

D:\UMWELT (AUSTRALIA) PTY LTD\4859-03\SANFIGURES_003\APPENDICES\APPENDIX_G4859_036_DD_RTS_PROJECT.MXD 10/08/2023 7:27:46 PM

Scale: 1:20000 at A3

GDA2020 MGA Zone 55

- Legend**
- RTS Project Site
 - RTS Development Corridor – Wind Farm
 - RTS Indicative Development Footprint – Wind Farm
 - RTS Indicative Development Footprint – Public Road Upgrades
 - RTS Wind Turbines
 - Drainage Line
 - Water Body
 - Roads

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 1.1 - D5

**Liverpool Range Wind Farm:
RTS Development Corridor and
RTS Indicative Development Footprints**



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Scale: 1:20000 at A3

GDA2020 MGA Zone 55

- Legend**
- RTS Project Site
 - Drainage Line
 - Water Body
 - Roads

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 1.1 - D6

**Liverpool Range Wind Farm:
RTS Development Corridor and
RTS Indicative Development Footprints**



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Scale: 1:20000 at A3

0 500 1,000 Metres

GDA2020 MGA Zone 55

- Legend**
- RTS Indicative Development Footprint – Public Road Upgrades
 - Drainage Line
 - Water Body
 - Roads

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 1.1 - E2

**Liverpool Range Wind Farm:
RTS Development Corridor and
RTS Indicative Development Footprints**



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Scale: 1:20000 at A3

GDA2020 MGA Zone 55

Legend

- - - RTS Project Site
- RTS Development Corridor – Wind Farm
- RTS Indicative Development Footprint – Wind Farm
- RTS Indicative Development Footprint – Public Road Upgrades
- Drainage Line
- Water Body
- Roads

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 1.1 - E3

**Liverpool Range Wind Farm:
RTS Development Corridor and
RTS Indicative Development Footprints**

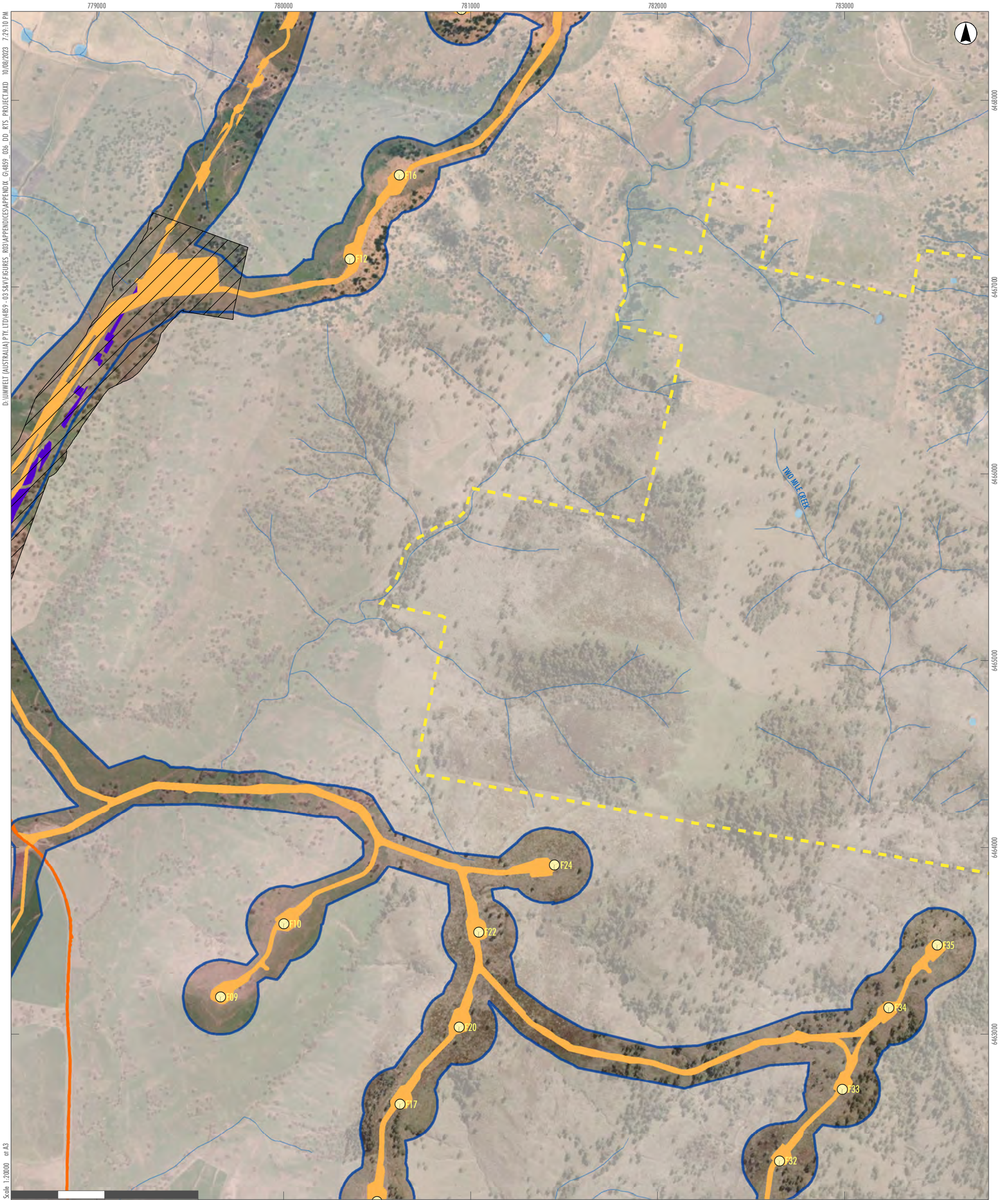


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- Legend**
- RTS Project Site
 - RTS Development Corridor – Wind Farm
 - RTS Development Corridor – External Transmission Line
 - RTS Indicative Development Footprint – Wind Farm
 - RTS Indicative Development Footprint – External Transmission Line
 - RTS Indicative Development Footprint – Public Road Upgrades
 - RTS Wind Turbines
 - Drainage Line
 - Water Body
 - Roads

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 1.1 - E4
Liverpool Range Wind Farm:
RTS Development Corridor and
RTS Indicative Development Footprints



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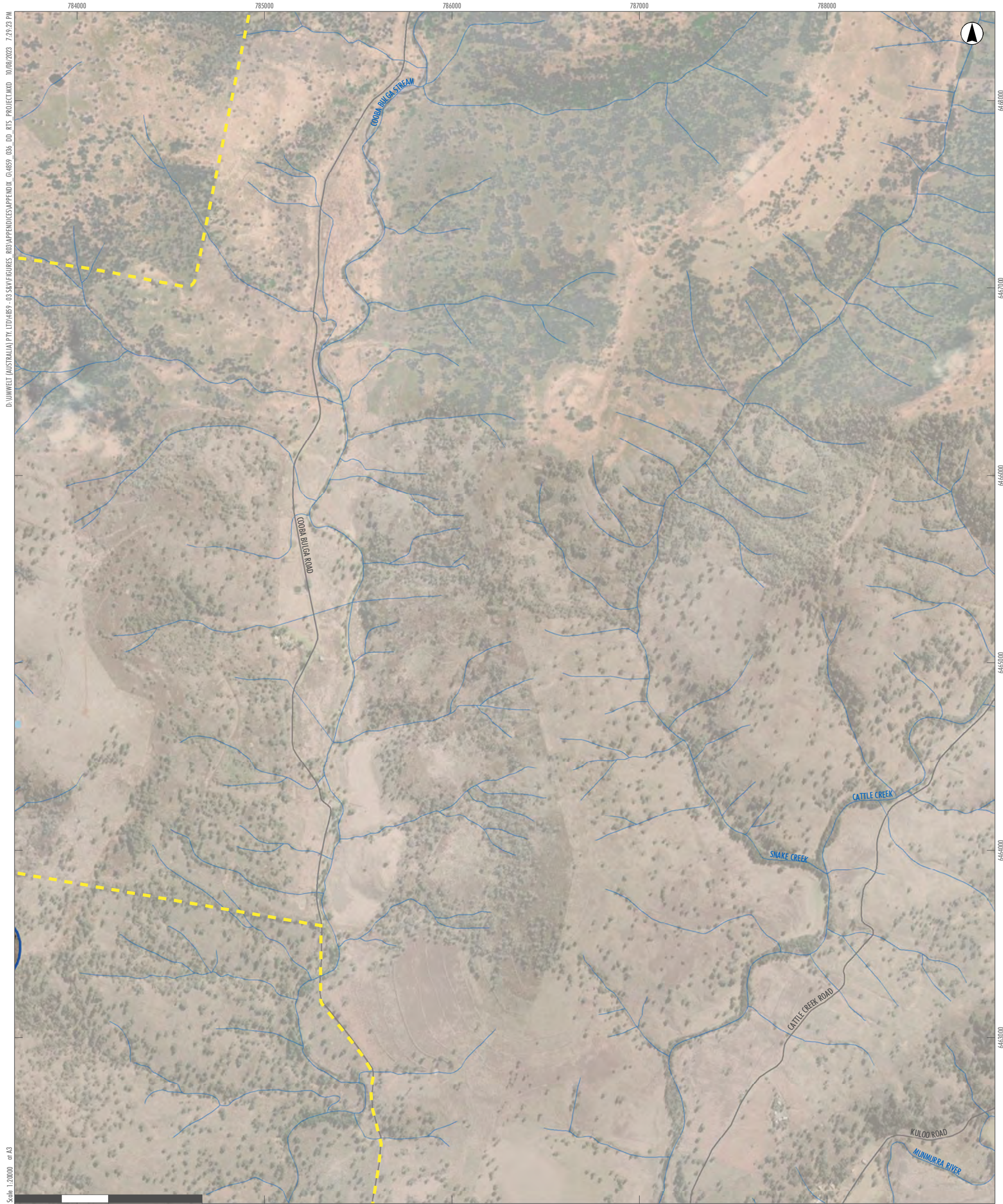
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- Legend**
- RTS Project Site
 - RTS Development Corridor – Wind Farm
 - RTS Development Corridor – External Transmission Line
 - RTS Indicative Development Footprint – Wind Farm
 - RTS Indicative Development Footprint – External Transmission Line
 - RTS Indicative Development Footprint – Public Road Upgrades
 - RTS Wind Turbines
 - Drainage Line
 - Water Body
 - Roads

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 1.1 - E5

**Liverpool Range Wind Farm:
RTS Development Corridor and
RTS Indicative Development Footprints**



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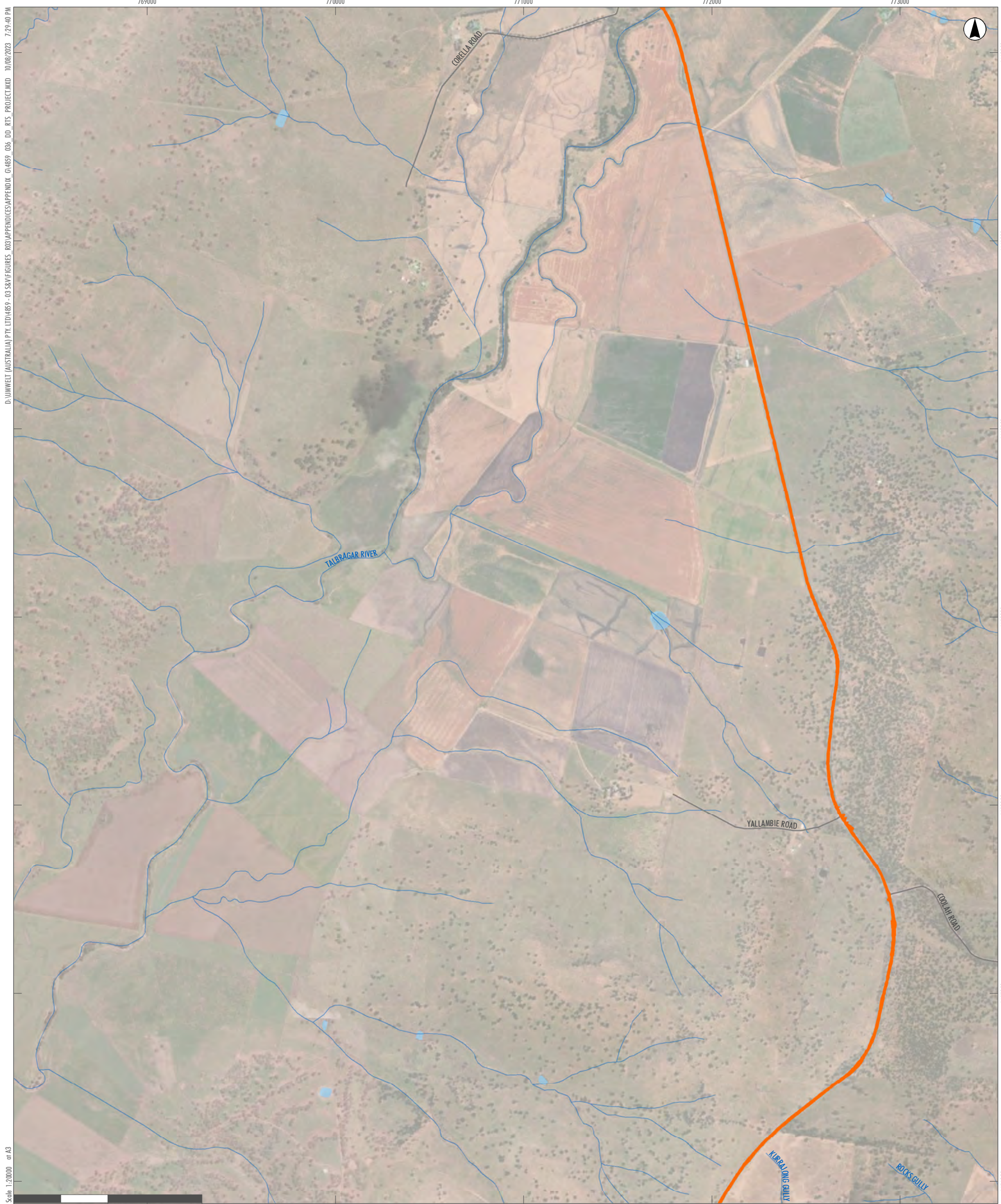
GDA2020 MGA Zone 55

- Legend**
- RTS Project Site
 - RTS Development Corridor – Wind Farm
 - Drainage Line
 - Water Body
 - Roads

