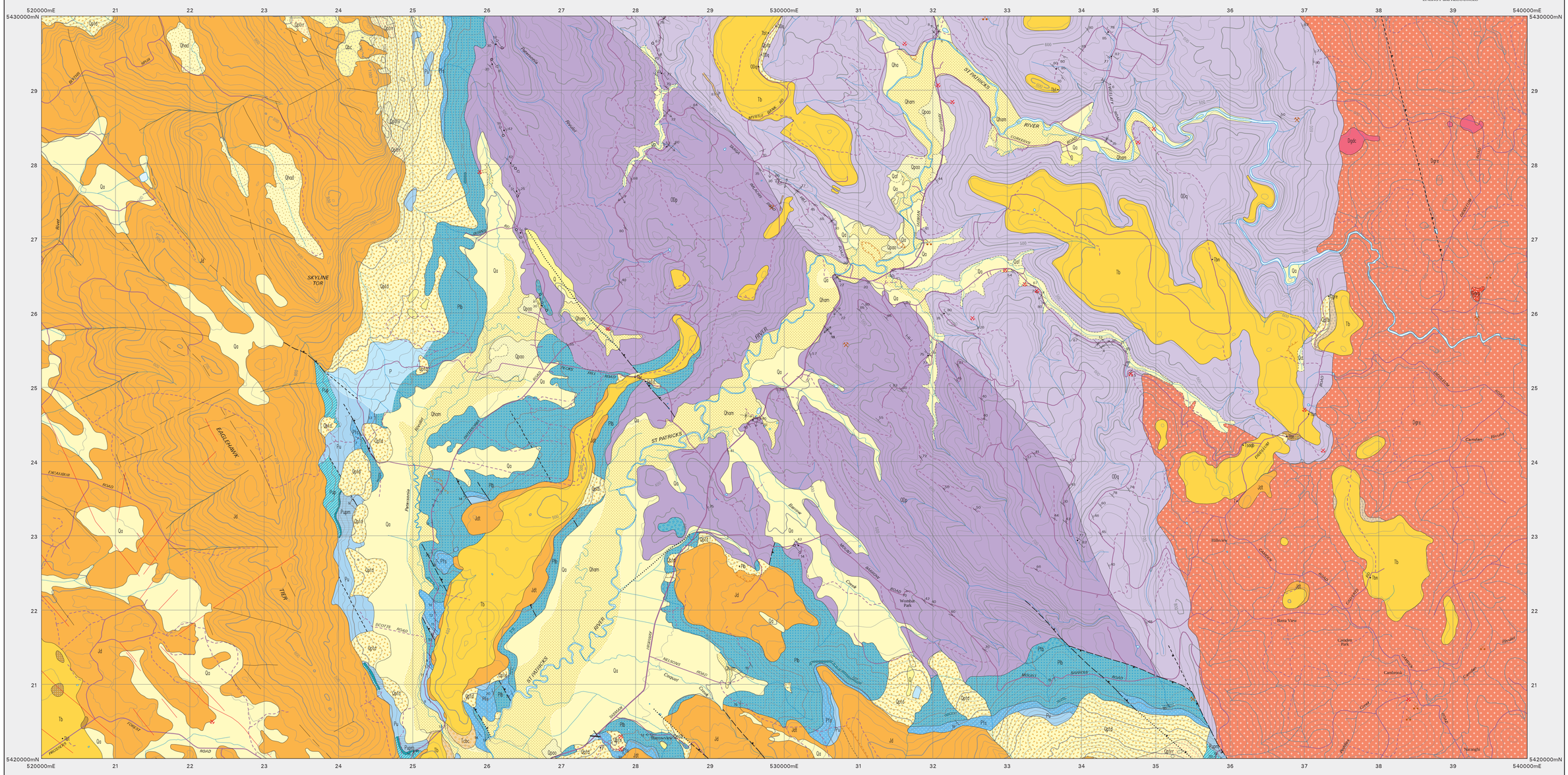
MINERAL RESOURCES TASMANIA
DIGITAL GEOLOGICAL ATLAS 1:25 000 SERIES
PATERSONIA, SHEET 5242

