

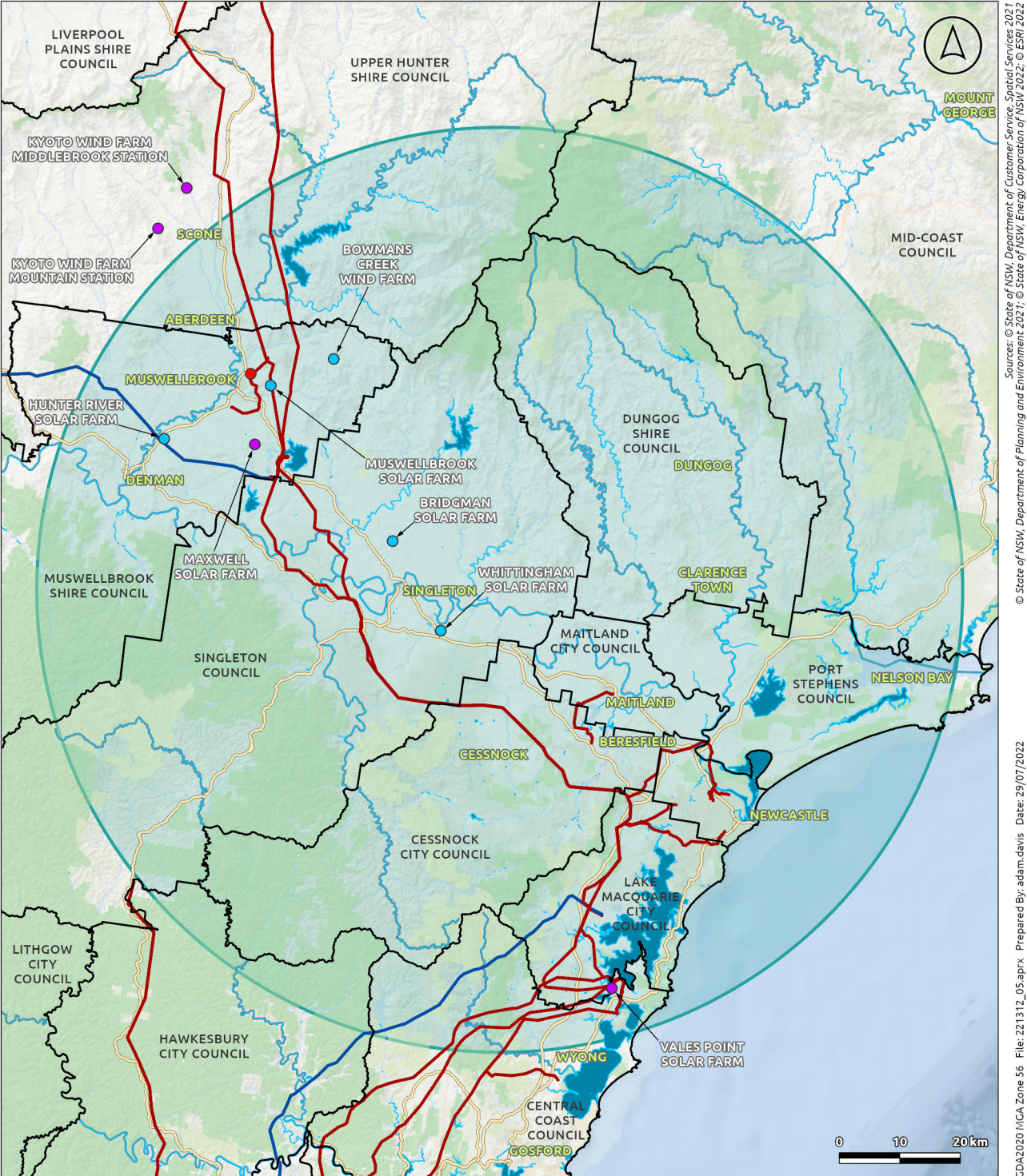
- Legend**
- Development Site
 - LGA Boundary
 - Major Road
 - Railway
 - Water Body
 - Major Watercourse
 - State Forest
 - NPWS Reserve
 - Proposed Materials Transport Route

Proposed Queensland-Hunter Gas Pipeline
- - - Indicative Pipeline Route



FIRM POWER
Muswellbrook Battery Energy Storage System

Fig: Regional Context



Legend

- Site Locality
- LGA Boundary
- Major Road
- Water Body
- Major Watercourse
- Indicative Hunter-Central Coast Renewable Energy Zone
- Electricity Transmission Line**
 - 330kV Network
 - 500kV Network

Renewable Energy Projects

- In Planning
- Approved



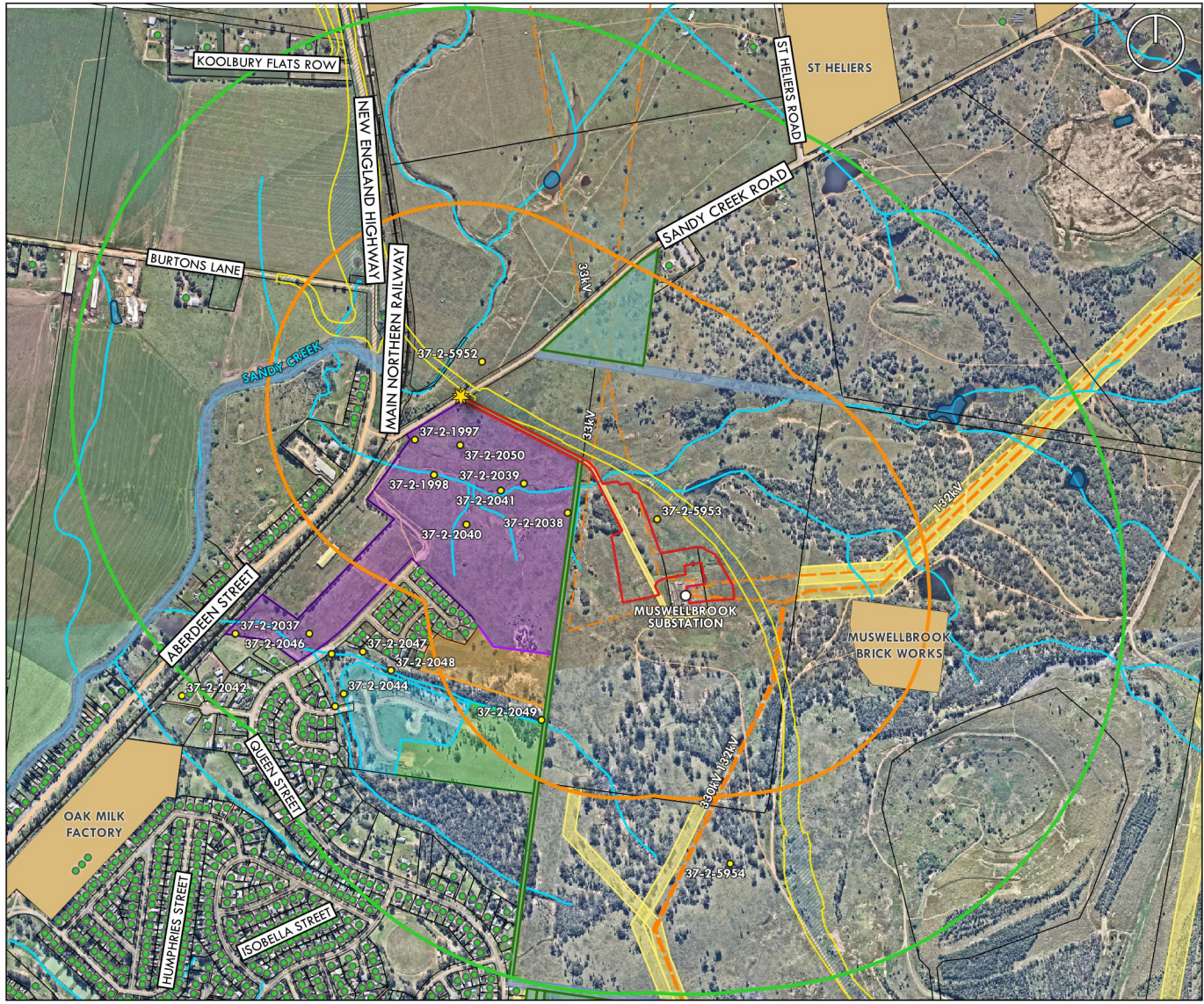
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Muswellbrook Battery Energy Storage System