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	F6
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 1.1 - E6

**Liverpool Range Wind Farm:
RTS Development Corridor and
RTS Indicative Development Footprints**



- Legend**
- RTS Indicative Development Footprint – Public Road Upgrades
 - Drainage Line
 - Water Body
 - Roads

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 1.1 - F3

**Liverpool Range Wind Farm:
RTS Development Corridor and
RTS Indicative Development Footprints**



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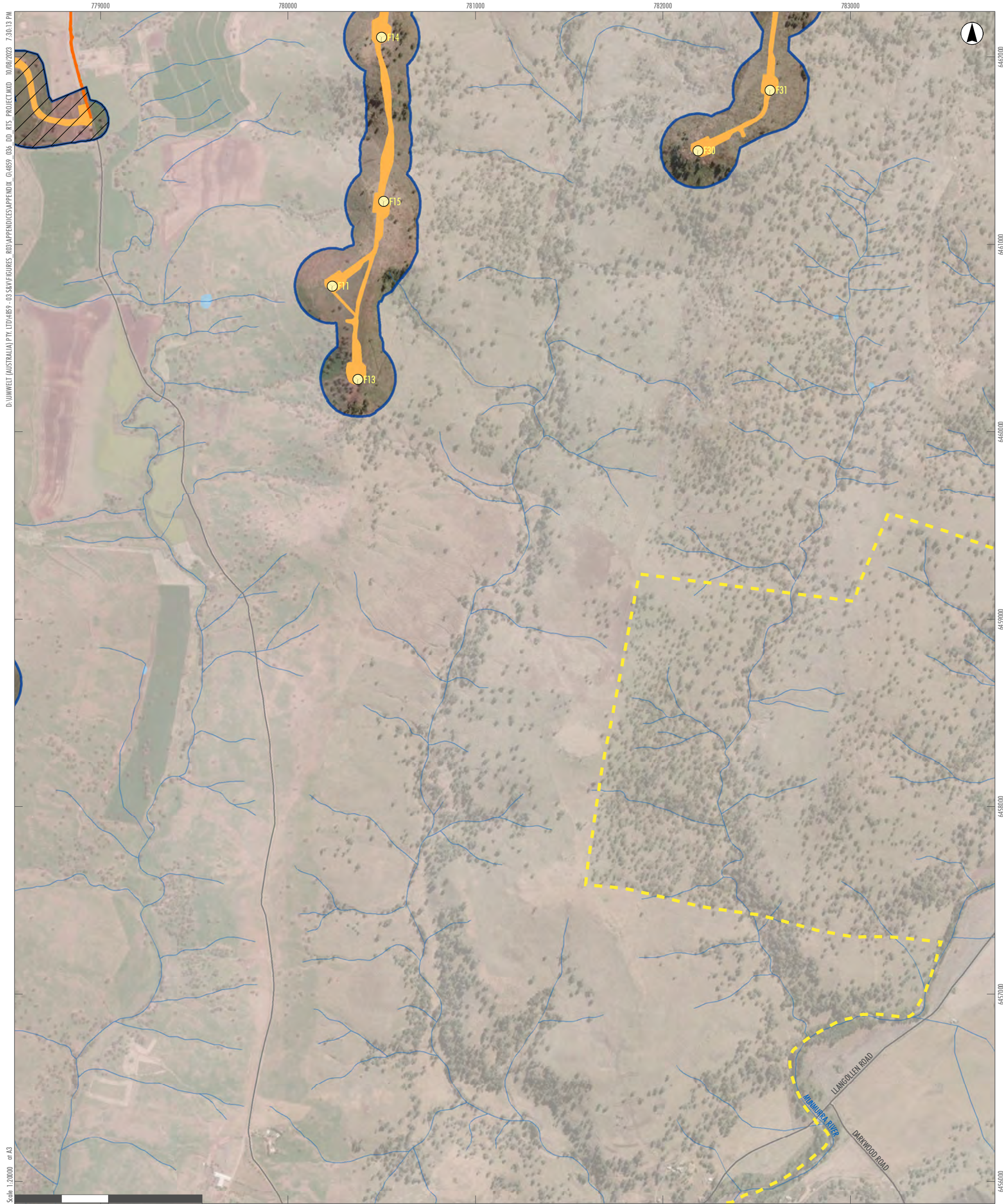
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GDA2020 MGA Zone 55

- Legend**
- RTS Project Site
 - RTS Development Corridor – Wind Farm
 - RTS Development Corridor – External Transmission Line
 - RTS Indicative Development Footprint – Wind Farm
 - RTS Indicative Development Footprint – External Transmission Line
 - RTS Wind Turbines
 - Drainage Line
 - Water Body
 - Roads

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 1.1 - F4
Liverpool Range Wind Farm:
RTS Development Corridor and
RTS Indicative Development Footprints



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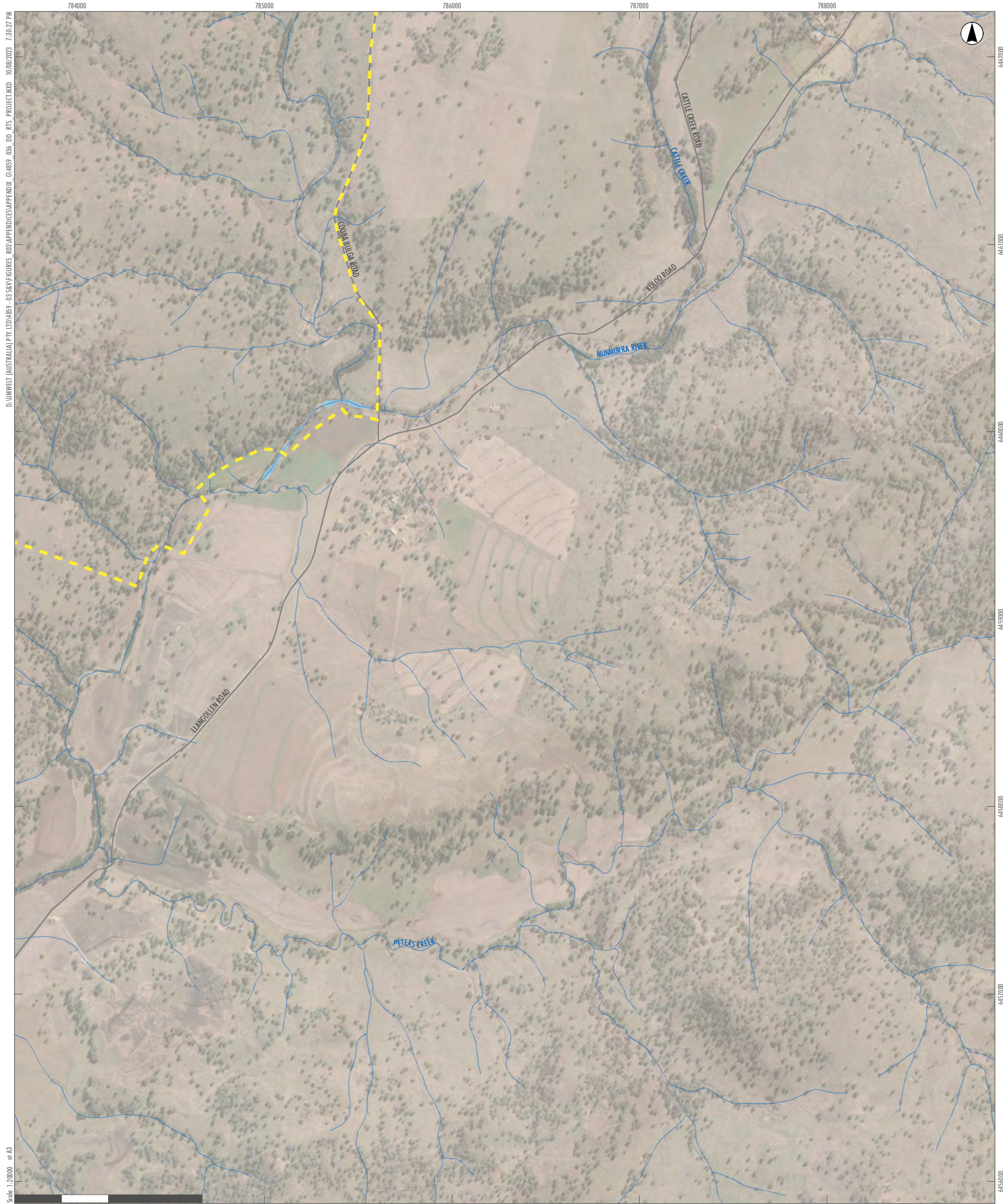
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- Legend**
- RTS Project Site
 - RTS Development Corridor – Wind Farm
 - RTS Development Corridor – External Transmission Line
 - RTS Indicative Development Footprint – Wind Farm
 - RTS Indicative Development Footprint – Public Road Upgrades
 - RTS Wind Turbines
 - Drainage Line
 - Water Body
 - Roads

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 1.1 - F5

**Liverpool Range Wind Farm:
RTS Development Corridor and
RTS Indicative Development Footprints**



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GDA2020 MGA Zone 55

- Legend**
- - - RTS Project Site
 - Drainage Line
 - Water Body
 - Roads

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 1.1 - F6

**Liverpool Range Wind Farm:
RTS Development Corridor and
RTS Indicative Development Footprints**



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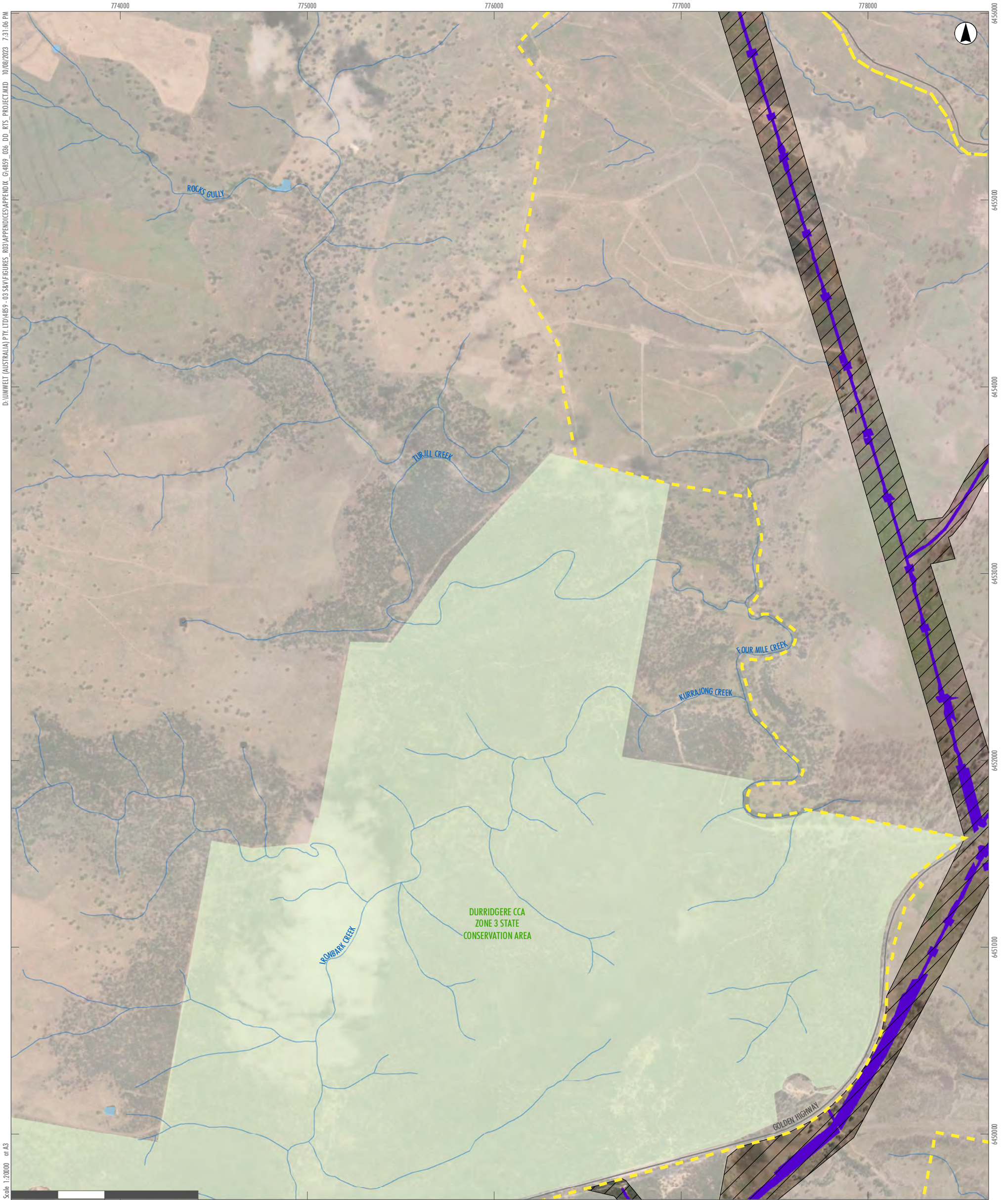
GDA2020 MGA Zone 55

- Legend**
- RTS Indicative Development Footprint – Public Road Upgrades
 - Drainage Line
 - Water Body
 - Roads
 - National Parks (NPWS Estate)