PATERSONIA

Scale: 1:25 000

0 500 1000 1500 2000 2500m

MINERAL RESOURCES TASMANIA
Tasmania
DEPARTMENT of INFRASTRUCTURE ENERGY and RESOURCES



CENOZOIC

QUATERNARY

- **Qhab** — *Marsh and swamp deposits (Qhab). Highland marsh with peaty clay overlying unsorted dolerite boulders (Qhab).*
- **Qha** — *Stream alluvium, swamp and marsh deposits (Qha).*
- **Qa / Qham / Qpao** — *Alluvial gravel sand and clay, generally peaty clay with small weathered dolerite blocks and granules and magnetic pisoliths 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). Alluvial and marsh deposits of modern flood plains, – gravel, sand, silt and clay (Qham), – alluvial gravel deposits (Qhg).*
  - **Qpao** — *Older alluvium of river terraces (Qpao).*
- **Qptrr** — *Scree deposit of angular unorientated dolerite boulders and rock masses (Qptrr).*
- **Qptnv** — *Cliff–fall scree deposits of Qptrr type without surficial fines and non–vegetated, includes some autochthonous block field deposits (Qptnv).*
- **Qbc** — *Dolerite block field deposits probably underlain by clay from weathered dolerite (Qbc).*
- **Qpt / Qptb / Qptm** — *Talus deposits (Qpt), basalt talus (Qptb), talus dominantly of large dolerite boulders and in places subordinate Parmeener rocks (Qptd), silty talus derived from lower Parmeener rocks (Qptsl).*
  - **Qptsl** — *Sandstone derived talus (Qpts).*
  - **Qptm** — *Talus of Mathinna Supergroup rocks (Qptm).*
- **Jdt** — *In situ Jurassic dolerite or deposits of transported dolerite masses of uncertain Cenozoic age (Jdt).*

TERTIARY

- **Tf** — *Ferricrete (Tf).*
- **Tflb** — *Laterite derived from Tertiary basalt (Tflb).*
- **Tb** — *Basalt (Tb), quartz tholeiite (Tbt), olivine tholeiite (Tbq), transitional olivine basalt (Tbr) and olivine nephelinite (Tbn) indicated.*
- **Tsp** — *Sub–basalt deposits of volcaniclastic? sandstone and clay (Tsp).*
- **Tsqsb** — *Sub–basalt, poorly–consolidated, slightly micaceous quartz–rich sandstone and conglomerate interbedded with siltstone and mudstone (Tsqsb).*
- **Tcbc** — *Sub–basalt, Jurassic dolerite boulders in clayey–gravel matrix with some quartz pebbles (Tcbc).*
- **Tsqb** — *Quartzite breccia with clasts to 300mm and siliceous matrix, of Tertiary or Paleozoic age (Tsqb).*

Erosional surface.

PALEOZOIC

PERMIAN

- **Pup** — *Undifferentiated glacio–marine mudstone siltstone and poorly–sorted sandstone, uncommon marine fossils (Pu).*
- **Pupfs** — *Predominantly unfossiliferous, poorly–sorted, fissile and non–fissile mudstone with few dropstones and rare thin sandstone beds, coarser–grained beds may be profusely bioturbated towards top of unit (Pup).*
- **Pupm** — *Pebbly feldspathic sandstone unit (possible correlate of Garcia Sandstone (Pups).*
- **Pfs** — *Predominantly grey and brown weathering mudstone with few small lonestones, subordinate micaceous siltstone and poorly–sorted pebbly sandstone intervals, fossiliferous beds at places (Pupm).*
  - *Pu = Pup + Pups + Pupm*
- **Pfb** — *Dominantly well–sorted quartz sandstone, usually cross–bedded and commonly with interbedded and interlaminated carbonaceous shale minor thin basal conglomerate lenses and rare coal (Liffey Group) (Pfs).*
- **Pfbc** — *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 lonestones and subordinate sandstone and conglomerate beds, some fossils (Pfb).*

LATE CARBONIFEROUS

- **Pfbc** — *Fossiliferous pebbly sandstone (Pfbc).*
- **Plmi** — *Clastic limestone indicated in places (Plmi).*
- **Pltb** — *Predominantly diamictite with striated and faceted clasts of pebble to cobble size, sorted conglomerate in some areas (Pltb).*

Angular unconformity.

