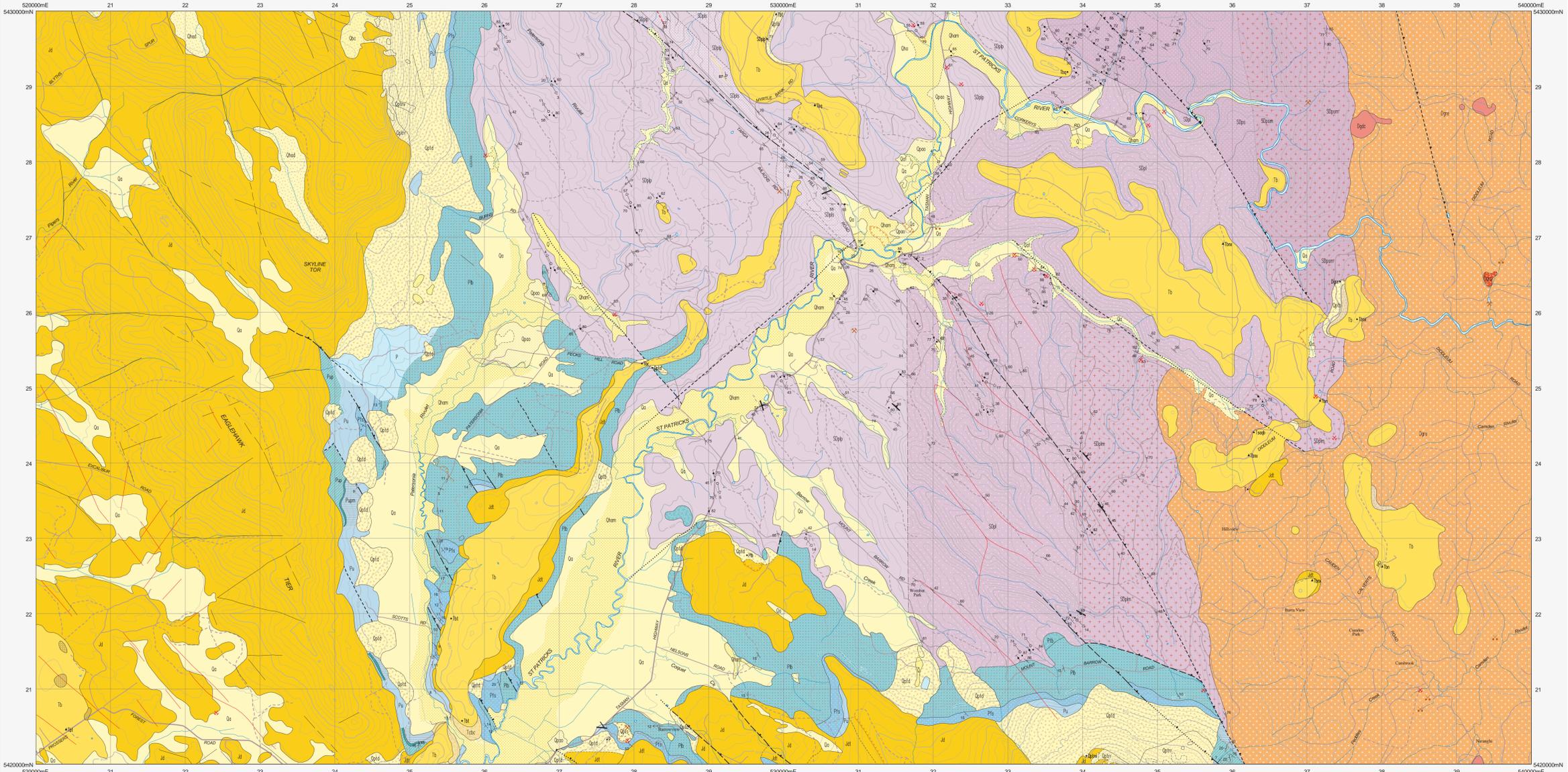


# PATERSONIA

Scale: 1:25 000



QUATERNARY	CENOZOIC
Qhcb	Marsh and swamp deposits (Qhcb). Highland marsh with peaty clay overlying unsorted dolerite boulders (Qhcb).
Qha	Stream alluvium, swamp and marsh deposits (Qha).
Qham	Alluvial gravel sand and clay, generally peaty clay with small weathered dolerite blocks and granules and magnetic psilofine in dolerite areas, sand and clay with abundant quartzite pebbles elsewhere, with in addition basalt pebbles along the St. Patricks River and its tributaries (Qa), alluvial fans (Qaf).
Qpa	Alluvial and marsh deposits of modern flood plains, gravel, sand, silt and clay (Qpa).
Qpaa	Older alluvium of river terraces (Qpaa).
Qprr	Scree deposit of angular unsorted dolerite boulders and rock masses (Qprr).
Qprrv	Cliff-fall scree deposits of Qprr type without surficial fines and non-vegetated, includes some orthoquartzite block field deposits (Qprrv).
Qbc	Dolerite block field deposits probably underlain by clay from weathered dolerite (Qbc).
Qbt	Talus deposits (Qbt), basalt talus (Qbt), talus dominantly of large dolerite boulders and in places subordinate Permian rocks (Qbt), silty talus derived from lower Permian rocks (Qbt).
Qpt	Sandstone derived talus (Qpt).
Qptm	Talus of Mathinna Supergroup rocks (Qptm).
Jdt	In situ Jurassic dolerite or deposits of transported dolerite masses of uncertain Cenozoic age (Jdt).
Tf	Ferricrete (Tf).
Tfb	Laterite derived from Palaeogene - Neogene basalt (Tfb).
Tb	Basalt (Tb), including local occurrences of quartz tholeiite (Tb), olivine tholeiite (Tb), transitional olivine basalt (Tb), olivine nephelinite (Tb) and olivine nephelinite with thersite xenoliths (Tbn).
Tap	Sub-basalt deposits of volcanoclastic sandstone and clay (Tap).
Tsap	Sub-basalt, poorly-consolidated, slightly micaceous quartz-rich sandstone and conglomerate interbedded with siltstone and mudstone (Tsap).
Tbc	Sub-basalt, Jurassic dolerite boulders in clayey-gravel matrix with some quartz pebbles (Tbc).
Tsb	Quartzite breccia with clasts to 300mm and siliceous matrix, of Palaeogene - Neogene or Palaeozoic age (Tsb).

PERMIAN	PALEOZOIC	LOWER PALAEOZOIC SUPERGROUP	REKUNIAN SERIES	TAHMAMAN STAGE
Pup	Undifferentiated glacio-marine mudstone siltstone and poorly-sorted sandstone, unconsolidated matrix fossils (Pup).			