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 1.1 - G3

**Liverpool Range Wind Farm:
RTS Development Corridor and
RTS Indicative Development Footprints**



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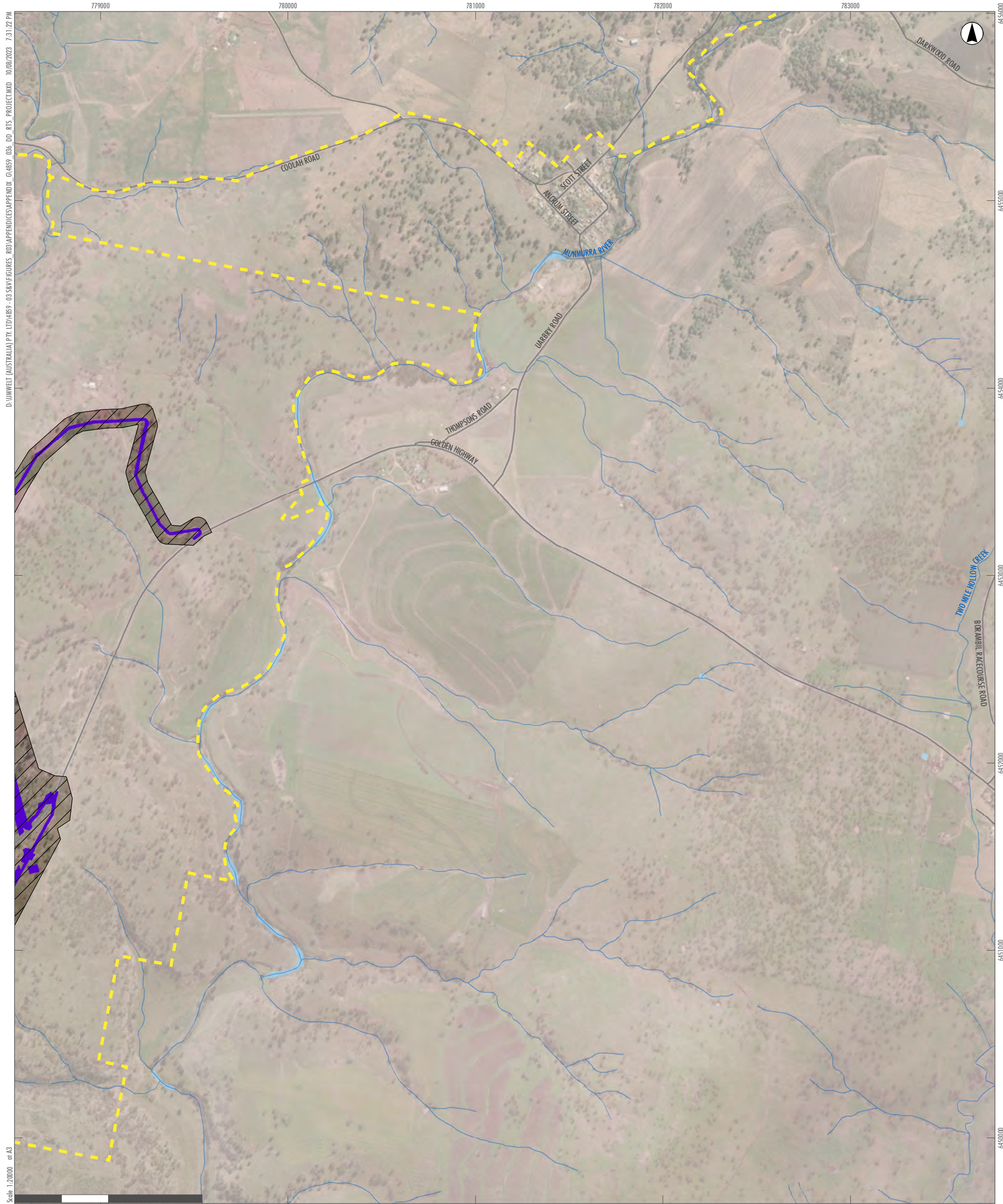
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GDA2020 MGA Zone 55

- Legend**
- RTS Project Site
 - RTS Development Corridor – External Transmission Line
 - RTS Indicative Development Footprint – External Transmission Line
 - Drainage Line
 - Water Body
 - Roads
 - National Parks (NPWS Estate)

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 1.1 - G4
Liverpool Range Wind Farm:
RTS Development Corridor and
RTS Indicative Development Footprints



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Scale: 1:20000 at A3

GDA2020 MGA Zone 55

- Legend**
- RTS Project Site
 - RTS Development Corridor – External Transmission Line
 - RTS Indicative Development Footprint – External Transmission Line
 - Drainage Line
 - Water Body
 - Roads

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 1.1 - G5

**Liverpool Range Wind Farm:
RTS Development Corridor and
RTS Indicative Development Footprints**



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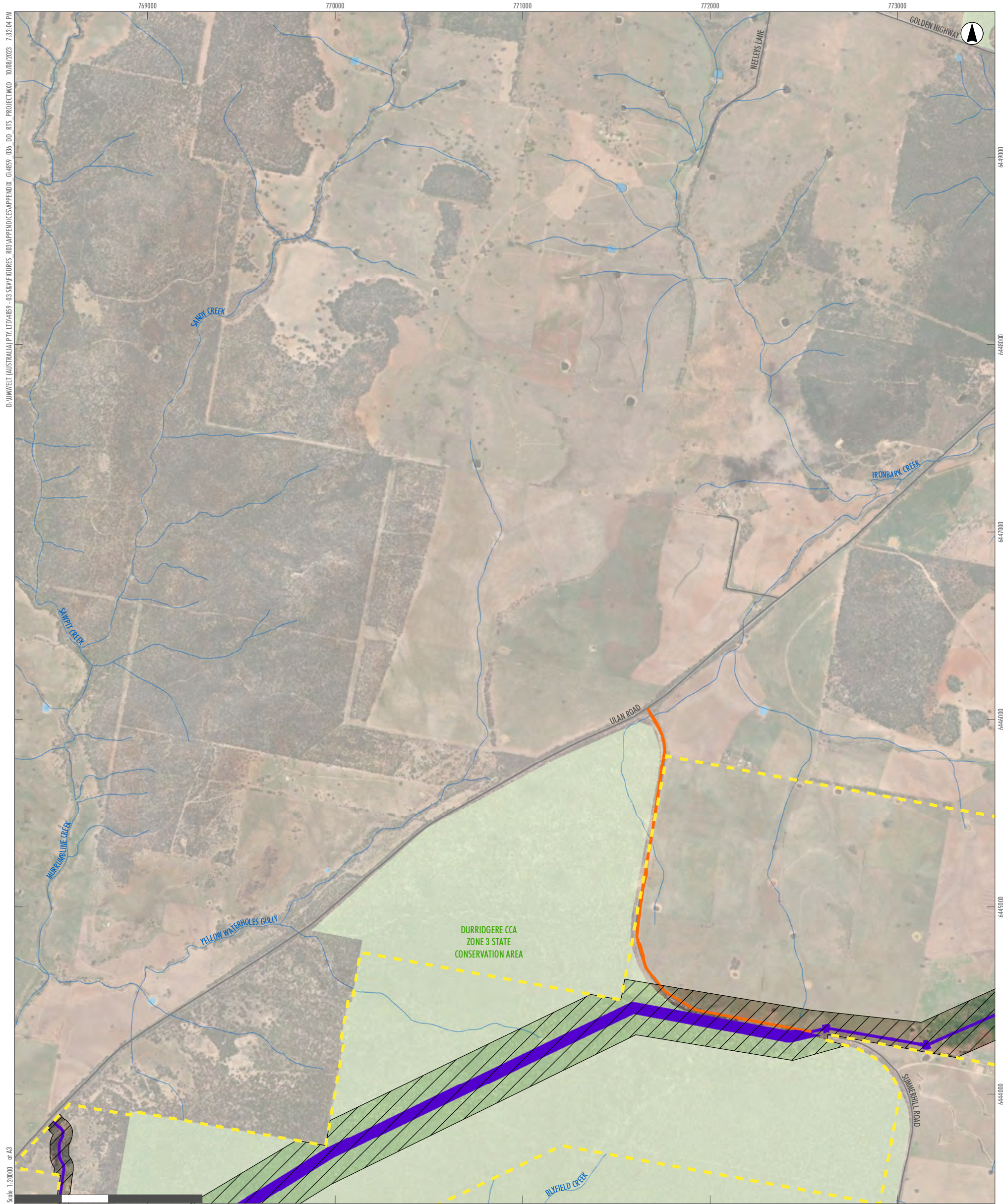
GDA2020 MGA Zone 55

- Legend**
- RTS Project Site
 - Drainage Line
 - Water Body
 - Roads
 - National Parks (NPWS Estate)

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 1.1 - H2

**Liverpool Range Wind Farm:
RTS Development Corridor and
RTS Indicative Development Footprints**



Scale: 1:20,000 at A3

- Legend**
- RTS Project Site
 - RTS Development Corridor - External Transmission Line
 - RTS Indicative Development Footprint - External Transmission Line
 - RTS Indicative Development Footprint - Public Road Upgrades
 - Drainage Line
 - Water Body
 - Roads
 - National Parks (NPWS Estate)

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 1.1 - H3
Liverpool Range Wind Farm:
RTS Development Corridor and
RTS Indicative Development Footprints



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Scale: 1:20000 at A3

- Legend**
- RTS Project Site
 - RTS Development Corridor – External Transmission Line
 - RTS Indicative Development Footprint – External Transmission Line
 - Drainage Line
 - Water Body
 - Roads
 - National Parks (NPWS Estate)

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 1.1 - H4

**Liverpool Range Wind Farm:
RTS Development Corridor and
RTS Indicative Development Footprints**



- Legend**
- RTS Project Site
 - Drainage Line
 - Water Body
 - Roads
 - National Parks (NPWS Estate)

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 1.1 - I1

**Liverpool Range Wind Farm:
RTS Development Corridor and
RTS Indicative Development Footprints**



A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 1.1 - 12

**Liverpool Range Wind Farm:
RTS Development Corridor and
RTS Indicative Development Footprints**



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GDA2020 MGA Zone 55

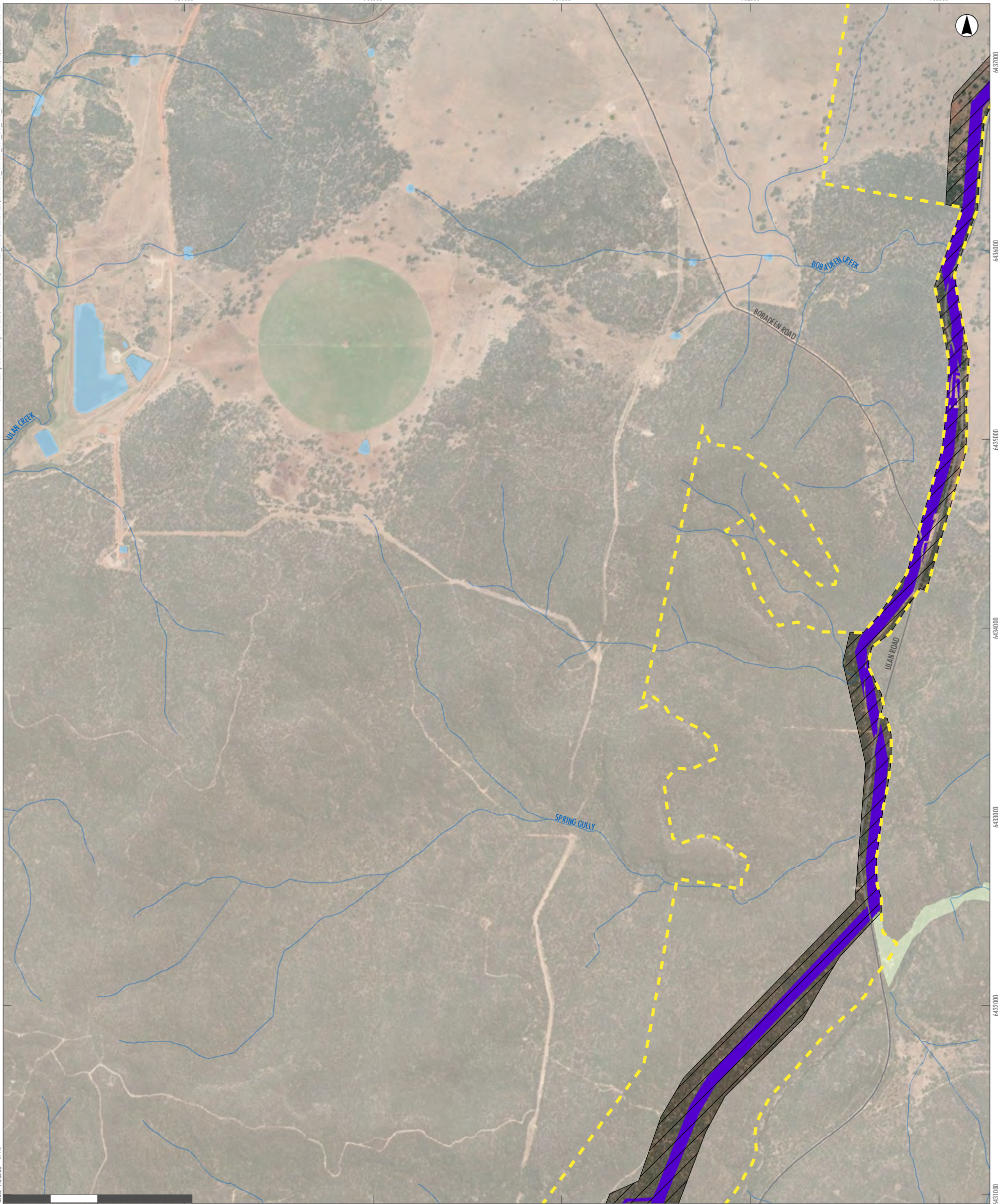
- Legend**
- RTS Project Site
 - RTS Development Corridor – External Transmission Line
 - RTS Indicative Development Footprint – External Transmission Line
 - Drainage Line
 - Water Body
 - Roads
 - National Parks (NPWS Estate)