Fig: Renewable Energy Zone

LEGEND

- DEVELOPMENT SITE
- DEVELOPMENT SITE 500m BUFFER
- DEVELOPMENT SITE 1km BUFFER
- CROWN LAND
- CROWN RESERVES
- ✦ PROPERTY ACCESS
- NON ASSOCIATED RECEIVERS
- RECORDED ABORIGINAL SITES
- MUSWELLBROOK SUBSTATION
- RAILWAY
- ROADS
- WATERCOURSE
- DAMS
- INDICATIVE MUSWELLBROOK BYPASS FOOTPRINT
- EPI HERITAGE**
- ITEM - GENERAL
- ELECTRICITY TRANSMISSION LINES**
- 33kV
- 132kV
- 330kV
- NORTHVIEW ESTATE**
- STAGE 4
- STAGE 5
- STAGE 6
- STAGE 7















0 250 500 m







FIRM POWER

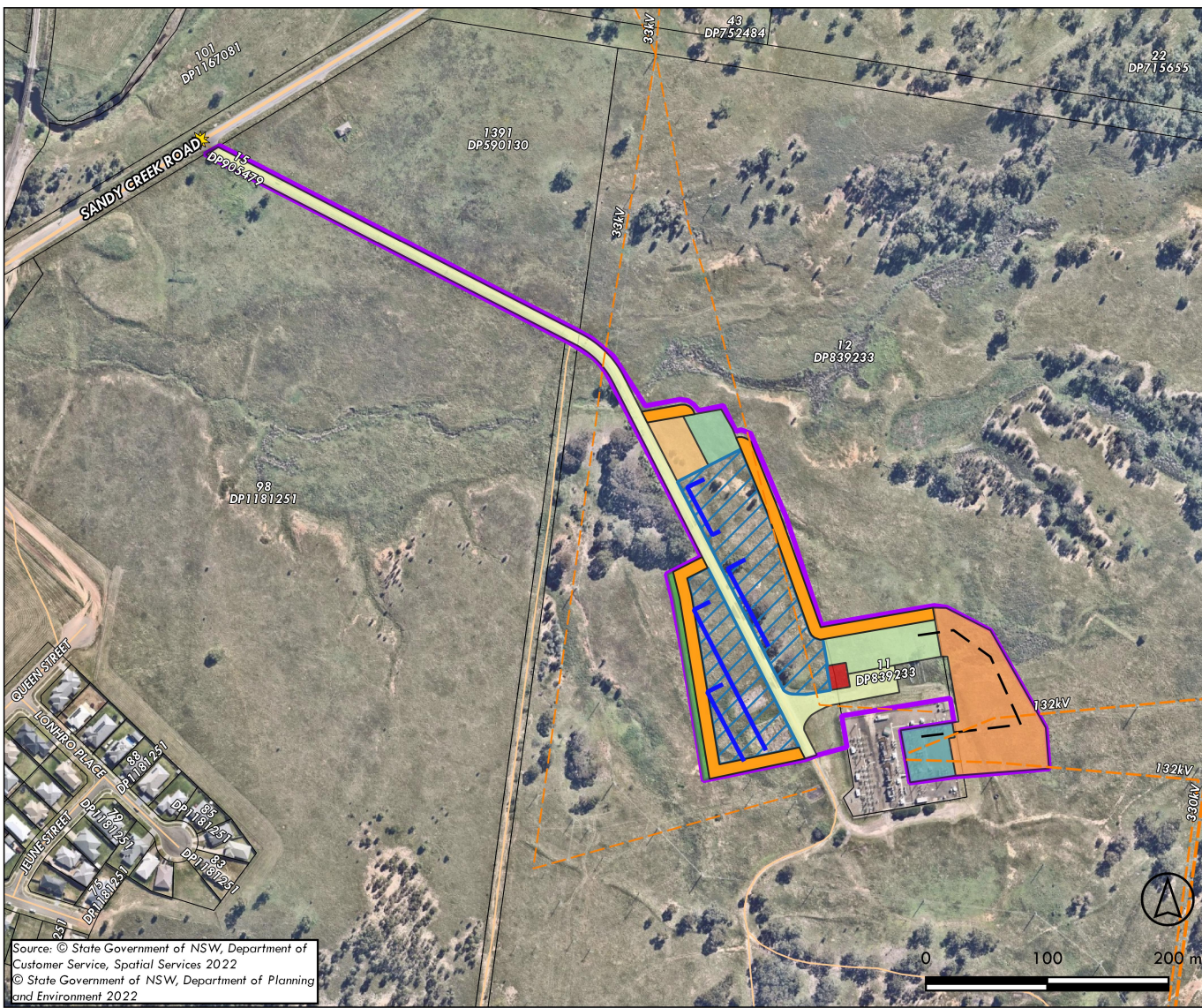
Muswellbrook Battery Energy Storage System