Pu	Predominantly unfossiliferous, poorly-sorted, fissile and non-fissile mudstone with few graptolites and rare thin sandstone beds, coarser-grained beds may be profusely bioturbated towards top of unit (Pu).			
Pupm	Pebbly felspathic sandstone unit (possible correlate of Garcia Sandstone (Pupm)).			
Pum	Predominantly grey and brown weathering mudstone with few small limestones, subordinate micaceous siltstone and poorly-sorted pebbly sandstone intervals, fossiliferous beds of places (Pum).			
Pu = Pu + Pup + Pum				
P	Dominantly well-sorted quartz sandstone, usually cross-bedded and commonly with interbedded and interstratified carbonaceous shale minor thin basal conglomerate lenses and rare coal (Lifey Group) (P).			
Pf	Predominantly grey and brown weathering mudstone with few small limestones, subordinate micaceous siltstone and poorly-sorted pebbly sandstone intervals, fossiliferous beds of places (Pf).			
Pb	Dominantly mudstone and siltstone, upper interval with basal fossiliferous limestone and alternating mudstone, siltstone and conglomerate beds, lower interval predominantly of grey to black mudstone with some limestones and subordinate pebbly sandstone and conglomerate beds, some fossils (Pb).			
Pm	Clastic limestone indicated in places (Pm).			
Pb	Predominantly dolomitic with striated and faceted clasts of pebble to cobble size, sorted conglomerate in some areas (Pb).			
SDps	Dominantly fine-grained turbiditic quartz-rich sandstone, with some interbedded siltstone. Contains volcanic (pp) fossil fragments (SDps).			
SDpm	Metamorphosed by granitic intrusion (SDpm). (SDps - Sliding Sandstone).			
SDpm	Dominantly thin-bedded siltstone, with interbedded fine-grained quartz-rich sandstone increasing towards top. Contains Silurian (Ludlow) graptolites (SDpm). Metamorphosed by granodioritic intrusion (SDpm).			
SDpl	Basal moderately bioturbated deep marine siltstone with significant shale and mudstone. Contains Silurian (Ludlow) graptolites (SDpl) in some areas, but not distinguished in metamorphosed areas (SDpl).			
SDp	Thin-bedded siltstone, with significant interbedded fine-grained quartz-rich sandstone (SDs), (SDs, Slaps, SDap, Slaps - Low Slap Siltstone).			