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 1.1 - I3

**Liverpool Range Wind Farm:
RTS Development Corridor and
RTS Indicative Development Footprints**

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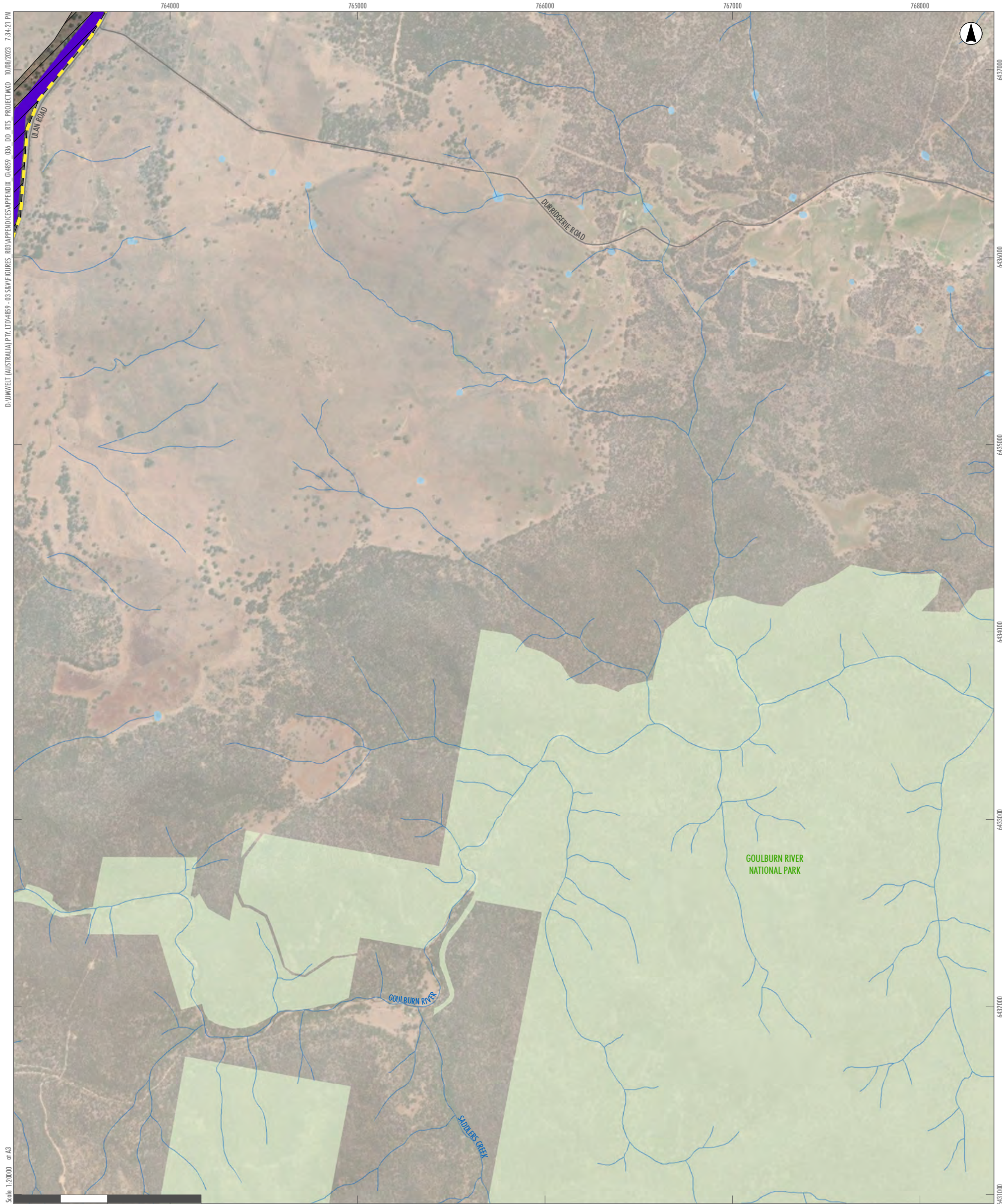
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0 500 1,000 Metres

GDA2020 MGA Zone 55

- Legend**
- RTS Project Site
 - RTS Development Corridor – External Transmission Line
 - RTS Indicative Development Footprint – External Transmission Line
 - Drainage Line
 - Water Body
 - Roads
 - National Parks (NPWS Estate)

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 1.1 - J1
Liverpool Range Wind Farm:
RTS Development Corridor and
RTS Indicative Development Footprints



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Scale: 1:20000 at A3

- Legend**
- RTS Project Site
 - RTS Development Corridor – External Transmission Line
 - RTS Indicative Development Footprint – External Transmission Line
 - Drainage Line
 - Water Body
 - Roads
 - National Parks (NPWS Estate)

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 1.1 - J2

**Liverpool Range Wind Farm:
RTS Development Corridor and
RTS Indicative Development Footprints**



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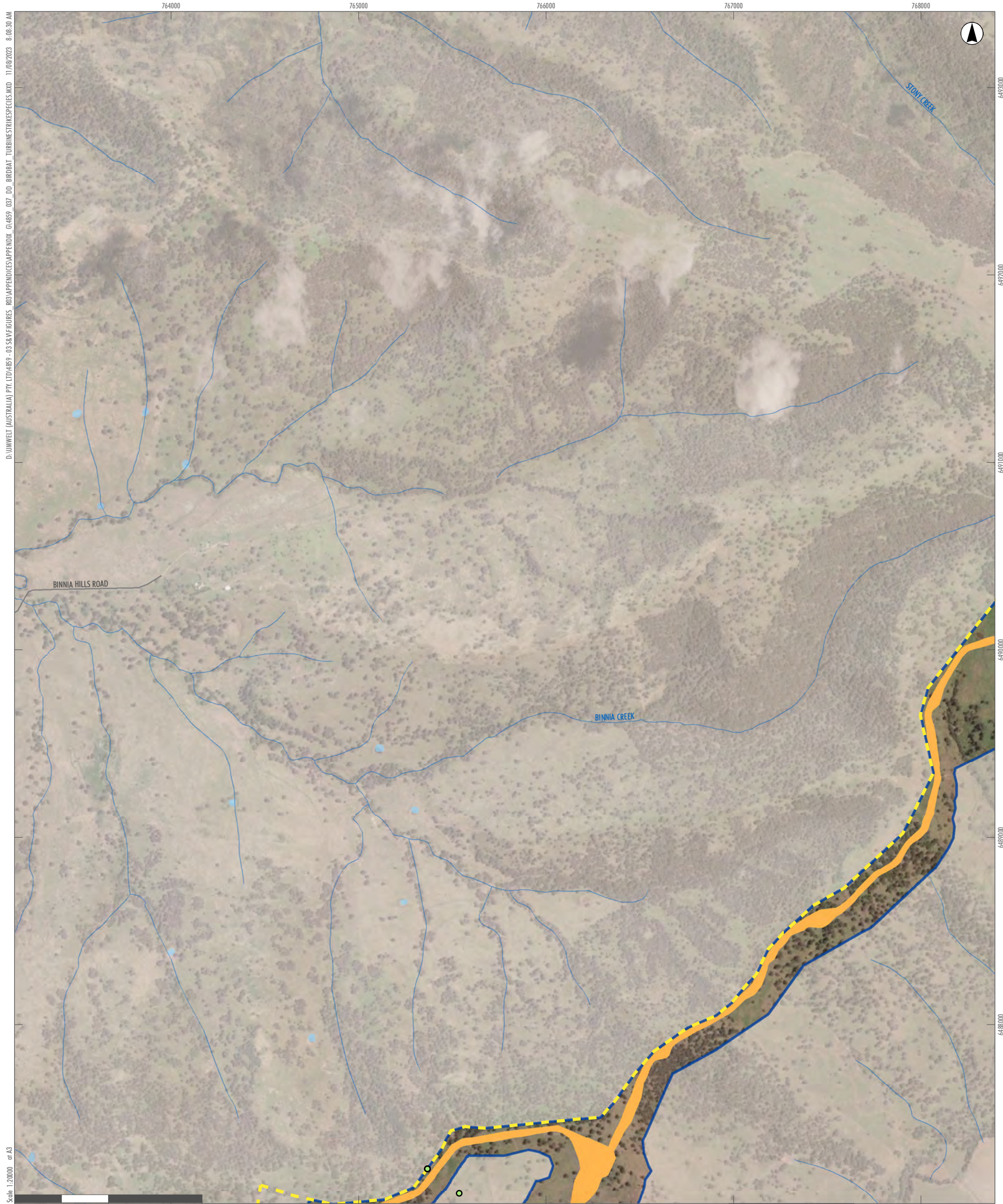
GDA2020 MGA Zone 55

- Legend**
- RTS Project Site
 - RTS Development Corridor – External Transmission Line
 - RTS Indicative Development Footprint – External Transmission Line
 - Drainage Line
 - Water Body
 - Roads

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 1.1 - K1

**Liverpool Range Wind Farm:
RTS Development Corridor and
RTS Indicative Development Footprints**



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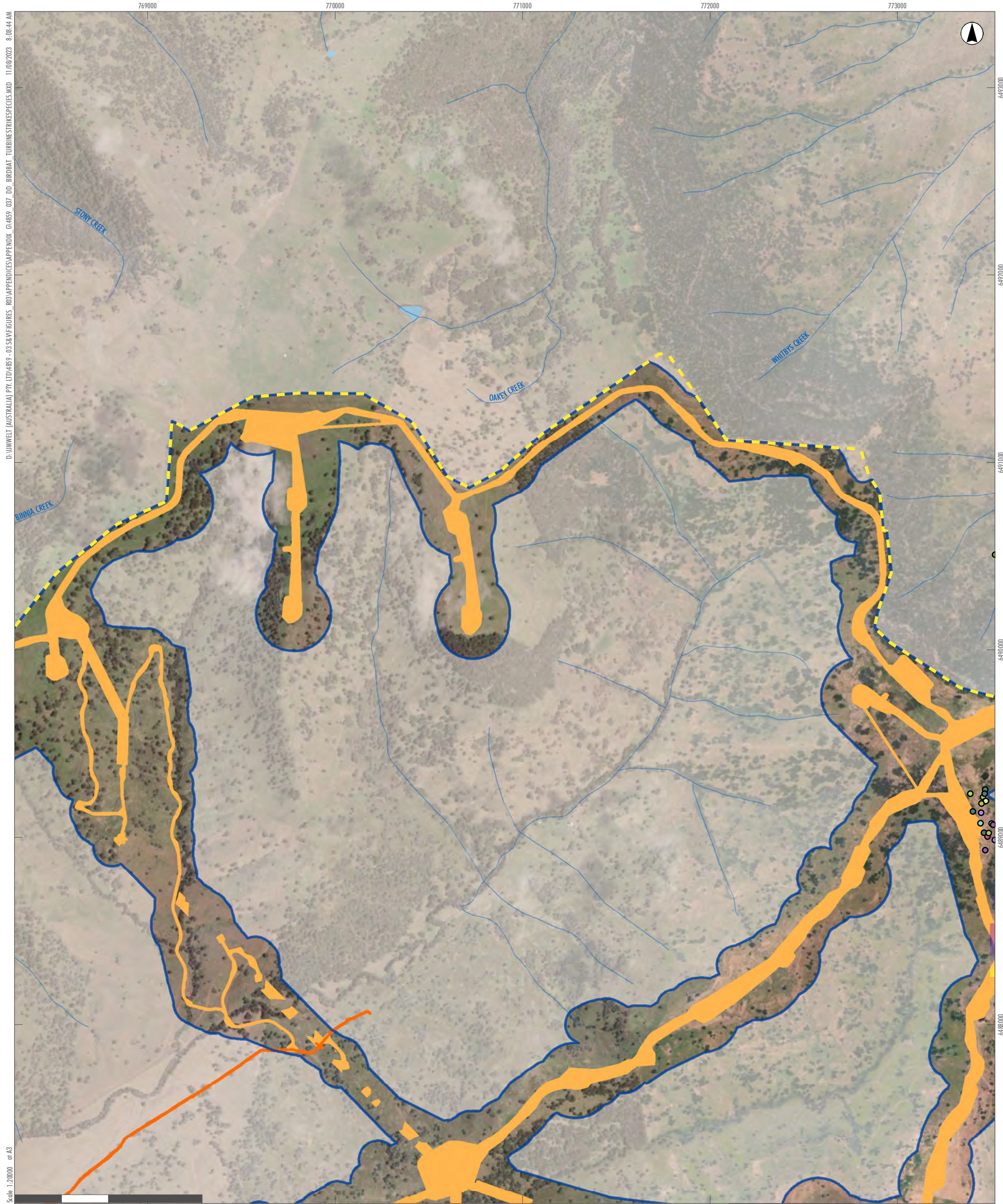
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- Legend**
- - - RTS Project Site
 - - - RTS Development Corridor – Wind Farm
 - RTS Indicative Development Footprint – Wind Farm
 - Roads
 - Drainage Line
 - Water Body

- Umwelt and NGH Records**
- Australian magpie
 - Australian raven
 - Eastern rosella
 - Galah
 - Laughing kookaburra
 - Musk lorikeet
 - Noisy miner
 - Pied butcherbird
 - Pied currawong
 - Red-rumped parrot

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - A2
**Liverpool Range Wind Farm
 Bird and Bat Turbine
 Strike Species**



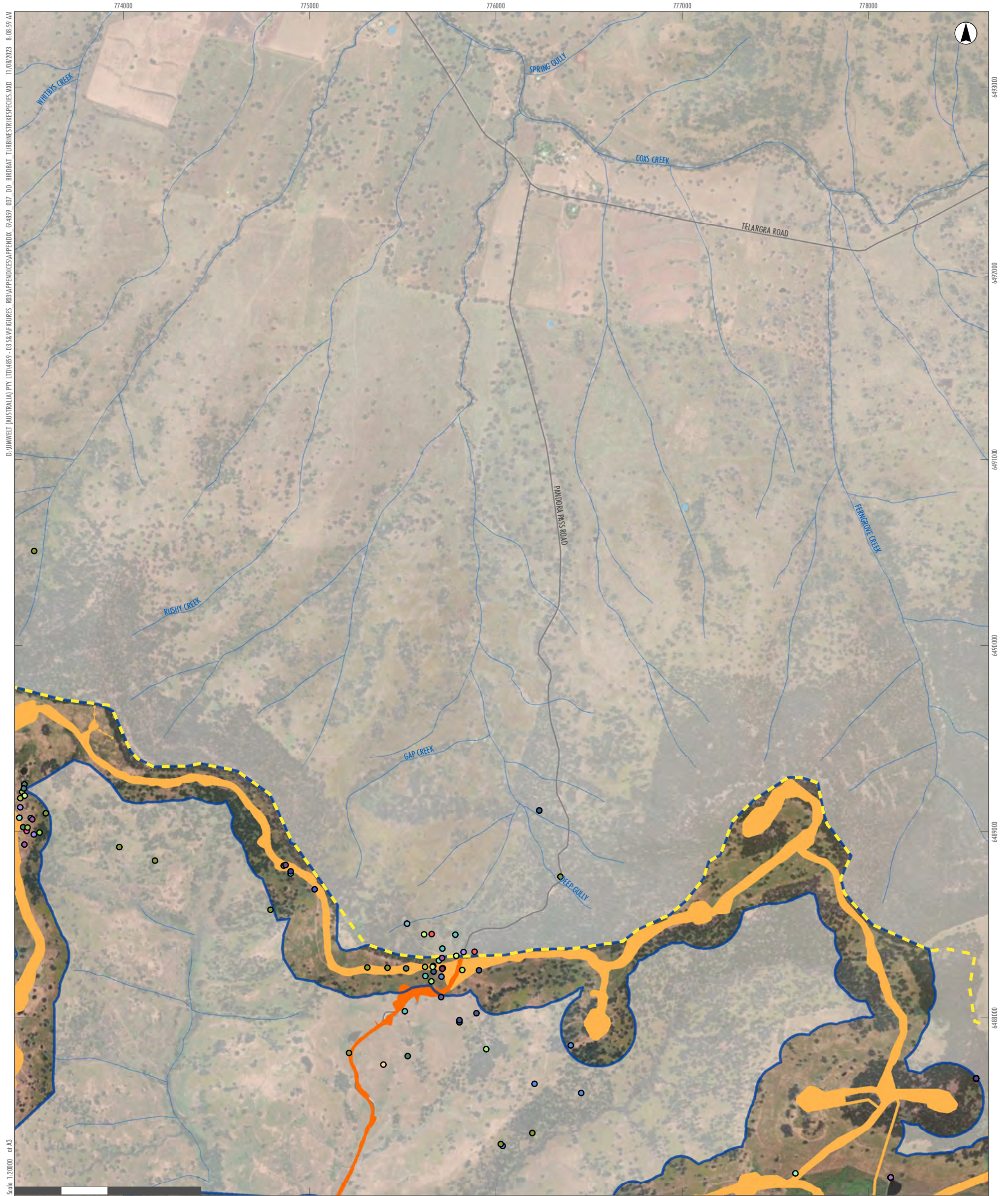
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- Legend**
- RTS Project Site
 - RTS Development Corridor – Wind Farm
 - RTS Indicative Development Footprint – Wind Farm
 - RTS Indicative Development Footprint – Public Road Upgrades
 - Drainage Line
 - Water Body
- Umwelt and NGH Records**
- Noisy miner
 - Striated pardalote
 - Crimson rosella
 - Pied currawong
 - Eastern rosella
 - Red wattlebird
 - Spotted pardalote
 - Welcome swallow
 - Noisy friarbird
 - Wedge-tailed eagle
 - Yellow-faced honeyeater