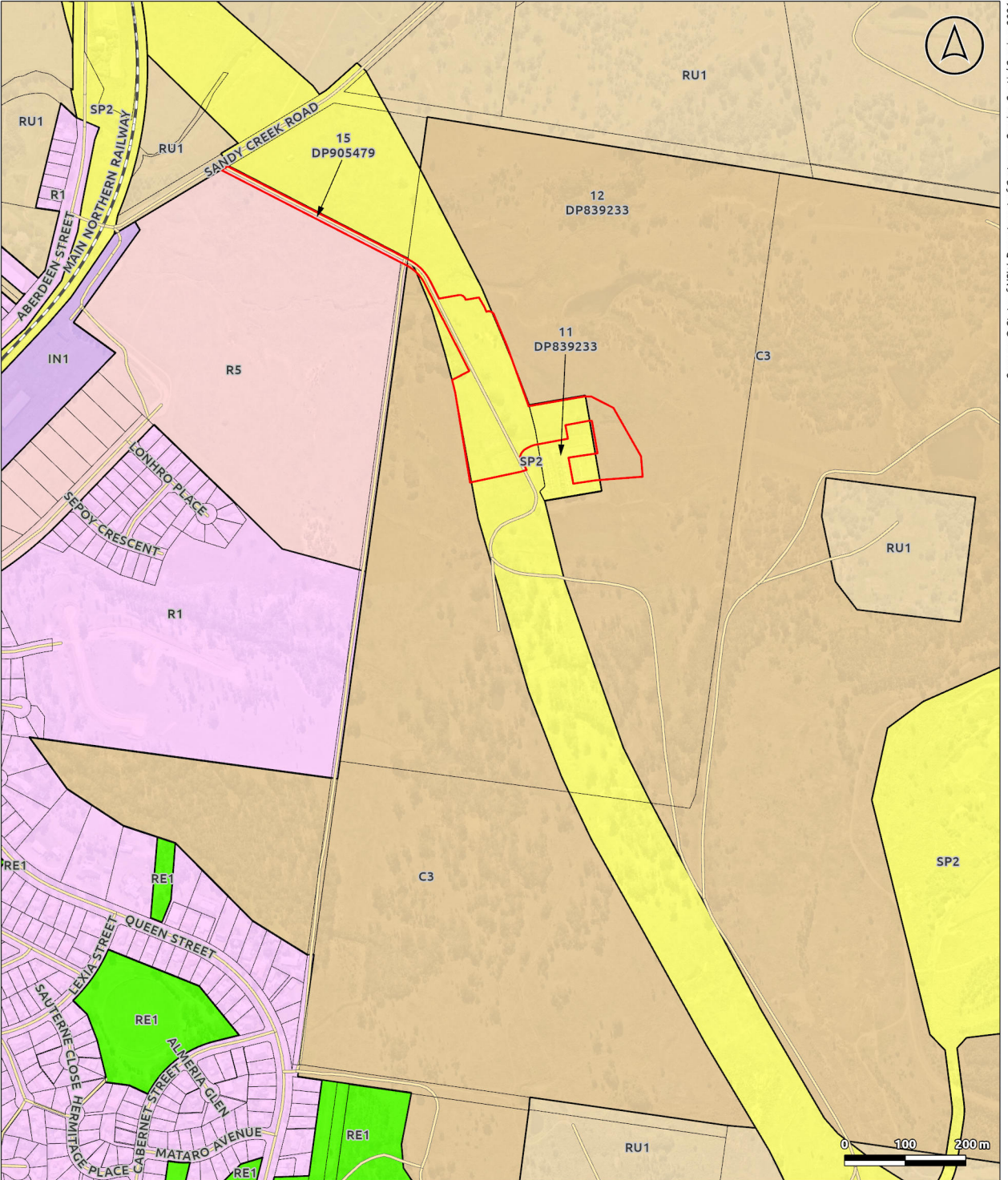
LEGEND

-  Property Access
-  Development area
-  BESS Area
-  Ausgrid Future Works (not part of BESS project)
-  Grid Connection Investigation Area
-  O&M Compound
-  Screening Vegetation
-  Shared Access Route
-  Substation Area
-  Temp Construction Compound
-  Works Area in Existing Substation
-  Accessways & APZ
-  Noise Walls
-  Indicative Connection Route

Existing Transmission Lines

-  500kV
-  330kV
-  132kV
-  33kV





Legend

- Development Site
- Cadastre
- Road
- Railway

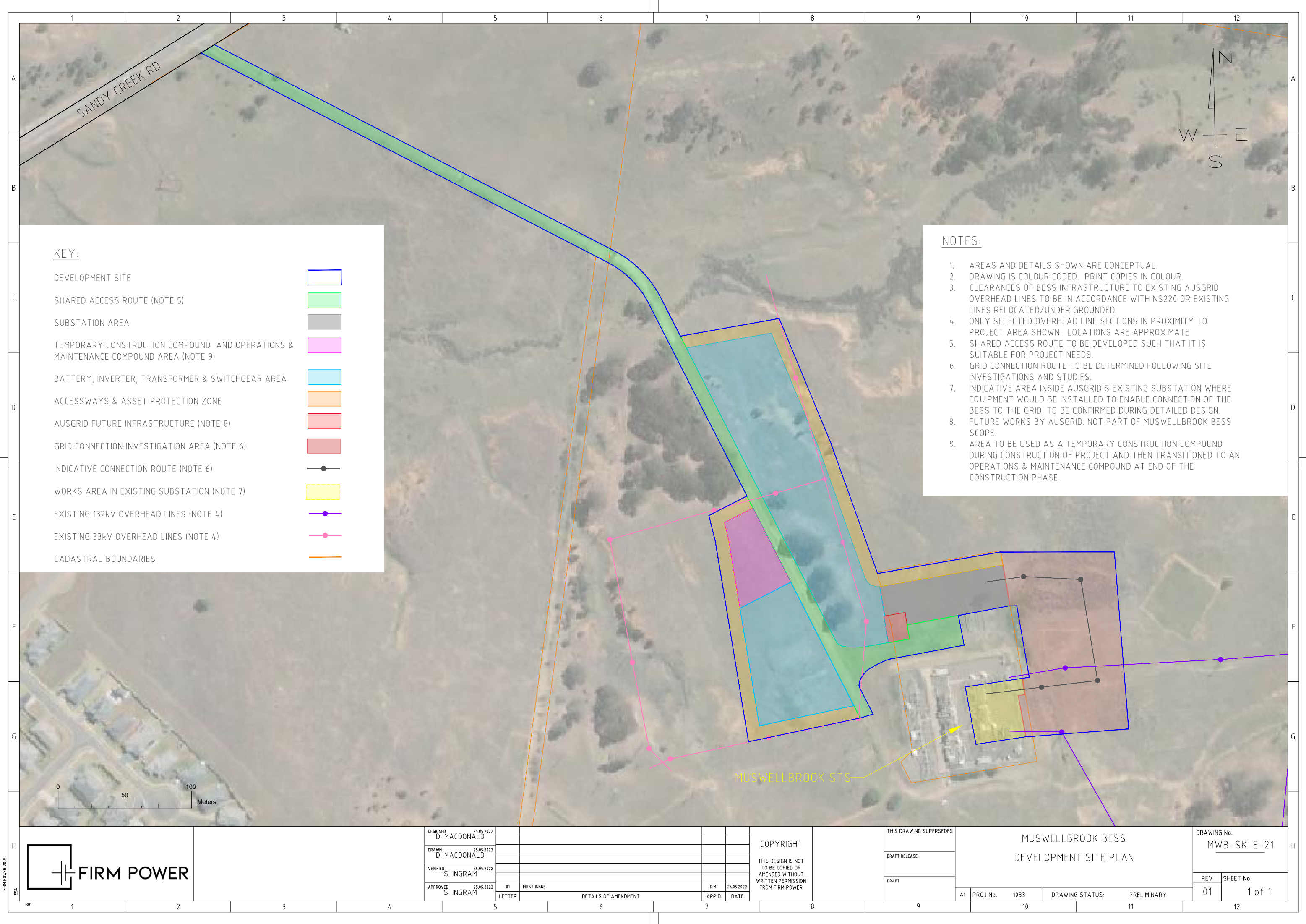
EPI Land Zoning (LZN)

- C3
- IN1
- R1
- R5
- RE1
- RU1
- SP2



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Muswellbrook Battery
Energy Storage System

Fig: Land Zoning (LZN)



KEY:

- DEVELOPMENT SITE
- SHARED ACCESS ROUTE (NOTE 5)
- SUBSTATION AREA
- TEMPORARY CONSTRUCTION COMPOUND AND OPERATIONS & MAINTENANCE COMPOUND AREA (NOTE 9)
- BATTERY, INVERTER, TRANSFORMER & SWITCHGEAR AREA
- ACCESSWAYS & ASSET PROTECTION ZONE
- AUSGRID FUTURE INFRASTRUCTURE (NOTE 8)
- GRID CONNECTION INVESTIGATION AREA (NOTE 6)
- INDICATIVE CONNECTION ROUTE (NOTE 6)
- WORKS AREA IN EXISTING SUBSTATION (NOTE 7)
- EXISTING 132kV OVERHEAD LINES (NOTE 4)
- EXISTING 33kV OVERHEAD LINES (NOTE 4)
- CADASTRAL BOUNDARIES

NOTES:

- AREAS AND DETAILS SHOWN ARE CONCEPTUAL.
- DRAWING IS COLOUR CODED. PRINT COPIES IN COLOUR.
- CLEARANCES OF BESS INFRASTRUCTURE TO EXISTING AUSGRID OVERHEAD LINES TO BE IN ACCORDANCE WITH NS220 OR EXISTING LINES RELOCATED/UNDER GROUNDED.
- ONLY SELECTED OVERHEAD LINE SECTIONS IN PROXIMITY TO PROJECT AREA SHOWN. LOCATIONS ARE APPROXIMATE.
- SHARED ACCESS ROUTE TO BE DEVELOPED SUCH THAT IT IS SUITABLE FOR PROJECT NEEDS.
- GRID CONNECTION ROUTE TO BE DETERMINED FOLLOWING SITE INVESTIGATIONS AND STUDIES.
- INDICATIVE AREA INSIDE AUSGRID'S EXISTING SUBSTATION WHERE EQUIPMENT WOULD BE INSTALLED TO ENABLE CONNECTION OF THE BESS TO THE GRID. TO BE CONFIRMED DURING DETAILED DESIGN.
- FUTURE WORKS BY AUSGRID. NOT PART OF MUSWELLBROOK BESS SCOPE.
- AREA TO BE USED AS A TEMPORARY CONSTRUCTION COMPOUND DURING CONSTRUCTION OF PROJECT AND THEN TRANSITIONED TO AN OPERATIONS & MAINTENANCE COMPOUND AT END OF THE CONSTRUCTION PHASE.