ORDOVICIAN?–SILURIAN –EARLY DEVONIAN

- **ODq** — *Quartzwacke turbidite sequence of interbedded sandstone siltstone and mudstone with sandstone dominant (Odq).*
- **ODp** — *Quartzwacke turbidite sequence of interbedded sandstone siltstone and mudstone with mudstone dominant (ODp).*

LOYER PARMEENER SUPERGROUP

MATHINNA SUPERGROUP

REKUNIAN SERIES: Lymingtonian Stage; Bernacchian Stage; Tamarian Stage

IGNEOUS ROCKS

JURASSIC

- **Jd** — *Dolerite (Jd), in situ Jurassic dolerite or deposits of transported dolerite masses of uncertain Cenozoic age (Jdt).*

DEVONIAN

- **Dgdc** — *Coarse–grained diorite (Dgdc).*
- **Dgrp** — *Granodiorite porphyry (Dgrp).*
- **Dgre** — *Equigranular, medium– to coarse–grained biotite–hornblende granodiorite (Dgre).*

Geological boundary – position accurate or approximate.
Geological boundary – position inferred.
Unconformable boundary – position accurate or approximate.
(white line) *Limit of mapping of sub–unit within undifferentiated rock unit ('Colour boundary')*
Slope break.
Scarp.
Lineament visible on aerial photographs.
Lineament visible in airborne magnetic data.
Fault – position accurate or approximate.
Fault – position inferred.
Fault – concealed.
Fault – position accurate or approximate, downthrown side indicated.
Fault – inferred, downthrown side indicated.
Fault – normal – concealed.

Strike and dip of bedding, right way up.
Strike and dip of bedding, facing unknown.
Strike and dip of bedding, overturned.
Strike and dip of cleavage of unspecified type and relative age.
Strike of vertical cleavage of unspecified type and relative age, parallel to bedding, facing unknown.
Strike of outcrop–scale fault of unspecified type and relative age.
Trend and plunge of lineation of unspecified type.
Trend and plunge of bedding/primary cleavage intersection lineation (L1).
Horizontal bedding/primary cleavage intersection lineation (L1).
Trend and plunge of minor fold hinge line, unspecified relative age.
Trend and plunge of hinge line of minor antiform, unspecified relative age.
Trend of horizontal hinge line of minor antiform, unspecified relative age.
Trend and plunge of hinge line of minor synform, unspecified relative age.
Trend and plunge of minor fold hinge line, unspecified relative age, vergence dextral.
Glacial striae, showing sense of movement.
Notable small outcrop with rock unit indicated.
Field station for adjacent readings on the map.
Mineral deposit location – hardrock / *Mineral deposit location – alluvial* — *Data derived from Mineral Resources Tasmania DEPOSITS data base. Data point position has not been verified in every case.*
Construction materials location – Data derived from Mineral Resources Tasmania DEPOSITS data base. Data point position has not been verified in every case.

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

A LONGMAN, M.J., MATTHEWS, W.I. and ROWE, S.M. 1964. Geological Atlas 1:63 360 series, sheet 39 (B3155) Launceston. Department of Mines, Tasmania. (primarily original 1:36 680 compilation sheets).

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

C MATTHEWS, W.L. 1969 Detailed geology proposed damsite Patersonia. Current plan 3229 In MATTHEWS, W.L. 1971. Patersonia dam site. Technical Report Department of Mines, Tasmania 14: 90-108.

D MATTHEWS, W.L. 1970. Geology around damsite Nunamara. Plan 3336 In MATTHEWS, W.L. 1972. Geology around dam site Nunamara. Technical Report Department of Mines, Tasmania. 15: 69-71.

E ANON. 1983. Tasmania 1:25 000 Series, Sheet 5242 Edition 1 Patersonia. Mapping Division Lands Department Hobart.

F D.B. SEYMOUR. Original mapping 2005.

G S.M. FORSYTH. Original mapping 2006.

H S.M. FORSYTH. Geological observations along public roads 2006.

I S.M. FORSYTH. Geological observations along private, limited access, undepicted new roads, and undrireable roads and vehicular tracks 2006.

J S.M. FORSYTH. Aerial photo interpretation 2006.

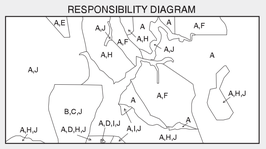
Other sources:

LONGMAN, M.J. 1966. Geological Atlas 1:63 360 series, Zone 7 sheet 39 (B3155). Launceston. Explanatory Report Geological Survey Tasmania.

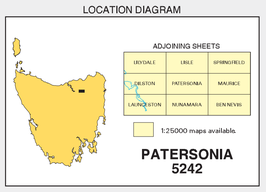
M.J. Longman and W.L. Matthews. Original field data plotted on aerial photographs.

J.L. Everard. Geochemical basalt classification.

RESPONSIBILITY DIAGRAM



LOCATION DIAGRAM



REFERENCE THIS MAP AS:

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AGD66 - AMG Zone 55. Contour Interval: 20 metres.

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