glacier buried by lacustrine deposit.

H

LATE GLACIAL AND GLACIAL

Hummocky Glaciofluvial deposits: irregular hummocky, ridged and kettled topography; includes kames, kame and kettle, eskers etc.; fluvial material (gravel and sand) deposited on, within, under, or against ice.

M

Undifferentiated Drift: <sup>till</sup> areas without distinguishing features.

M<sub>v</sub>

Thin Drift: thin till; topographic form controlled by underlying bedrock; may include up to 25% outcrop.

M<sub>d</sub>

Drumlinoid Moraine: till characterized by streamlined and linear features.

M<sub>h</sub>

Hummocky and Ridged Moraine: till characterized by sharp ridges, hummocks and kettles.

OTHER

D<sub>b</sub>

Drift Bench: glacial drift and older deposits; discontinuous benches of undetermined origin (may be constructional glacial or erosional "Older").


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
Basin Fill: postglacial, glacial, or older deposits; flat to gently sloping floor of basin or valley not differentiated into other units.


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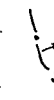
Rock: areas consisting dominantly of bedrock but in many areas containing patches of thin drift.

SYMBOLS

 Escarpment - in unconsolidated deposits.

 Boulders - on surface of unconsolidated deposits.

 Beach - beach ridge.

 Slide plane: potential landslide failure plane.

Scale 1:40,000

This legend is to accompany maps of the Quaternary geology of Arrow and Duncan Lake Reservoirs in south central British Columbia. Arrow Reservoir, north of Johnstone Creek (about 49°40 N Lat.), was mapped in 1968 by R.A. Achard; Arrow Reservoir, south of Johnstone Creek, and Duncan Lake Reservoir were mapped in 1967 and 1966 by R.J. Fulton. Mapping was limited to areas that will be flooded by the two Columbia Treaty dams and to several adjacent valleys easily accessible by road.