MUSWELLBROOK STS



DESIGNED	25.05.2022				
D. MACDONALD					
DRAWN	25.05.2022				
D. MACDONALD					
VERIFIED	25.05.2022				
S. INGRAM					
APPROVED	25.05.2022	01	FIRST ISSUE	D.M.	25.05.2022
S. INGRAM		LETTER	DETAILS OF AMENDMENT	APP'D	DATE

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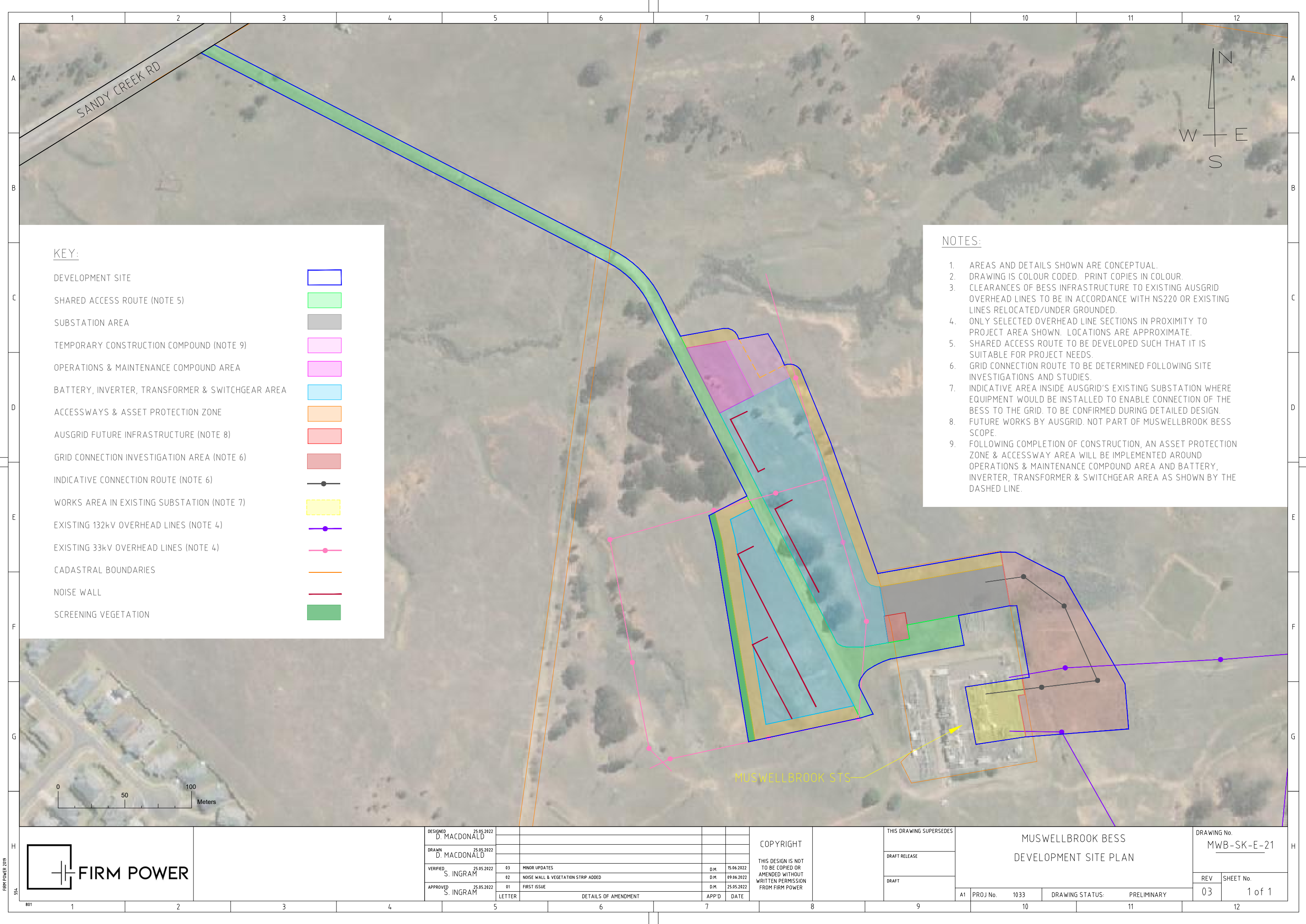
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DRAFT

MUSWELLBROOK BESS
DEVELOPMENT SITE PLAN

DRAWING No.
MWB-SK-E-21

REV	SHEET No.
01	1 of 1

A1	PROJ No.	1033	DRAWING STATUS:	PRELIMINARY
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KEY:

- DEVELOPMENT SITE
- SHARED ACCESS ROUTE (NOTE 5)
- SUBSTATION AREA
- TEMPORARY CONSTRUCTION COMPOUND (NOTE 9)
- OPERATIONS & MAINTENANCE COMPOUND AREA
- BATTERY, INVERTER, TRANSFORMER & SWITCHGEAR AREA
- ACCESSWAYS & ASSET PROTECTION ZONE
- AUSGRID FUTURE INFRASTRUCTURE (NOTE 8)
- GRID CONNECTION INVESTIGATION AREA (NOTE 6)
- INDICATIVE CONNECTION ROUTE (NOTE 6)
- WORKS AREA IN EXISTING SUBSTATION (NOTE 7)
- EXISTING 132kV OVERHEAD LINES (NOTE 4)
- EXISTING 33kV OVERHEAD LINES (NOTE 4)
- CADASTRAL BOUNDARIES
- NOISE WALL
- SCREENING VEGETATION

NOTES:

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- ONLY SELECTED OVERHEAD LINE SECTIONS IN PROXIMITY TO PROJECT AREA SHOWN. LOCATIONS ARE APPROXIMATE.
- SHARED ACCESS ROUTE TO BE DEVELOPED SUCH THAT IT IS SUITABLE FOR PROJECT NEEDS.
- GRID CONNECTION ROUTE TO BE DETERMINED FOLLOWING SITE INVESTIGATIONS AND STUDIES.
- INDICATIVE AREA INSIDE AUSGRID'S EXISTING SUBSTATION WHERE EQUIPMENT WOULD BE INSTALLED TO ENABLE CONNECTION OF THE BESS TO THE GRID. TO BE CONFIRMED DURING DETAILED DESIGN.
- FUTURE WORKS BY AUSGRID. NOT PART OF MUSWELLBROOK BESS SCOPE.
- FOLLOWING COMPLETION OF CONSTRUCTION, AN ASSET PROTECTION ZONE & ACCESSWAY AREA WILL BE IMPLEMENTED AROUND OPERATIONS & MAINTENANCE COMPOUND AREA AND BATTERY, INVERTER, TRANSFORMER & SWITCHGEAR AREA AS SHOWN BY THE DASHED LINE.



DESIGNED	D. MACDONALD	25.05.2022					
DRAWN	D. MACDONALD	25.05.2022					
VERIFIED	S. INGRAM	25.05.2022	03	MINOR UPDATES	D.M.	15.06.2022	
			02	NOISE WALL & VEGETATION STRIP ADDED	D.M.	09.06.2022	
APPROVED	S. INGRAM	25.05.2022	01	FIRST ISSUE	D.M.	25.05.2022	
			LETTER	DETAILS OF AMENDMENT	APP'D	DATE	

