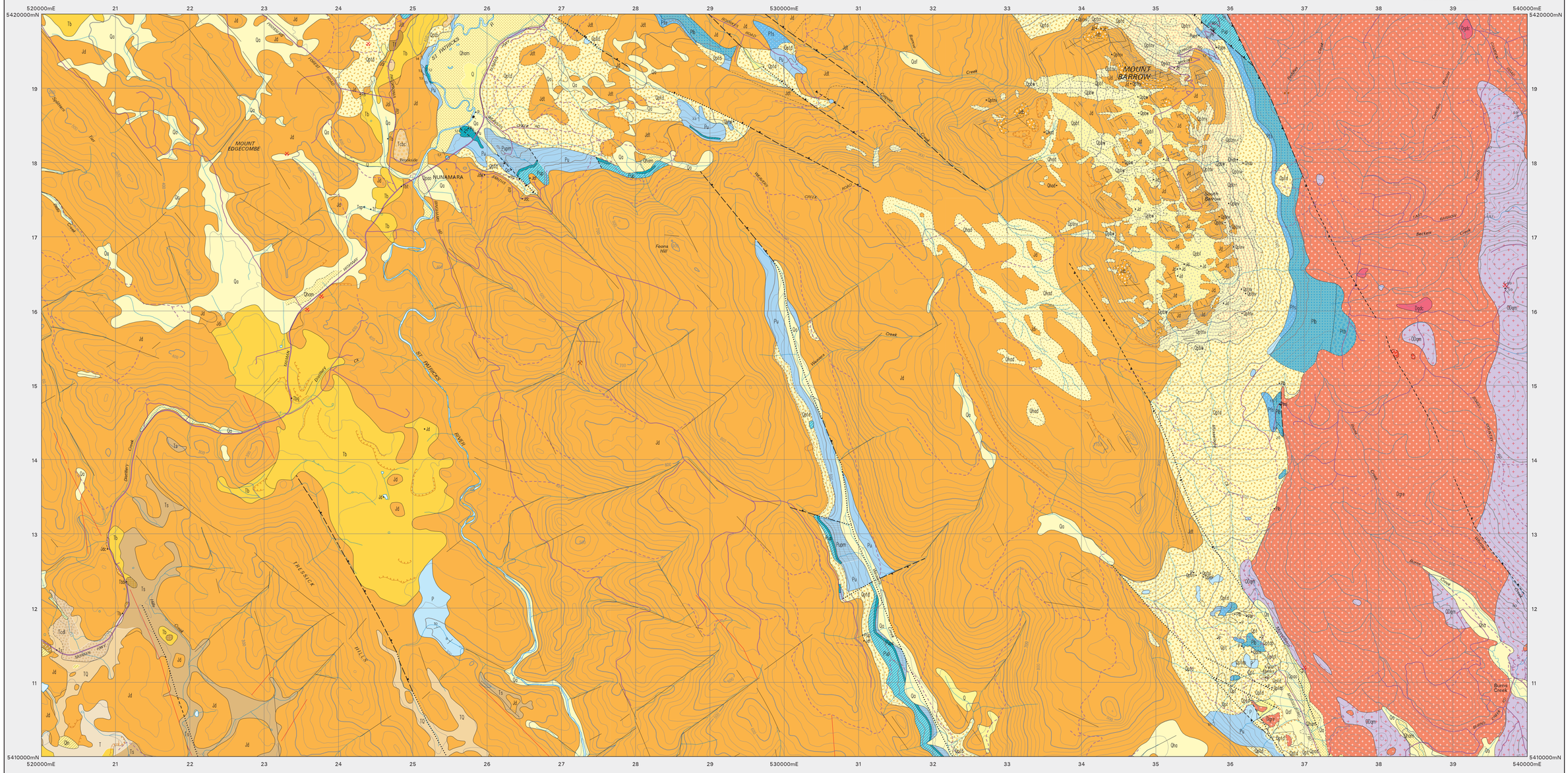
MINERAL RESOURCES TASMANIA
DIGITAL GEOLOGICAL ATLAS 1:25 000 SERIES
NUNAMARA, SHEET 5241