PALEOZOIC	DEVONIAN	MIDDLE DEVONIAN
Dp	Basalt (Dp), including local occurrences of quartz tholeiite (Dp), olivine tholeiite (Dp), transitional olivine basalt (Dp), olivine nephelinite (Dp) and olivine nephelinite with thersite xenoliths (Dbn).	
Dp	Dolerite (Dp), in situ Jurassic dolerite or deposits of transported dolerite masses of uncertain Cenozoic age (Dp).	
Dp	Basalt (Dp), including local occurrences of quartz tholeiite (Dp), olivine tholeiite (Dp), transitional olivine basalt (Dp), olivine nephelinite (Dp) and olivine nephelinite with thersite xenoliths (Dbn).	
Dp	Dolerite (Dp), in situ Jurassic dolerite or deposits of transported dolerite masses of uncertain Cenozoic age (Dp).	

SCOTTSDALE BATHOLITH	IGNEOUS ROCKS
Dgpc	Basalt (Tb), including local occurrences of quartz tholeiite (Tb), olivine tholeiite (Tb), transitional olivine basalt (Tb), olivine nephelinite (Tb) and olivine nephelinite with thersite xenoliths (Tbn).
Dgpc	Dolerite (Dp), in situ Jurassic dolerite or deposits of transported dolerite masses of uncertain Cenozoic age (Dp).
Dgpc	Basalt (Tb), including local occurrences of quartz tholeiite (Tb), olivine tholeiite (Tb), transitional olivine basalt (Tb), olivine nephelinite (Tb) and olivine nephelinite with thersite xenoliths (Tbn).
Dgpc	Dolerite (Dp), in situ Jurassic dolerite or deposits of transported dolerite masses of uncertain Cenozoic age (Dp).

Geological boundary - position accurate or approximate.	Strike and dip of bedding - right way up; overturned; facing unknown.
Geological boundary - position inferred.	Horizontal bedding.
Transition geological boundary - position approximate, possibly metamorphic in origin.	Strike and dip of vertical bedding - facing indicated by tic; facing unknown.
Unconformable boundary - position accurate or approximate.	Strike and dip of penetrative cleavage, vertical.
Metamorphic boundary - position approximate.	Trend and plunge of bedding - primary cleavage intersection lineation (L1); vertical.
Fault - position accurate or approximate.	Trend and plunge of minor fold hinge line, unspecified relative age, vergence defined.
Fault - position inferred.	Trend and plunge of minor fold hinge line, unspecified relative age, vergence defined.
Thrust fault (teeth on upper plate) - position accurate or approximate.	Trend and plunge of minor fold hinge line, unspecified relative age, vergence defined.
Thrust fault (teeth on lower plate) - inferred.	Trend and plunge of minor fold hinge line, unspecified relative age, vergence defined.
Normal fault (downthrown side indicated) - position accurate or approximate.	Trend and plunge of minor fold hinge line, unspecified relative age, vergence defined.
Normal fault (downthrown side indicated) - concealed.	Trend and plunge of minor fold hinge line, unspecified relative age, vergence defined.
Fault - inferred from airborne magnetic data.	Trend and plunge of minor fold hinge line, unspecified relative age, vergence defined.
Lineament visible on aerial photographs.	Strike and dip of outcrop-scale fault of unspecified relative age - type unspecified; normal, thrust.
Lineament visible in airborne magnetic data.	Strike and dip of outcrop-scale fault of unspecified type and relative age.
Scarp.	Trend and plunge of slickensides, movement sense unspecified; HW relative movement up/plunge.
Slope break.	Glacial striae, showing sense of movement.
Scarp.	Notable small outcrop with rock unit indicated.
(white line) Limit of mapping of sub-unit within undifferentiated rock unit.	Field station for adjacent readings on the map.