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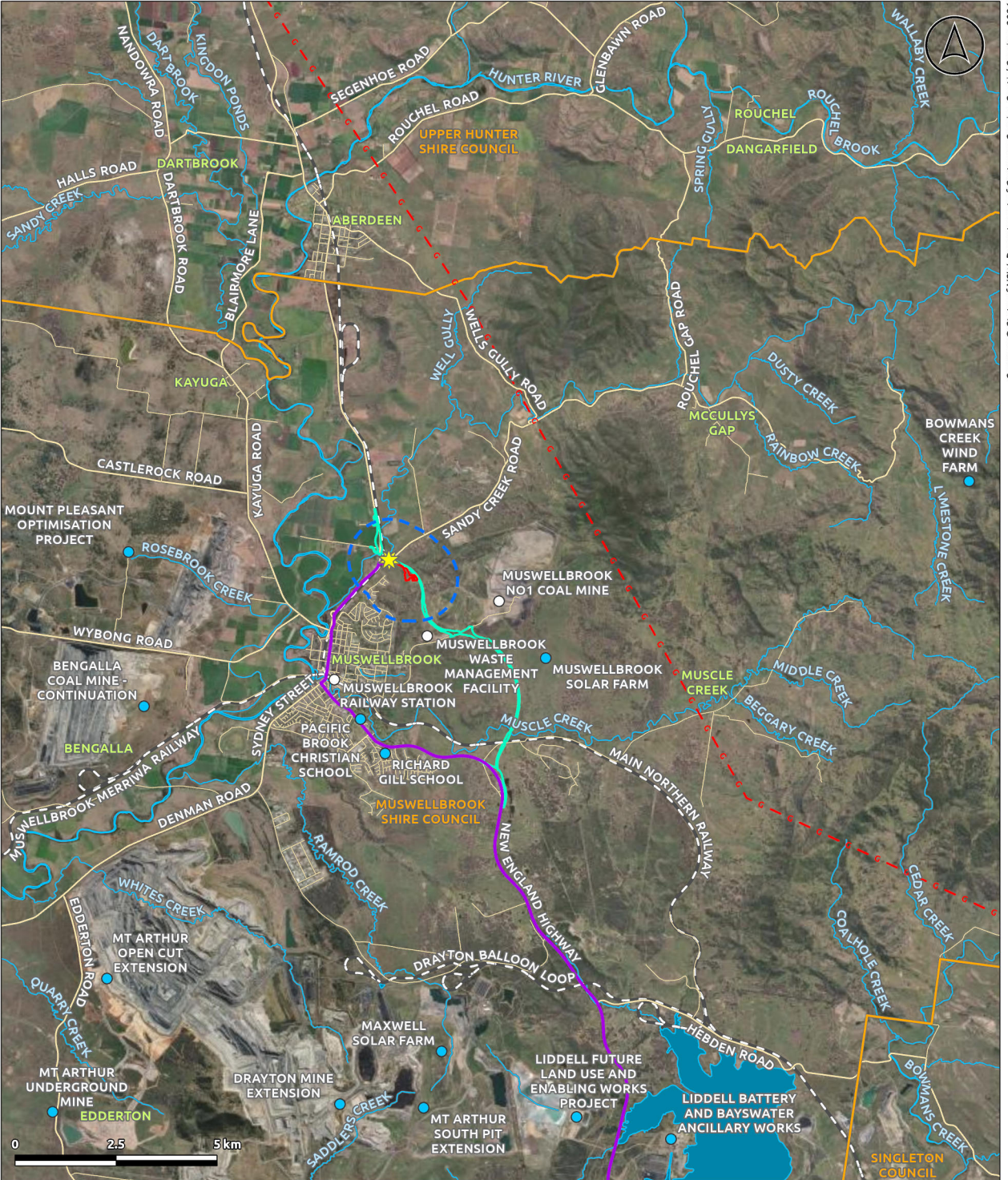
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DRAFT

MUSWELLBROOK BESS
DEVELOPMENT SITE PLAN

DRAWING No.
MWB-SK-E-21

REV	SHEET No.
03	1 of 1

A1 PROJ No. 1033 DRAWING STATUS: PRELIMINARY



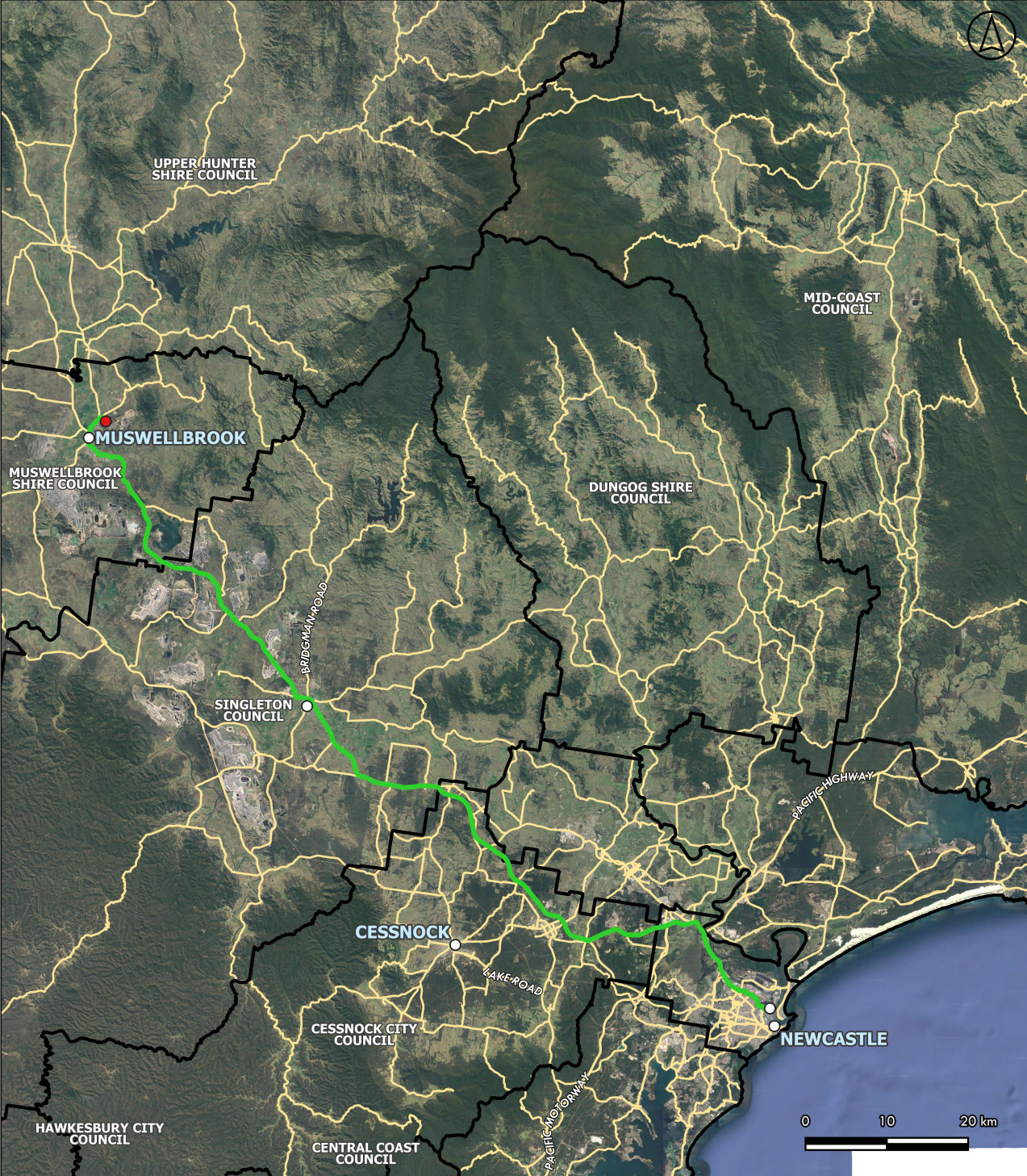
Legend

- Locality
- Development Site
- ★ Site Access
- LGA Boundary
- Major Road
- Railway
- Water Body
- Major Watercourse

- Indicative Muswellbrook Bypass
- Proposed Materials Transport Route
- State Significant Development Within/
Surrounding Muswellbrook LGA
- Proposed Queensland-Hunter Gas Pipeline
- Indicative Pipeline Route