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - A3
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



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- Legend**
- ▬ RTS Project Site
 - ▬ RTS Development Corridor – Wind Farm
 - ▬ RTS Indicative Development Footprint – Wind Farm
 - ▬ RTS Indicative Development Footprint – Public Road Upgrades
 - ▬ Roads
 - ▬ Drainage Line
 - ▬ Water Body

- Umwelt and NGH Records**
- Australasian grebe
 - Australian magpie
 - Australian raven
 - Black-faced cuckoo-shrike
 - Brown thornbill
 - Buff-rumped thornbill
 - Crimson rosella
 - Eastern cave bat
 - Eastern rosella
 - Galah

- Large bent-winged bat
- Laughing kookaburra
- Musk lonkeet
- Nankeen kestrel
- Noisy friarbird
- Noisy miner
- Olive-backed oriole
- Pacific black duck
- Pallid cuckoo
- Peregrine falcon
- Pied butcherbird

- Pied currawong
- Red wattlebird
- Spotted pardalote
- Straw-necked ibis
- Striated pardalote
- Sulphur-crested cockatoo
- Unidentified duck
- Wedge-tailed eagle
- Welcome swallow
- White-throated treecreeper
- Yellow-faced honeyeater
- Yellow-rumped thornbill

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - A4
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



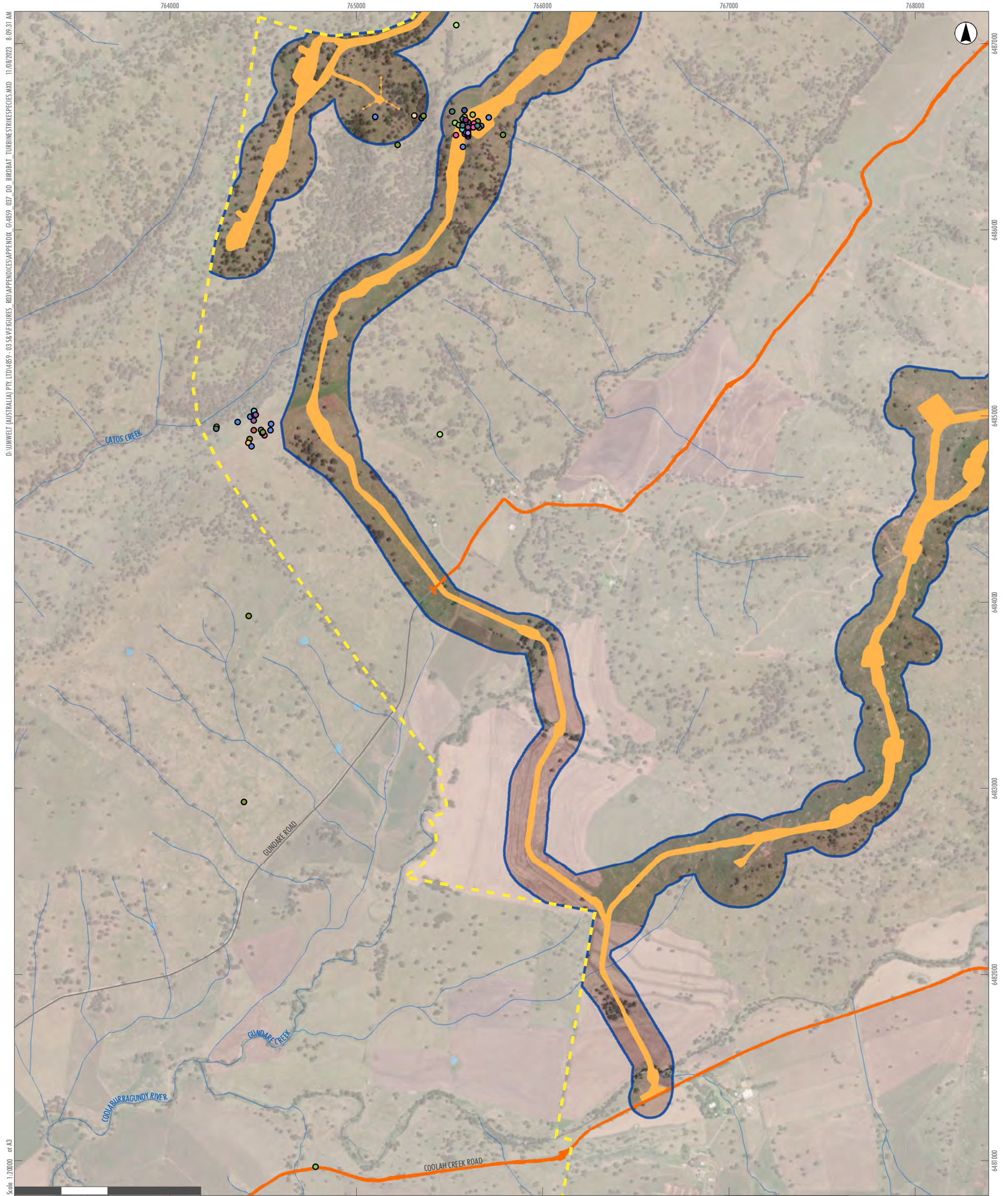
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- Legend**
- RTS Project Site
 - RTS Development Corridor – Wind Farm
 - RTS Indicative Development Footprint – Wind Farm
 - Roads
 - Drainage Line
 - Water Body
 - National Parks (NPWS Estate)

- Umwelt and NGH Records**
- Australasian grebe
 - Australian magpie
 - Australian raven
 - Australian wood duck
 - Black-faced cuckoo-shrike
 - Crimson rosella
 - Eastern rosella
 - Eastern spinebill
 - Galah
 - Grey butcherbird
 - Laughing kookaburra
 - Little pied cormorant
 - Musk lorikeet
 - Nankeen kestrel
 - Olive-backed oriole
 - Pied butcherbird
 - Pied currawong
 - Red wattlebird
 - Scarlet robin
 - Southern boobook
 - Spotted pardalote
 - Striated pardalote
 - Sulphur-crested cockatoo
 - Superb fairywren
 - Unidentified bird
 - Wedge-tailed eagle
 - Yellow-faced honeyeater

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - A5
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



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- Legend**
- ▬ RTS Project Site
 - RTS Development Corridor – Wind Farm
 - RTS Indicative Development Footprint – Wind Farm
 - RTS Indicative Development Footprint – Public Road Upgrades
 - ▬ Roads
 - ▬ Drainage Line
 - Water Body

- Umwelt and NGH Records**
- Australasian figbird
 - Australian magpie
 - Australian owl-nightjar
 - Australian raven
 - Brown falcon
 - Crested pigeon

- Crimson rosella
- Eastern cave bat
- Eastern rosella
- Galah
- Grey butcherbird
- Australian raven
- Musk lorikeet
- Noisy friarbird

- Pied currawong
- Red wattlebird
- Southern myotis
- Spotted pardalote
- Sulphur-crested cockatoo
- Wedge-tailed eagle
- Welcome swallow
- Yellow-faced honeyeater

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - B2
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



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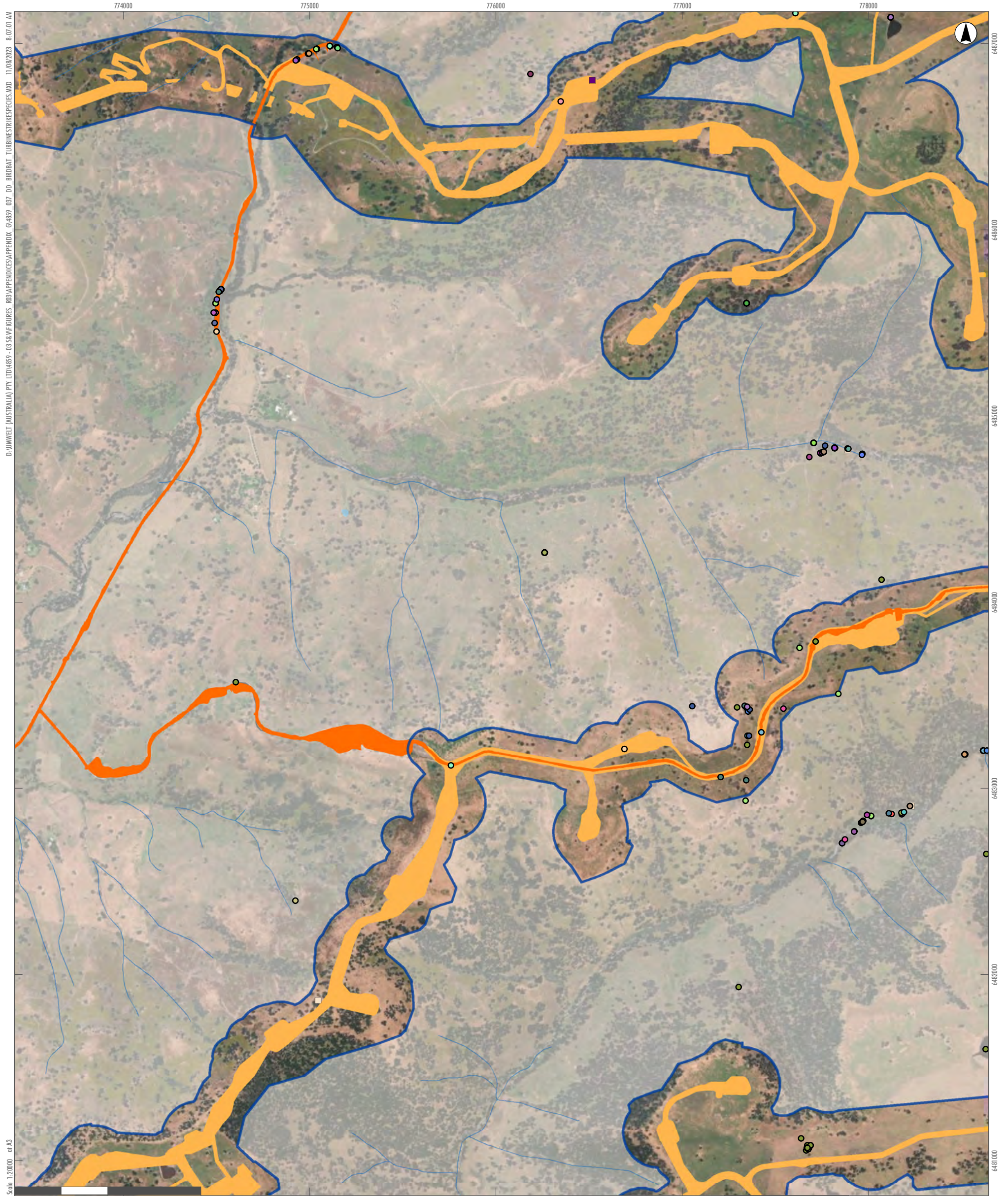
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GDA2020 MGA Zone 55

- Legend**
- RTS Project Site
 - RTS Development Corridor – Wind Farm
 - RTS Indicative Development Footprint – Wind Farm
 - RTS Indicative Development Footprint – Public Road Upgrades
 - Roads
 - Drainage Line
 - Water Body

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - B3
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



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- Legend**
- RTS Project Site
 - RTS Development Corridor – Wind Farm
 - RTS Indicative Development Footprint – Wind Farm
 - RTS Indicative Development Footprint – Public Road Upgrades
 - Roads
 - Drainage Line
 - Water Body

- NSW Bionet Atlas TS Records**
- Dusky Woodswallow
 - Little Lorikeet

- Umwelt and NGH Records**
- Australasian grebe
 - Australian golden whistler
 - Australian king parrot
 - Australian magpie
 - Australian raven
 - Australian wood duck
 - Black-faced cuckoo-shrike
 - Black-shouldered kite
 - Brown thornbill
 - Common bronzewing
 - Corben's long-eared bat
 - Crested pigeon
 - Crimson rosella

- Dusky woodswallow
- Easter rosella
- Eastern cave bat
- Eastern rosella
- Eastern spinebill
- Eastern yellow robin
- Fairy martin
- Galah
- Golden whistler
- Grey butcherbird
- Grey fantail
- Large bent-winged bat
- Large-eared pied bat
- Laughing kookaburra

- Little lorikeet
- Magpie-lark
- Musk lorikeet
- Nankeen kestrel
- Noisy friarbird
- Noisy miner
- Pacific black duck
- Pied butcherbird
- Pied currawong
- Red wattlebird
- Spotted pardalote
- Straw-necked ibis
- Striated pardalote
- Striated thornbill

- Sulphur-crested cockatoo
- Superb fairywren
- Unidentified duck
- Unidentified lorikeet
- Wedge-tailed eagle
- Welcome swallow
- White-browed scrubwren
- White-naped honeyeater
- White-necked heron
- White-throated treecreeper
- White-winged chough
- White-winged triller
- Willie wagtail
- Yellow-faced honeyeater
- Yellow-rumped thornbill