NUNAMARA

Scale: 1:25 000

0 500 1000 1500 2000 2500m

MINERAL RESOURCES TASMANIA
Tasmania
DEPARTMENT of INFRASTRUCTURE ENERGY and RESOURCES



CENOZOIC

QUATERNARY – HOLOCENE

- **Qhab** – Marsh and swamp deposits (Qhab), highland marsh with peaty clay overlying unsorted dolerite boulders (Qhad).
- **Qin** – Lag deposits of ferruginous pisoliths and ferricrete fragments (Qin).
- **Qa / Qham** – 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). Holocene, undifferentiated alluvium, swamp and marsh deposits (Qha), alluvial and marsh deposits of modern flood plains – gravel, sand, silt and clay (Qham).

QUATERNARY – PLEISTOCENE

- **Qpad** – Alluvial terrace deposits of cobbles and boulders of dolerite (Qpad).
- **Qpao** – Older alluvium of river terraces (Qpao).
- **Qpbt** – Periglacial, predominantly block stream and block glacis deposits of moderately sorted dolerite boulders and with flow fabric and interstitial fines, vegetated (Qpbt).
- **Qptw** – Periglacial, predominantly block stream and block glacis deposits of moderately sorted dolerite boulders and with flow fabric, lacks shallow interstitial fines, non–vegetated (Qptw).
- **Qptrr** – Scree deposits of angular unorientated dolerite boulders and rock masses to 30m size (Qptrr).
- **Qptrv** – Cliff–fall scree deposits of Qptrr type without surficial fines and non–vegetated, includes some autochthonous block field deposits (Qptrv).
- **Qpt** – Talus and remobilised talus deposits (Qpt), basalt talus (Qptb), silty talus breccia derived from Liffey Group (Qpts), talus dominantly of Lower Parmeener rocks and dolerite (Qptdp), and talus dominantly of large dolerite boulders and in places subordinate Parmeener rocks (Qptd).

TERTIARY

- **Jdt** – In situ Jurassic dolerite or deposits of transported dolerite masses of uncertain Cenozoic age (Jdt).
- **Tf** – Ferricrete (Tf).
- **Ttlb** – Laterite derived from Tertiary basalt (Ttlb).
- **Ttld** – Laterite derived from Jurassic dolerite (Ttld).
- **Tb** – Basalt (Tb), quartz tholeiite (Tbq), olivine tholeiite (Tbt), basanite (Tbb), and limburgite (Tbl).
- **Tsp** – Sub basalt deposits (Tsp).
- **Tcbc** – Dolerite boulders in clayey–gravel matrix with some quartz pebbles (Tcbc).
- **Tcdi** – Moderately–consolidated dolerite conglomerate dominantly of cobble grade with subordinate pebble or boulder grade clasts, some sandstone and rare siltstone (Tcdi).
- **Ts** – Sandstone and clay, may include residual clay and Quaternary deposits (Ts).

Erosional surface.

PALEOZOIC

PERMIAN

- **Pup** – Undifferentiated glacio–marine mudstone, siltstone and poorly–sorted sandstone, uncommon marine fossils (Pu). Predominantly unfossiliferous, poorly–sorted fissile and non–fissile mudstone with few dropstones and rare thin sandstone beds, coarser–grained beds profusely bioturbated above Pupp unit (Pup).
- **Pupp** – Pebbly sandstone (possible correlate of Palmer Sandstone) (Pupp).
- **Pups** – Pebbly feldspathic sandstone unit (possible correlate of Garcia Sandstone) (Pups).
- **Pupm** – Predominantly grey and brown weathering mudstone with few small lonestones, subordinate micaceous siltstone and poorly sorted pebbly sandstone intervals, fossiliferous beds at places (Pupm).
- **Pfs** – Dominantly well?–sorted quartz sandstone, usually cross–bedded and commonly with interbedded and interlaminated carbonaceous shale, minor thin basal conglomerate lenses and rare coal (correlate of Liffey Group and Aberfoyle Formation) (Pfs).
- **Plb** – 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 dropstones and subordinate sandstone and conglomerate beds, some fossils (Plb).
- **Plml** – Clastic limestone indicated in places (Plml).
- **Plb** – Predominantly diamictite with striated and faceted clasts of pebble to cobble size, sorted conglomerate in some areas (Plb).