Premise
FIRM POWER
Muswellbrook Battery
Energy Storage System

Fig: Local Context



EPSG:28356 Prepared by: ALD Date: 22/08/2022 File: 221312_01.qgz

LEGEND

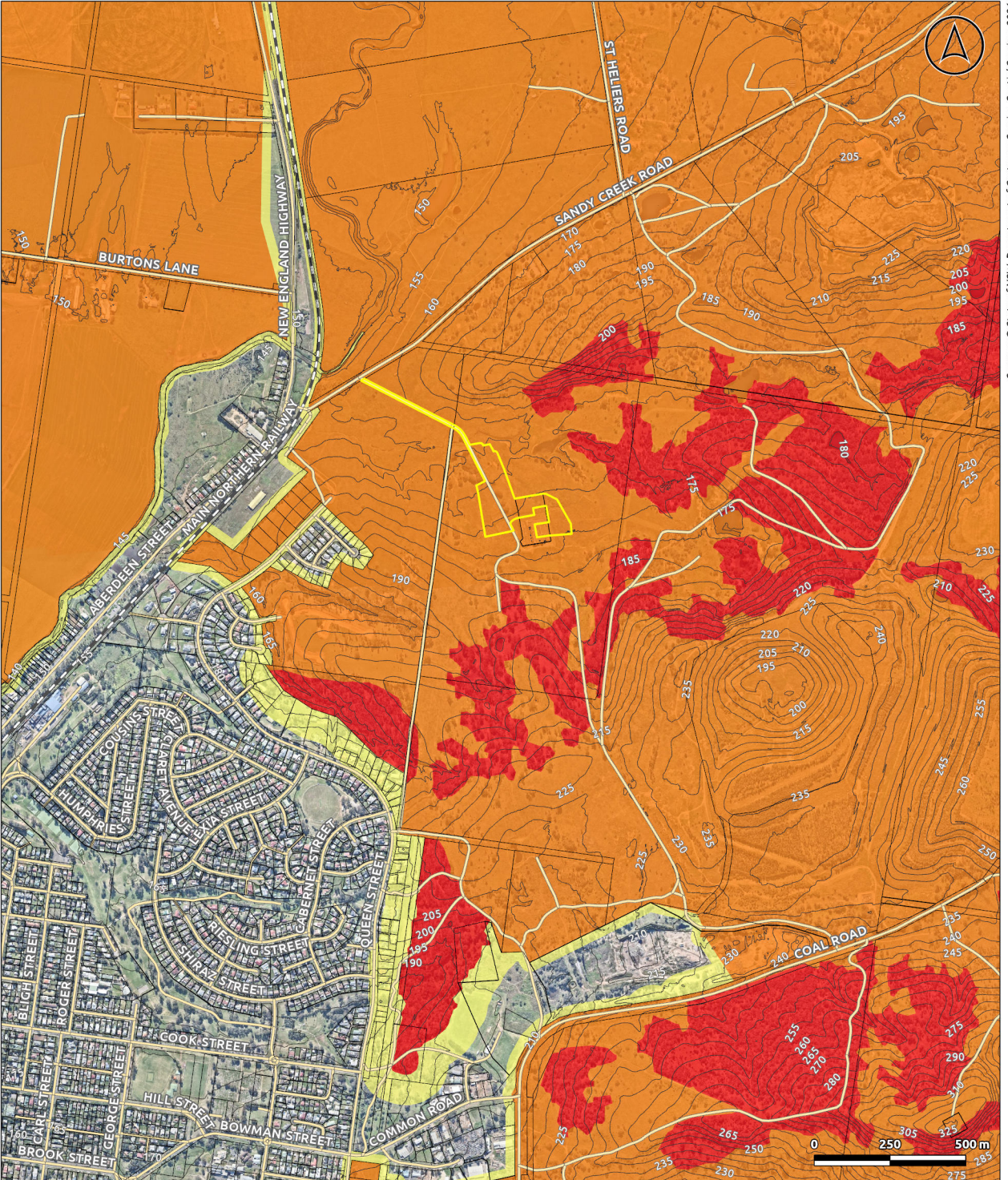
- LGA Boundary
- Site Locality
- Locality
- Road
- Materials Transport Route from Port of Newcastle



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Muswellbrook Battery Energy Storage System

Source: © State Government of NSW, Department of Customer Service, Spatial Services 2021



- Legend**
- Development Site
 - Cadastre
 - Road
 - Railway
 - Natural Contours (5m Interval)

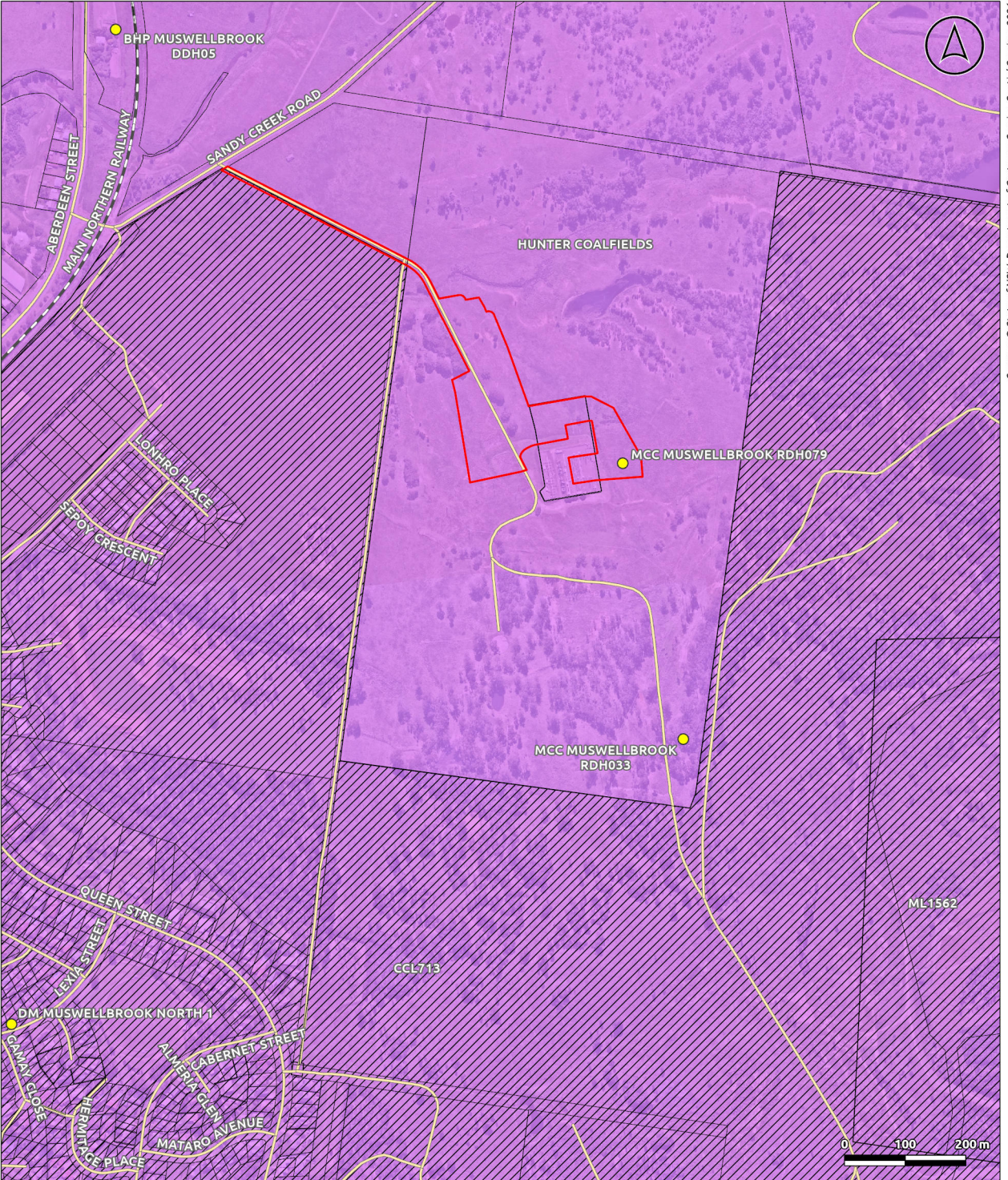
- Bush Fire Prone Land**
- Vegetation Category 1
 - Vegetation Category 3
 - Vegetation Buffer