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - B4
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



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- Legend**
- RTS Project Site
 - RTS Development Corridor – Wind Farm
 - RTS Indicative Development Footprint – Wind Farm
 - RTS Indicative Development Footprint – Public Road Upgrades
 - Roads
 - Drainage Line
 - Water Body
 - National Parks (NPWS Estate)

- NSW Bionet Atlas TS Records**
- Eastern False Pipistrelle
 - Powerful Owl

- Umwelt and NGH Records**
- Australian king parrot
 - Australian magpie
 - Australian raven
 - Barking owl
 - Black-faced cuckoo-shrike
 - Black-shouldered kite
 - Brown goshawk
 - Brown thornbill
 - Crimson rosella
 - Eastern rosella
 - Eastern rosella

- Eastern spinebill
- Galah
- Golden whistler
- Grey butcherbird
- Grey fantail
- Grey shrike-thrush
- Grey teal
- Laughing kookaburra
- Magpie-lark
- Musk lorikeet
- Nankeen kestrel
- Noisy miner

- Olive-backed oriole
- Peregrine falcon
- Pied currawong
- Rainbow lorikeet
- Red wattlebird
- Spotted pardalote
- Straw-necked Ibis
- Striated pardalote
- Striated thornbill
- Sulphur-crested cockatoo
- Superb fairywren
- Unidentified raven

- Unknown cockatoo
- Unknown fairy-wen
- Wedge-tailed eagle
- Weebill
- Welcome swallow
- White-browed scrubwren
- White-browed woodswallow
- White-naped honeyeater
- White-throated treecreeper
- Yellow thornbill
- Yellow-faced honeyeater
- Yellow-rumped thornbill

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - B5
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



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- Legend**
- RTS Project Site
 - RTS Indicative Development Footprint - Public Road Upgrades
 - Roads
 - Drainage Line
 - Water Body

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - C1
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



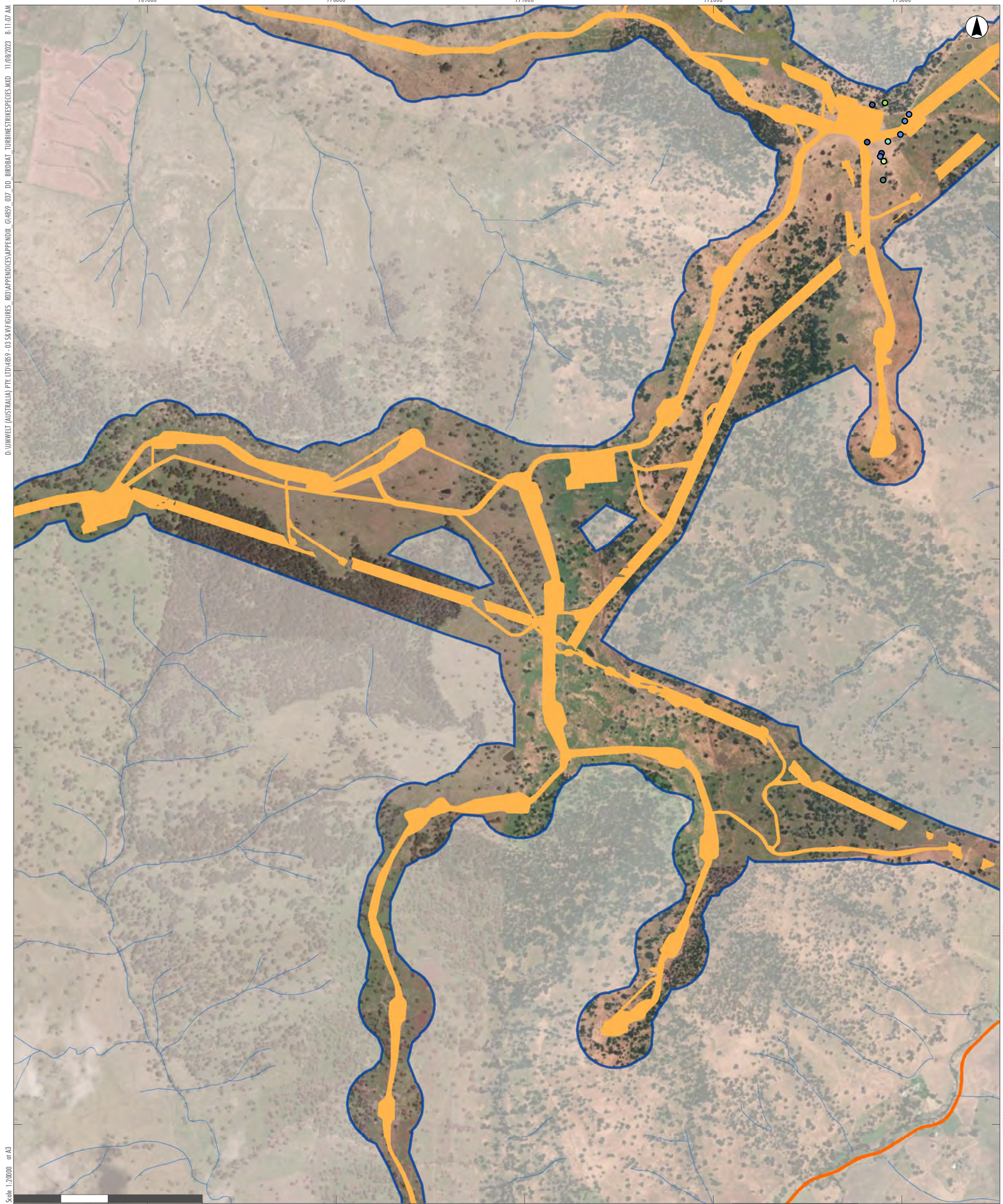
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- Legend**
- RTS Project Site
 - RTS Development Corridor – Wind Farm
 - RTS Indicative Development Footprint – Wind Farm
 - RTS Indicative Development Footprint – Public Road Upgrades
 - Roads
 - Drainage Line
 - Water Body

- Umwelt and NGH Records**
- Australian raven
 - Magpie-lark
 - Australian magpie
 - Brown falcon
 - Wedge-tailed eagle

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - C2
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



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GDA2020 MGA Zone 55

Legend

- █ RTS Project Site
- RTS Development Corridor – Wind Farm
- RTS Indicative Development Footprint – Wind Farm
- RTS Indicative Development Footprint – Public Road Upgrades
- Roads
- Drainage Line

Umwelt and NGH Records

- Australian magpie
- Australian raven
- Eastern rosella
- Pied currawong
- Red wattlebird
- Spotted pardalote

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - C3

**Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species**



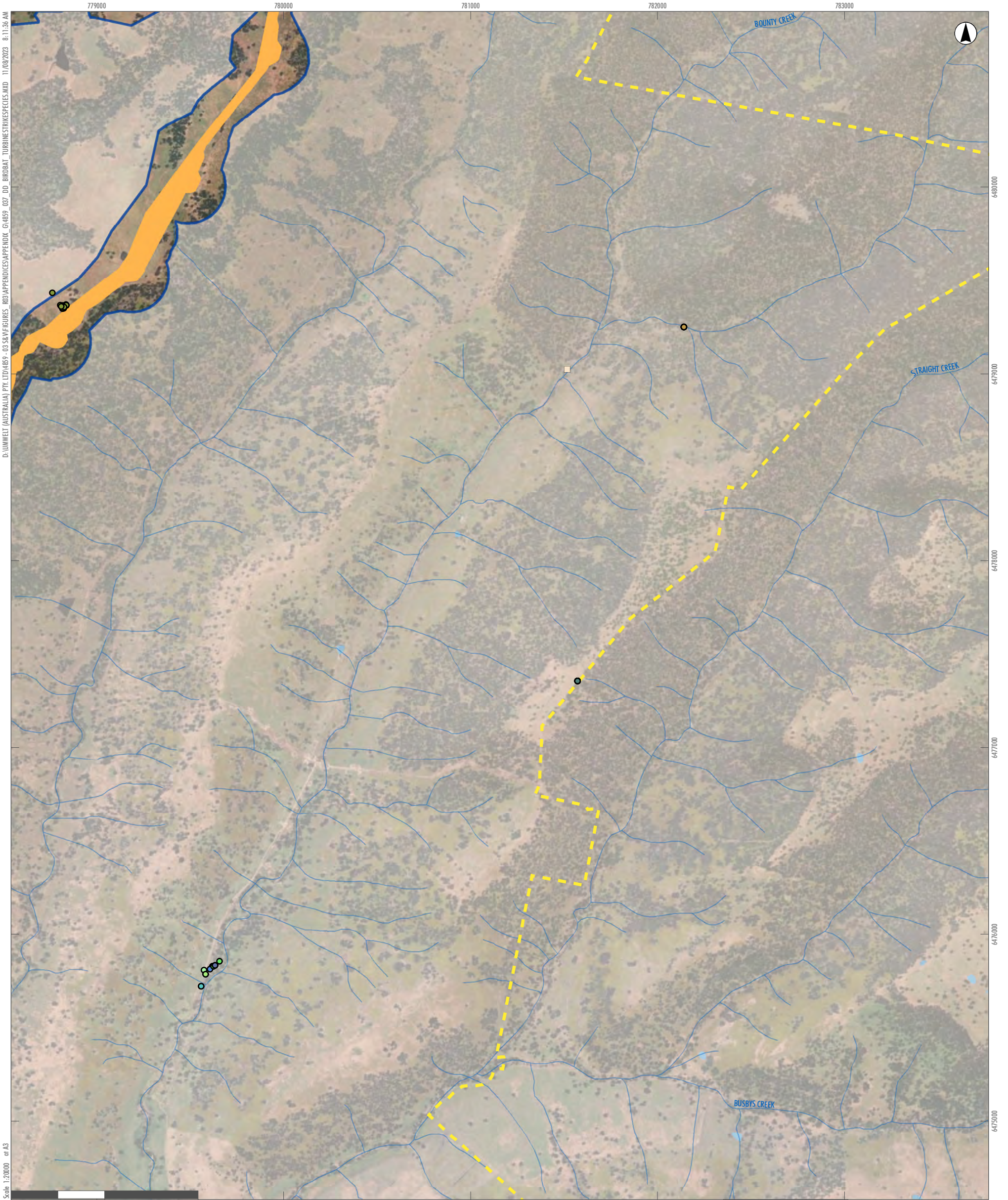
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- Legend**
- RTS Project Site
 - ▬ RTS Development Corridor – Wind Farm
 - ▬ RTS Indicative Development Footprint – Wind Farm
 - ▬ RTS Indicative Development Footprint – Public Road Upgrades
 - ▬ Roads
 - ▬ Drainage Line
 - ▬ Water Body
- Umwelt and NGH Records**
- Eastern rosella
 - Galah
 - Australian wood duck
 - Crimson rosella
 - Grey-headed flying-fox
 - Large bent-winged bat
 - Magpie-lark
 - Striated pardalote
 - Sulphur-crested cockatoo

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - C4
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



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Scale: 1:20000 at A3

GDA2020 MGA Zone 55

- Legend**
- - - RTS Project Site
 - RTS Development Corridor – Wind Farm
 - RTS Indicative Development Footprint – Wind Farm
 - Drainage Line
 - Water Body
 - NSW Bionet Atlas TS Records**
 - Dusky Woodswallow

- Umwelt and NGH Records**
- | | | |
|--|--|---|
| ● Australian raven | ● King parrot | ● Spotted pardalote |
| ● Brown falcon | ● Laughing kookaburra | ● Striated pardalote |
| ● Common bronzewing | ● Little raven | ● Striated thornbill |
| ● Crimson rosella | ● Musk lorikeet | ● Superb fairywren |
| ● Easter rosella | ● Nankeen kestrel | ● Varied sittella |
| ● Galah | ● Noisy friarbird | ● Wedge-tailed eagle |
| ● Grey butcherbird | ● Noisy miner | ● White-throated treecreeper |
| ● Grey goshawk | ● Olive-backed oriole | ● White-winged chough |
| | ● Pied currawong | ● Yellow-faced honeyeater |

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

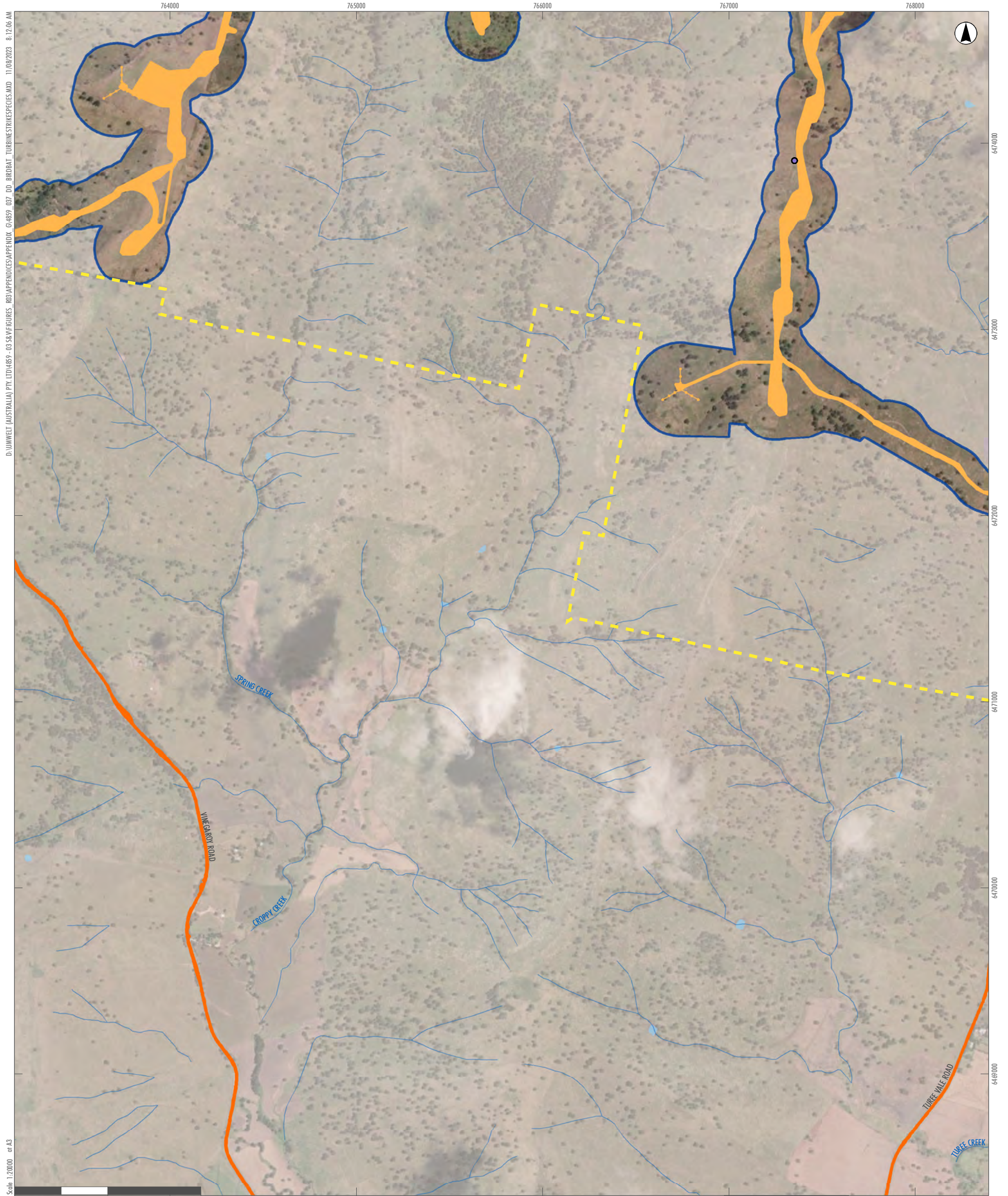
APPENDIX 8.1 - C5
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