Lower Parmeener Supergroup — Lymingtonian Stage; ? ? Bernacchian Stage; Tamarian Stage — Rekunian Series

Angular unconformity

LATE CAMBRIAN–ORDOVICIAN

- **QOqm** – Quartzwacke turbidite sequence of interbedded sandstone siltstone and mudstone with sandstone dominant, contact metamorphosed (QOqm).

Mathinna Supergroup

IGNEOUS ROCKS

CENOZOIC – TERTIARY

- **Tb** – Basalt (Tb), quartz tholeiite (Tbq), olivine tholeiite (Tbt), basanite (Tbb) and limburgite (Tbl).

MESOZOIC – JURASSIC

- **Jdb** – Dolerite fragmented by periglacial process (Jdb).
- **Jdw** – Predominantly deeply–weathered dolerite (Jdw).
- **Jd** – Dolerite (Jd), dolerite inferred beneath soil or Cenozoic deposits (Jdi), dolerite of grainsize 0–0.7mm (Jdvf); 0.7–1.5mm (Jdf); 1.5–3mm (Jdm); >3mm (Jdc) indicated.

PALEOZOIC – DEVONIAN

- **Dgdc** – Coarse–grained diorite (Dgdc).
- **Dgrp** – Granodiorite porphyry (Dgrp).
- **Dore** – 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.
Fault – position accurate or approximate.
Fault – inferred.
Fault – concealed.
Normal fault (downthrown side indicated) – position accurate or approximate.
Normal fault (downthrown side indicated) – inferred.
Normal fault (downthrown side indicated) – concealed.
Slope break.
Scarp.
Lineament visible on aerial photographs.
Lineament visible in airborne magnetic data.
(white line) Limit of mapping of sub–unit within undifferentiated rock unit ('Colour boundary')

Strike and dip of bedding – right way up; facing unknown.
Strike and dip of cleavage of unspecified type and relative age.
Strike of dominant joint set – vertical.
Notable small outcrop with rock unit indicated.
Field station for adjacent readings on 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, 2007 from the following sources (see responsibility diagram):

A LONGMAN, M.J., MATTHEWS, W.L. & ROWE, S.M. 1984. Geological Atlas 1:63 360 series, sheet 39 (83155). Launceston. (Primarily original 1:36 680 compilation sheets).

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

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

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

E MATTHEWS, W.L. 1969. Geology proposed damsite Patersonia. Plan 3227. In MATTHEWS, W.L. 1971. Patersonia damsite. Technical Report Department of Mines, Tasmania 14: 90–108.

F S.M. Forsyth 2006. Geological observations along private, limited access undepicted new roads and undrivable roads and vehicular tracks.

G Anon, 1983. Tasmania 1:25 000 Series, sheet 5242 Edition 1 Nunamara. Mapping Division Lands Department Hobart.

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

I S.M. Forsyth. Aerial photo interpretation 2006.

J S.M. Forsyth. Original mapping at 1:25 000 scale 2006.

K M.P. McClenaghan. Revision of granite boundaries.

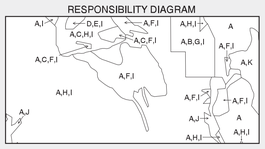
Other sources:

LONGMAN, M.J. 1966. Geological Atlas 1:63 360 series, Zone 7 sheet 39 (83155). Launceston. Explanatory Report Geological Survey Tasmania.

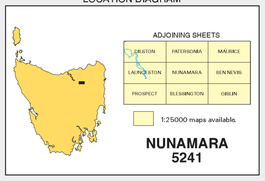
M.J. Longman and W.L. Matthews. Original field data plotted on aerial photographs.

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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