Premise

FIRM POWER

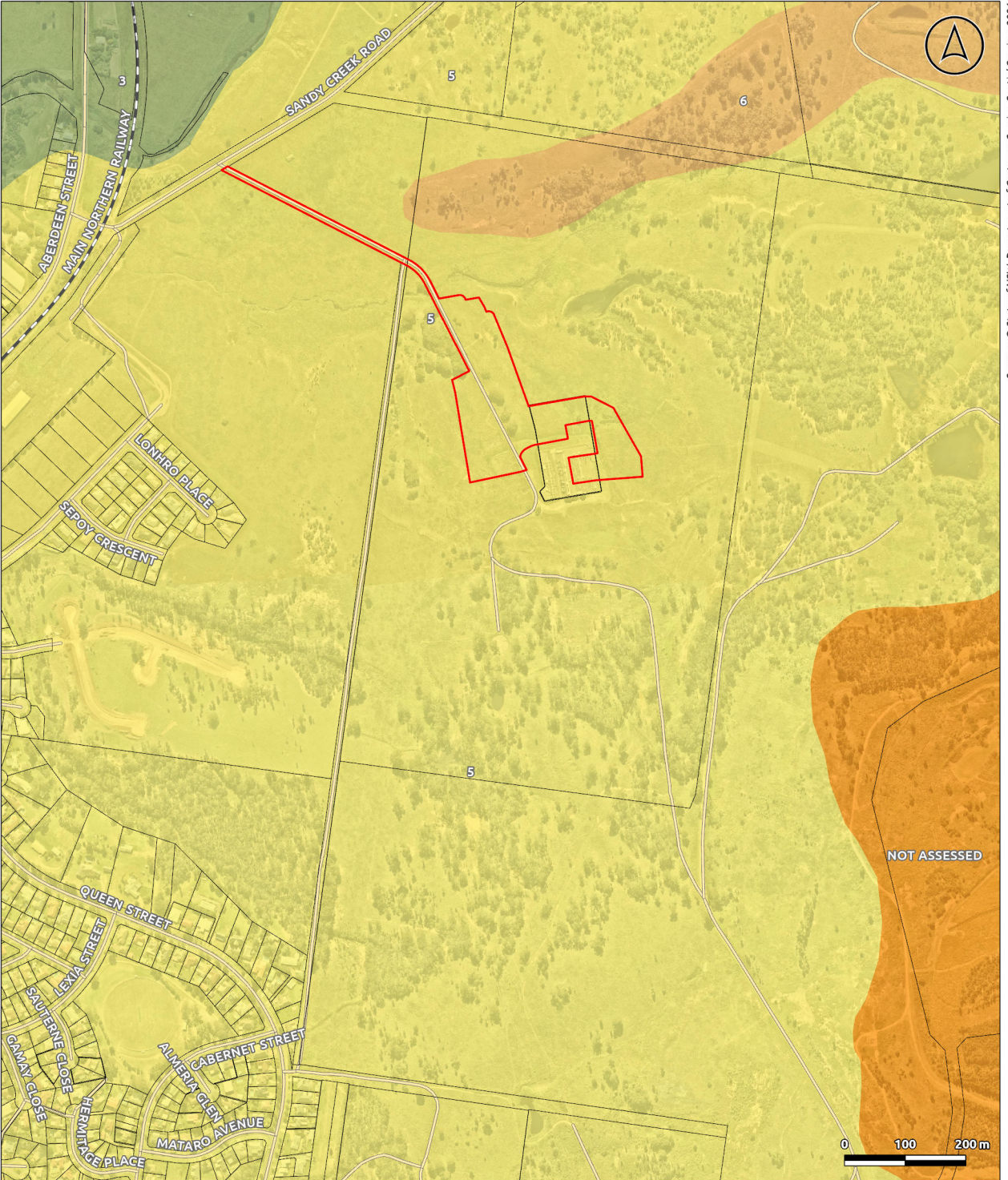
**Muswellbrook Battery
Energy Storage System**

Fig: Bush Fire Prone Land



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Muswellbrook Battery
Energy Storage System