- Legend**
- RTS Project Site
 - RTS Development Corridor - Wind Farm
 - RTS Indicative Development Footprint - Wind Farm
 - RTS Indicative Development Footprint - Public Road Upgrades
 - Roads
 - Drainage Line
 - Water Body

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - D1
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



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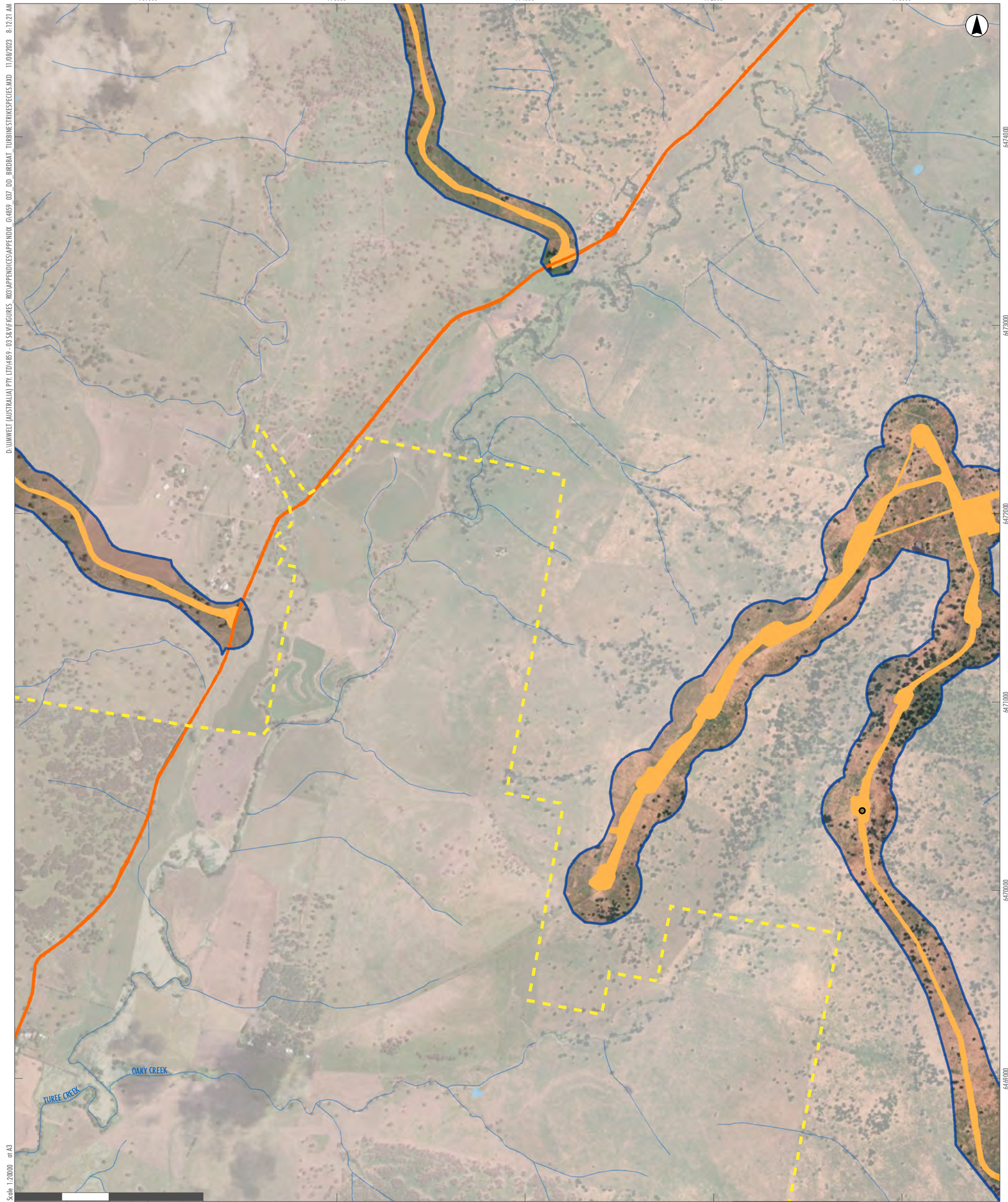
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- Legend**
- RTS Project Site
 - RTS Development Corridor – Wind Farm
 - RTS Indicative Development Footprint – Wind Farm
 - RTS Indicative Development Footprint – Public Road Upgrades
 - Roads
 - Drainage Line
 - Water Body

- Umwelt and NGH Records**
- Australian raven
 - Galah
 - Brown falcon
 - Crimson rosella
 - Easter rosella
 - Galah
 - Grey butcherbird
 - Noisy miner
 - Striated pardalote
 - Sulphur-crested cockatoo
 - Wedge-tailed eagle

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - D2
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



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 Scale: 1:20000 at A3

- Legend**
- ▭ RTS Project Site
 - ▭ RTS Development Corridor – Wind Farm
 - ▭ RTS Indicative Development Footprint – Wind Farm
 - ▭ RTS Indicative Development Footprint – Public Road Upgrades
 - ▭ Roads
 - ▭ Drainage Line
 - ▭ Water Body

- Umwelt and NGH Records**
- Eastern rosella
 - Rainbow lorikeet
 - Crimson rosella
 - Pied butcherbird
 - Red wattlebird

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - D3
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



D:\UMWELT (AUSTRALIA) PTY LTD\4859_03_58\FIGURES_R03\APPENDICES\APPENDIX_GA4859_037_DD_BIRDBAT_TURBINESTRIKESPECIES.MXD 11/08/2023 08:12:39 AM

Scale: 1:20000 at A3

GDA2020 MGA Zone 55

Legend

- RTS Project Site
- RTS Development Corridor – Wind Farm
- RTS Indicative Development Footprint – Wind Farm
- RTS Indicative Development Footprint – Public Road Upgrades
- Roads
- Drainage Line
- Water Body

Umwelt and NGH Records

- | | | |
|---|--|---|
| Australian magpie | Eastern rosella | Red wattlebird |
| Australian raven | Galah | Starling |
| Brown falcon | Large bent-winged bat | Striated pardalote |
| Corben's long-eared bat | Musk lorikeet | Sulphur-crested cockatoo |
| Crimson rosella | Noisy friarbird | Wedge-tailed eagle |
| | Noisy miner | Yellow-rumped thornbill |

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - D4
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



D:\UMWELT (AUSTRALIA) PTY LTD\4859_03_58\FIGURES_R03\APPENDICES\APPENDIX_GA4859_037_DD_BIRD\BAT_TURBINE\STRIKESPECIES.MXD 11/08/2023 8:12:59 AM

Scale: 1:20000 at A3

GDA2020 MGA Zone 55

- Legend**
- RTS Project Site
 - RTS Development Corridor – Wind Farm
 - RTS Indicative Development Footprint – Wind Farm
 - RTS Indicative Development Footprint – Public Road Upgrades
 - Roads
 - Drainage Line
 - Water Body

- Umwelt and NGH Records**
- Australian magpie
 - Australian raven
 - Australian wood duck
 - Crimson rosella
 - Easter rosella
 - Eastern rosella
 - Galah
 - Grey butcherbird
 - King parrot
 - Large-eared pied bat
 - Laughing kookaburra
 - Musk lorikeet
 - Noisy friarbird
 - Noisy miner
 - Olive-backed oriole
 - Pacific black duck
 - Pied butcherbird
 - Pied currawong
 - Red-rumped parrot
 - Sulphur-crested cockatoo
 - Wedge-tailed eagle
 - White-winged triller

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - D5
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



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Scale: 1:20000 at A3

GDA2020 MGA Zone 55

Legend

- RTS Project Site
- Roads
- Drainage Line
- Water Body
- NSW Bionet Atlas TS Records**
- Dusky Woodswallow

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - D6
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



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Scale: 1:20000 at A3

- Legend**
- RTS Indicative Development Footprint – Public Road Upgrades
 - Roads
 - Drainage Line
 - Water Body

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - E2
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



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Scale: 1:20000 at A3

GDA2020 MGA Zone 55

- Legend**
- RTS Project Site
 - RTS Development Corridor – Wind Farm
 - RTS Indicative Development Footprint – Wind Farm
 - RTS Indicative Development Footprint – Public Road Upgrades
 - Roads
 - Drainage Line
 - Water Body

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - E3
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



D:\UMWELT (AUSTRALIA) PTY LTD\4859_03_58\FIGURES_R03\APPENDICES\APPENDIX_GA4859_037_DD_BIRDBAT_TURBINESTRIKESPECIES.MXD, 11/08/2023, 8:04:14 AM

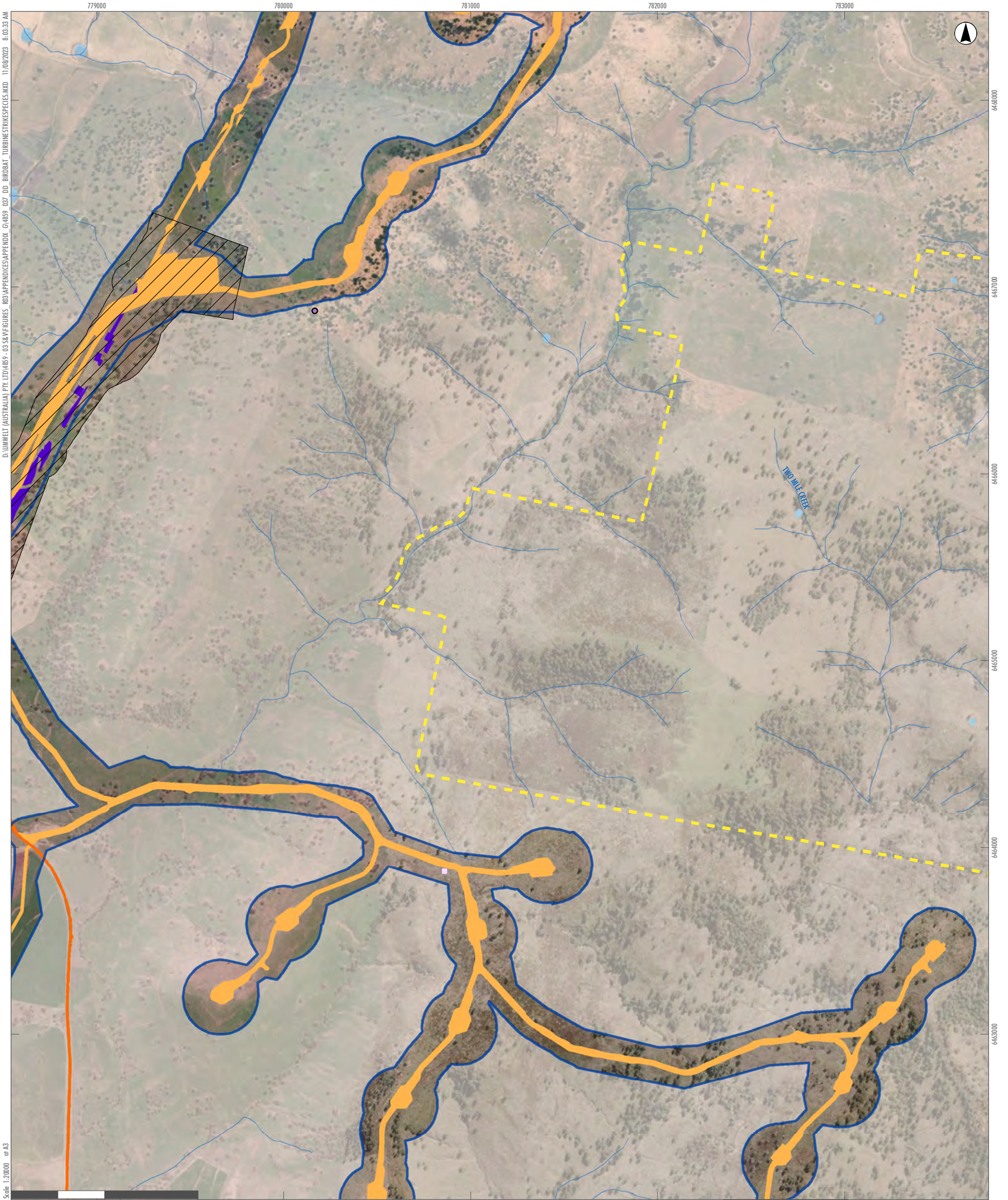
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GDA2020 MGA Zone 55

- Legend**
- RTS Project Site
 - RTS Development Corridor – Wind Farm
 - RTS Development Corridor – External Transmission Line
 - RTS Indicative Development Footprint – Wind Farm
 - RTS Indicative Development Footprint – External Transmission Line
 - RTS Indicative Development Footprint – Public Road Upgrades
 - Roads
 - Drainage Line
 - Water Body
-
- Umwelt and NGH Records**
- Eastern cave bat
 - Large bent-winged bat
 - Nankeen kestrel
 - Wedge-tailed eagle