Geological boundary - position accurate or approximate.	Strike and dip of bedding - right way up; overturned; facing unknown.
Geological boundary - position inferred.	Horizontal bedding.
Transition geological boundary - position approximate, possibly metamorphic in origin.	Strike and dip of vertical bedding - facing indicated by tic; facing unknown.
Unconformable boundary - position accurate or approximate.	Strike and dip of penetrative cleavage, vertical.
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Fault - position accurate or approximate.	Trend and plunge of minor fold hinge line, unspecified relative age, vergence defined.
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Thrust fault (teeth on upper plate) - position accurate or approximate.	Trend and plunge of minor fold hinge line, unspecified relative age, vergence defined.
Thrust fault (teeth on lower plate) - inferred.	Trend and plunge of minor fold hinge line, unspecified relative age, vergence defined.
Normal fault (downthrown side indicated) - position accurate or approximate.	Trend and plunge of minor fold hinge line, unspecified relative age, vergence defined.
Normal fault (downthrown side indicated) - concealed.	Trend and plunge of minor fold hinge line, unspecified relative age, vergence defined.
Fault - inferred from airborne magnetic data.	Strike and dip of outcrop-scale fault of unspecified relative age - type unspecified; normal, thrust.
Lineament visible on aerial photographs.	Strike and dip of outcrop-scale fault of unspecified type and relative age.
Lineament visible in airborne magnetic data.	Trend and plunge of slickensides, movement sense unspecified; HW relative movement up/plunge.
Scarp.	Glacial striae, showing sense of movement.
Slope break.	Notable small outcrop with rock unit indicated.
Scarp.	Field station for adjacent readings on the map.
(white line) Limit of mapping of sub-unit within undifferentiated rock unit.	Mineral deposit location - alluvial/alluvial.

Compiled by S.M. Forry, B.Sc.(Hons) and D.B. Seymour, B.Sc.(Hons), Ph.D., 2006 from the following sources (see responsibility diagram):

A. LONGMAN, M.J., MATTHEWS, W.L. and ROWE, S.M. 1964. Geological Atlas 1:63 300 Series. Sheet 59 (3015). Launceston. Tasmania Department of Mines.

B. CAINE, T.N. 1983. The Mountains of Northeastern Tasmania. Balkema, Rotterdam.

C. MATTHEWS, W.L. 1969. Geology proposed dam site Patersonia. Plan 3227. In MATTHEWS, W.L. 1971. Patersonia dam site. Technical Report, Tasmania Department of Mines, 14, 90-108.

D. MATTHEWS, W.L. 1988. Detailed geology proposed dam site Patersonia. Contour plan 3229. In MATTHEWS, W.L. 1971. Patersonia dam site. Technical Report, Tasmania Department of Mines, 14, 90-108.

E. MATTHEWS, W.L. 1970. Geology around dam site Nunamara. Plan 5336. In MATTHEWS, W.L. 1972. Geology around dam site Nunamara. Technical Report, Tasmania Department of Mines, 15, 67-71.

F. ANON. 1983. Tasmania 1:25 000 Series. Sheet E242 Edition 1. Patersonia. Mapping Division Land Department Hobart.

G. D.B. Seymour. Original mapping 2005.

H. S.M. Forry. Original mapping 2006.

I. S.M. Forry. Geological observations along public roads 2006.

J. S.M. Forry. Geological observations along private, limited access, unopened new roads, and unmade roads and vehicle tracks 2006.

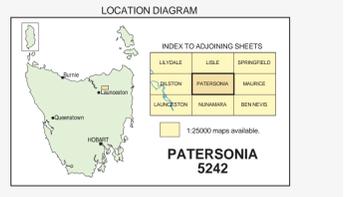
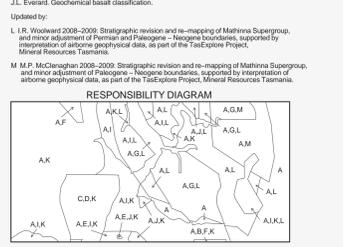
K. S.M. Forry. Aerial photo interpretation 2006.

Other sources:

LONGMAN, M.J. 1966. Geological Atlas 1:63 300 Series. Zone 7 Sheet 39 (83155). Launceston. Explanatory Paper Geological Survey Tasmania.

M.J. Longman and W.L. Matthews. Original field data plotted on aerial photographs.

L.J. Everett. Geochemical basalt classification.



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GDAS4 - MGA Zone 55. Contour Interval: 20 metres.

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