Fig: Mining



Legend

- Development Site
- Cadastre
- Road
- Railway

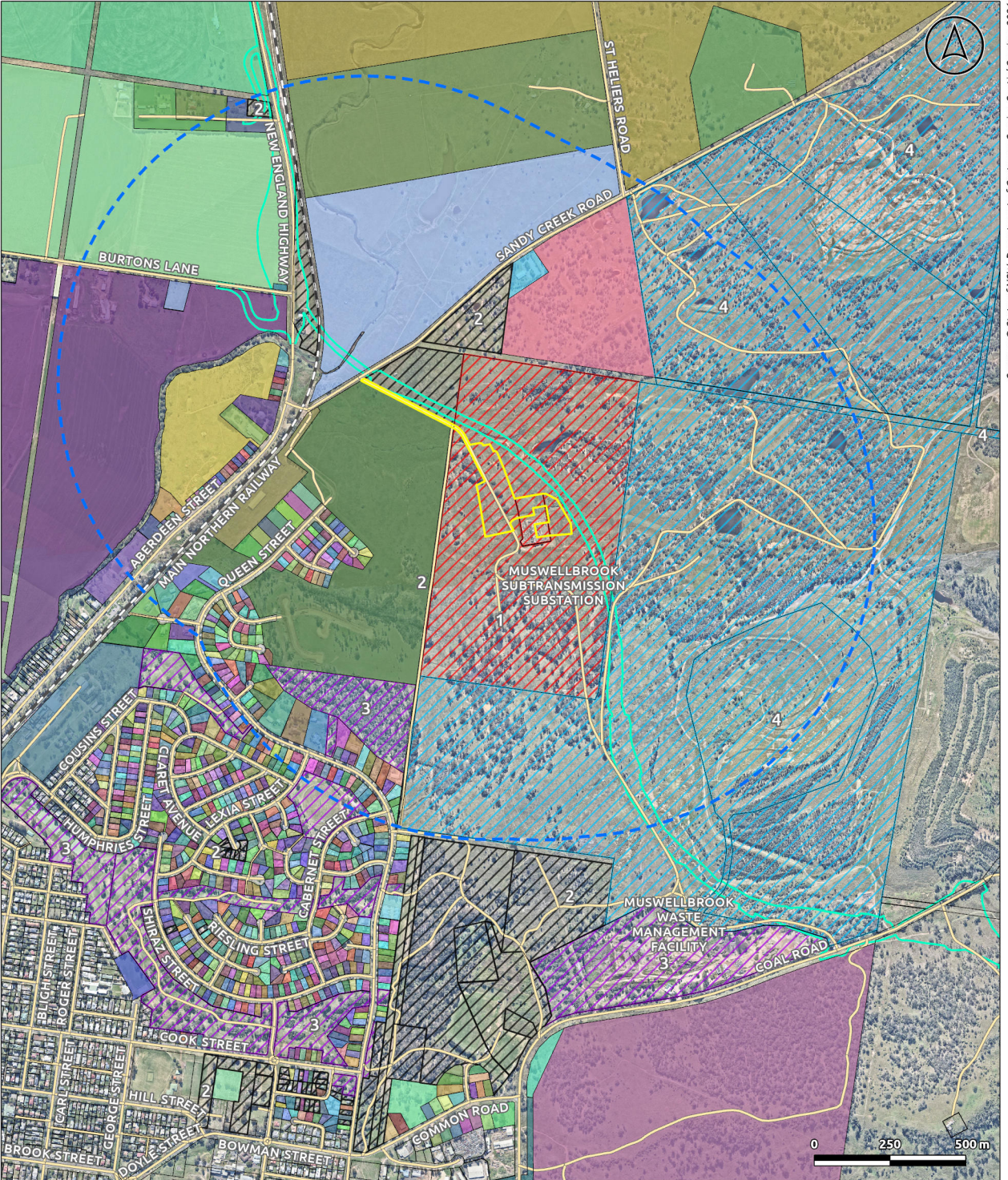
Land and Soil Capability

- 3
- 5
- 6
- NOT ASSESSED



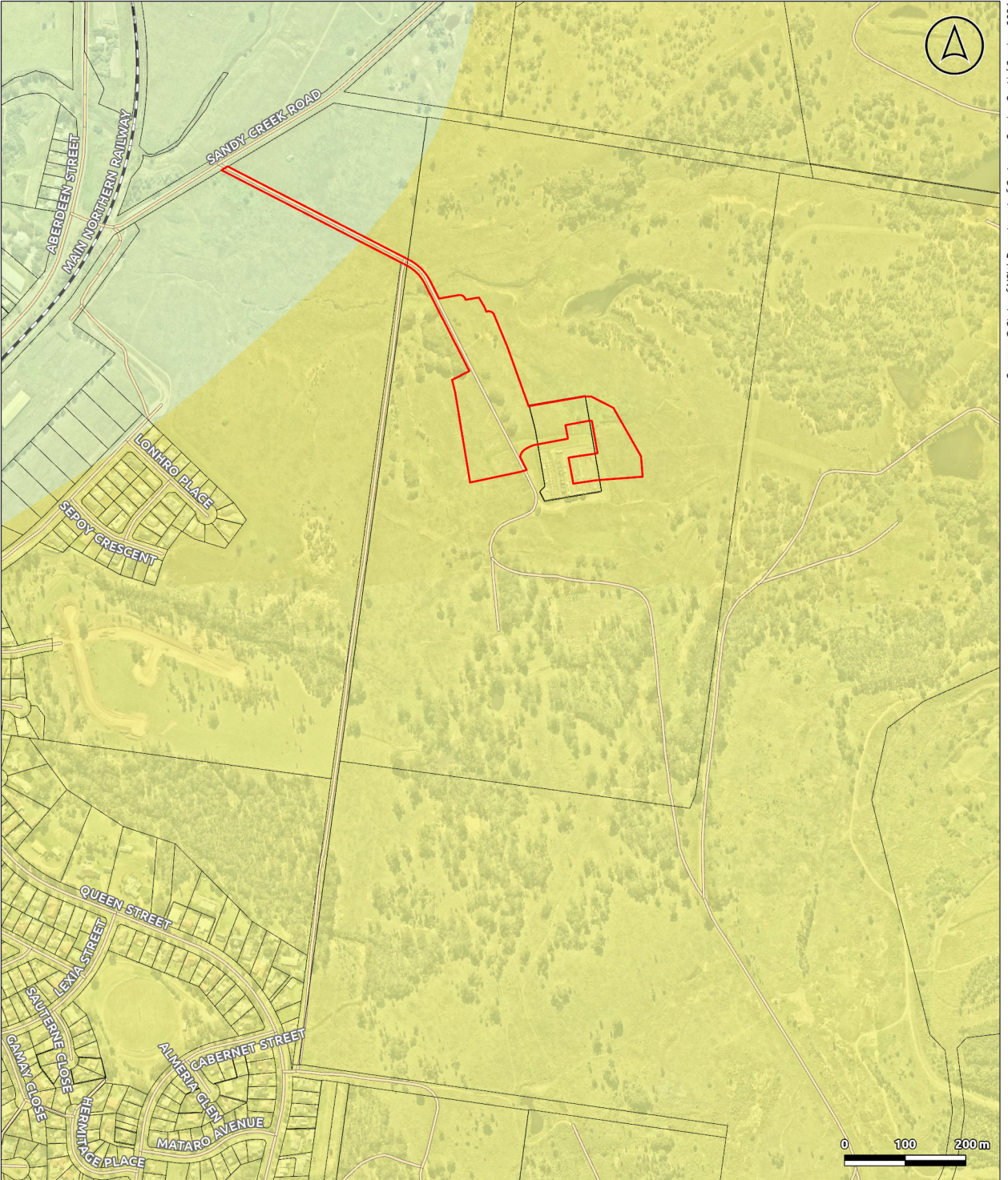
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Muswellbrook Battery
Energy Storage System

Fig: Land and Soil Capability



- Legend**
- Locality
 - Development Site
 - Cadastre
 - Road
 - Railway
 - Indicative Muswellbrook Bypass Footprint

- Landholdings**
- Site Landowner
 - NSW State Government
 - Muswellbrook Shire Council
 - Muswellbrook Coal Company



Legend

- Development Site
- Cadastre
- Road
- Railway

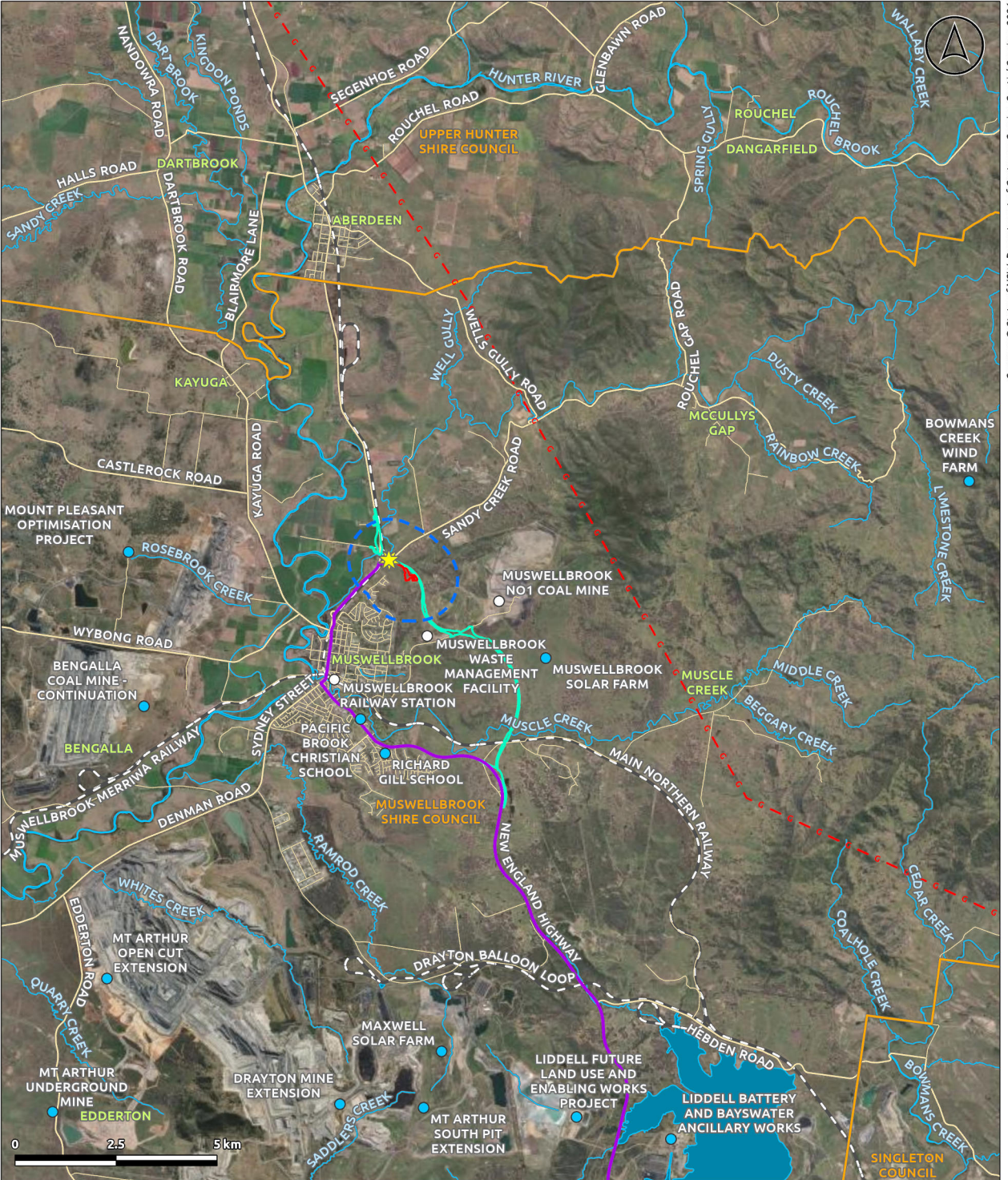
Soil Landscapes of the Singleton 1:250,000 Sheet

- ALLUVIAL SOILS
- YELLOW PODZOLIC SOILS



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Muswellbrook Battery
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Fig: Soil Landscapes



Legend

- Locality
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 **Premise**

FIRM POWER

**Muswellbrook Battery
Energy Storage System**

Fig: Local Context