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - E4
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



D:\UMWELT (AUSTRALIA) PTY LTD\4859_03_58\FIGURES_R03\APPENDICES\APPENDIX_GA4859_03_DD_BROBAT_TURBINESTRIPESPECIES.MXD, 11/08/2023, 8:03:35 AM

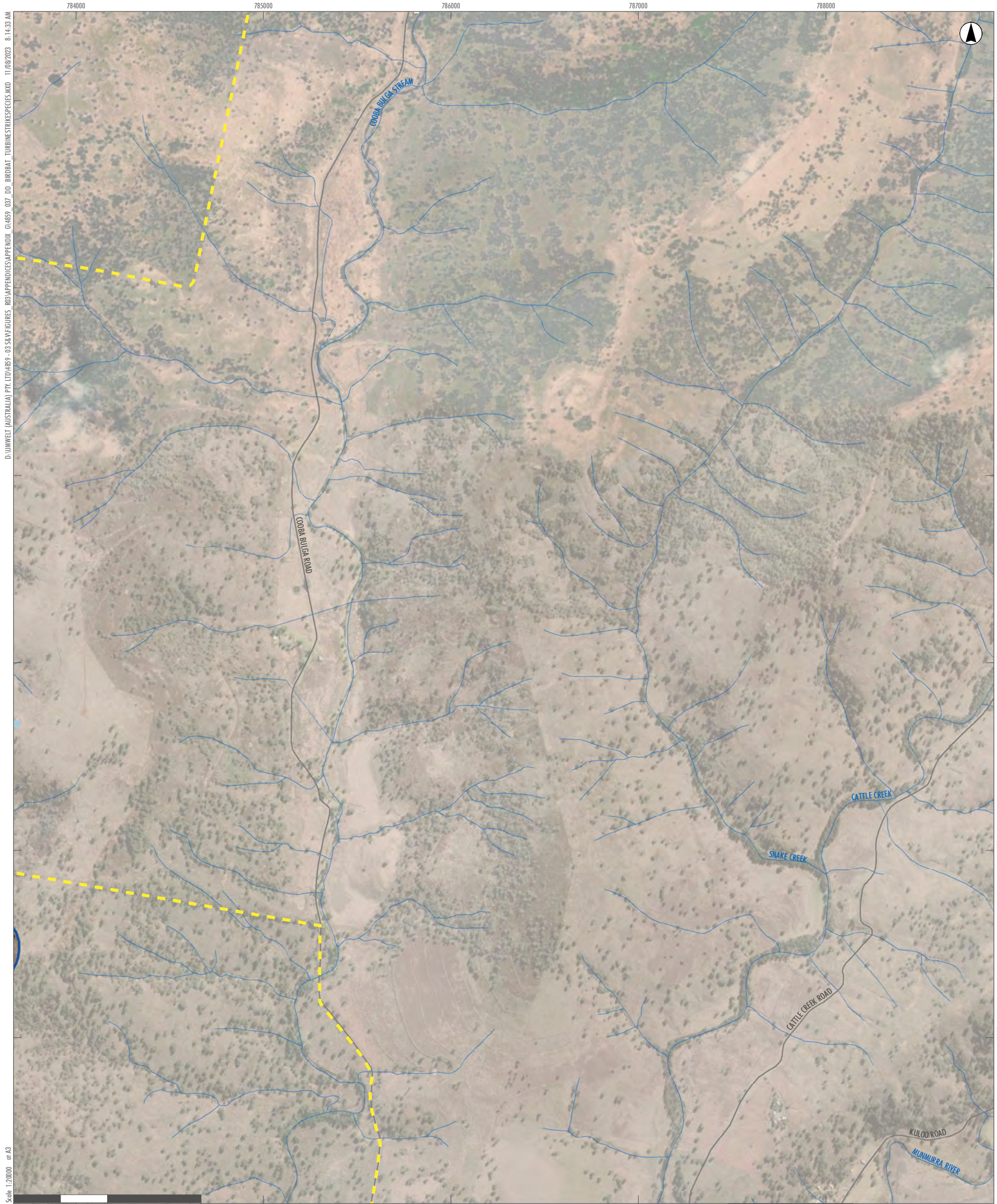
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- Legend**
- RTS Project Site
 - RTS Development Corridor – Wind Farm
 - RTS Development Corridor – External Transmission Line
 - RTS Indicative Development Footprint – Wind Farm
 - RTS Indicative Development Footprint – External Transmission Line
 - RTS Indicative Development Footprint – Public Road Upgrades
 - Roads
 - Drainage Line
 - Water Body

- NSW Bionet Atlas TS Records** **Umwelt and NGH Records**
- White-throated Needletail
 - Large bent-winged bat

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - E5
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



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Scale: 1:20000 at A3

GDA2020 MGA Zone 55

- Legend**
- RTS Project Site
 - RTS Development Corridor – Wind Farm
 - Roads
 - Drainage Line
 - Water Body
 - NSW Bionet Atlas TS Records**
 - Dusky Woodswallow

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - E6
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



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Scale: 1:20,000 at A3

GDA2020 MGA Zone 55

- Legend**
- RTS Indicative Development Footprint – Public Road Upgrades
 - Roads
 - Drainage Line
 - Water Body
 - NSW Bionet Atlas TS Records**
 - Brown Treecreeper (eastern subspecies)

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - F3
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



Scale: 1:20000 at A3

GDA2020 MGA Zone 55

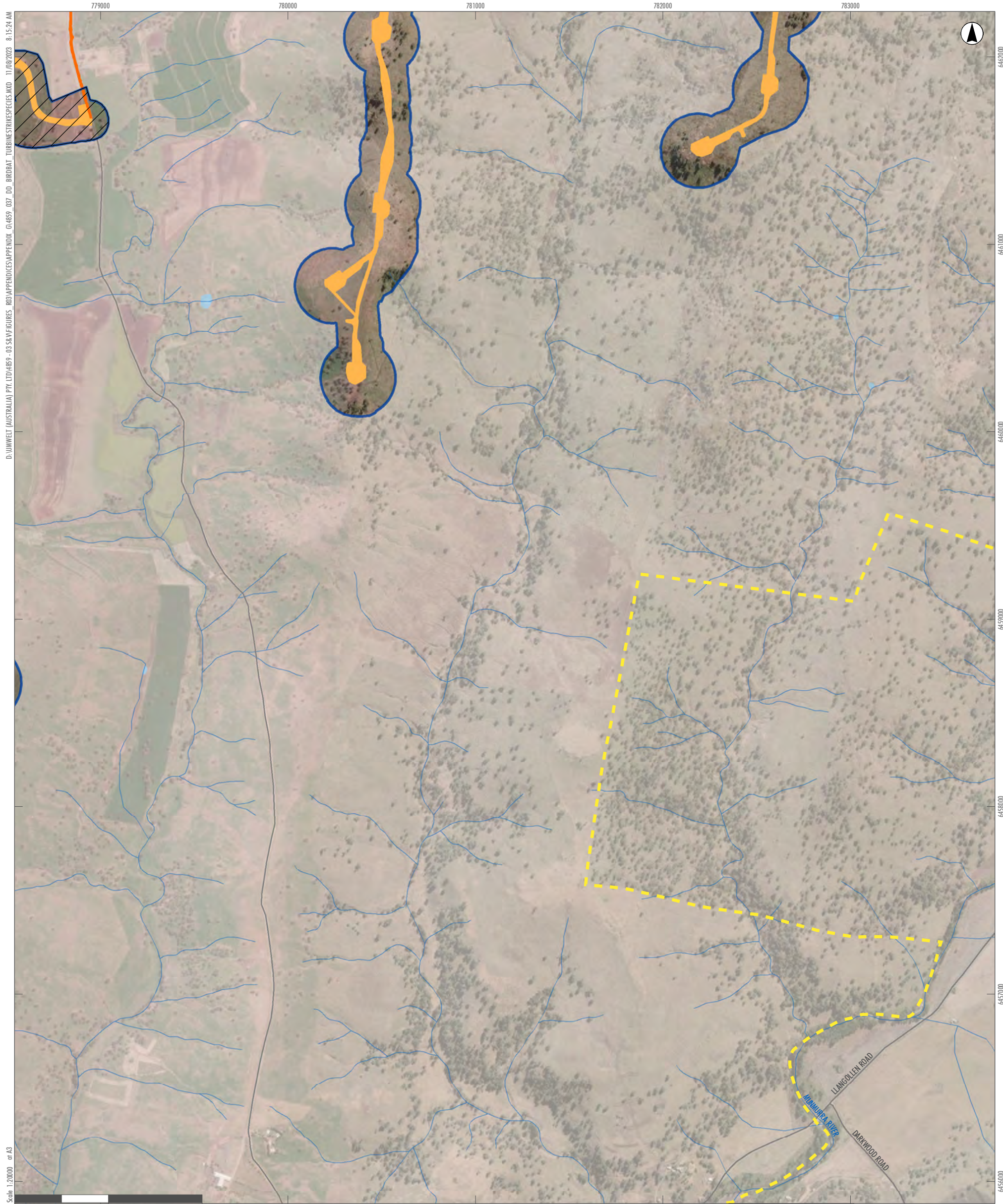
- Legend**
- RTS Project Site
 - RTS Development Corridor – Wind Farm
 - RTS Development Corridor – External Transmission Line
 - RTS Indicative Development Footprint – Wind Farm
 - RTS Indicative Development Footprint – External Transmission Line
 - Roads
 - Drainage Line
 - Water Body

- NSW Bionet Atlas TS Records**
- Brown Treecreeper (eastern subspecies)
 - Speckled Warbler

- Umwelt and NGH Records**
- Eastern cave bat
 - Large bent-winged bat
 - Nankeen kestrel

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - F4
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



- Legend**
- RTS Project Site
 - RTS Development Corridor – Wind Farm
 - RTS Development Corridor – External Transmission Line
 - RTS Indicative Development Footprint – Wind Farm
 - RTS Indicative Development Footprint – Public Road Upgrades
 - Roads
 - Drainage Line
 - Water Body

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - F5
**Liverpool Range Wind Farm
 Bird and Bat Turbine
 Strike Species**



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Scale 1:20000 at A3

GDA2020 MGA Zone 55

- Legend**
- RTS Project Site
 - Roads
 - Drainage Line
 - Water Body

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - F6
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



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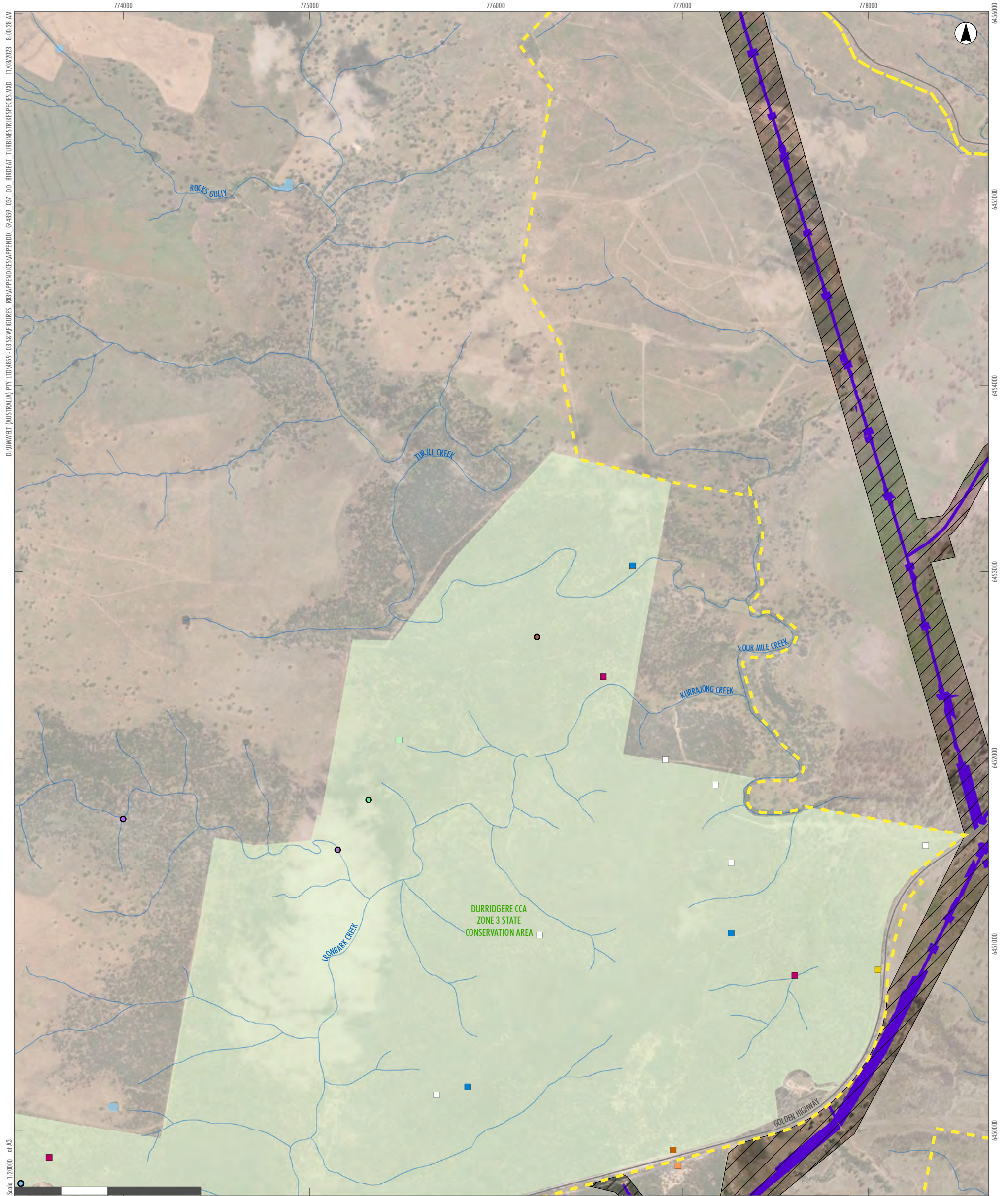
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GDA2020 MGA Zone 55

- Legend**
- RTS Indicative Development Footprint – Public Road Upgrades
 - Roads
 - Drainage Line
 - Water Body
 - National Parks (NPWS Estate)
- Umwelt and NGH Records**
- Brown treecreeper (eastern subspecies)
 - Large bent-winged bat
 - Large-eared pied bat

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - G3
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



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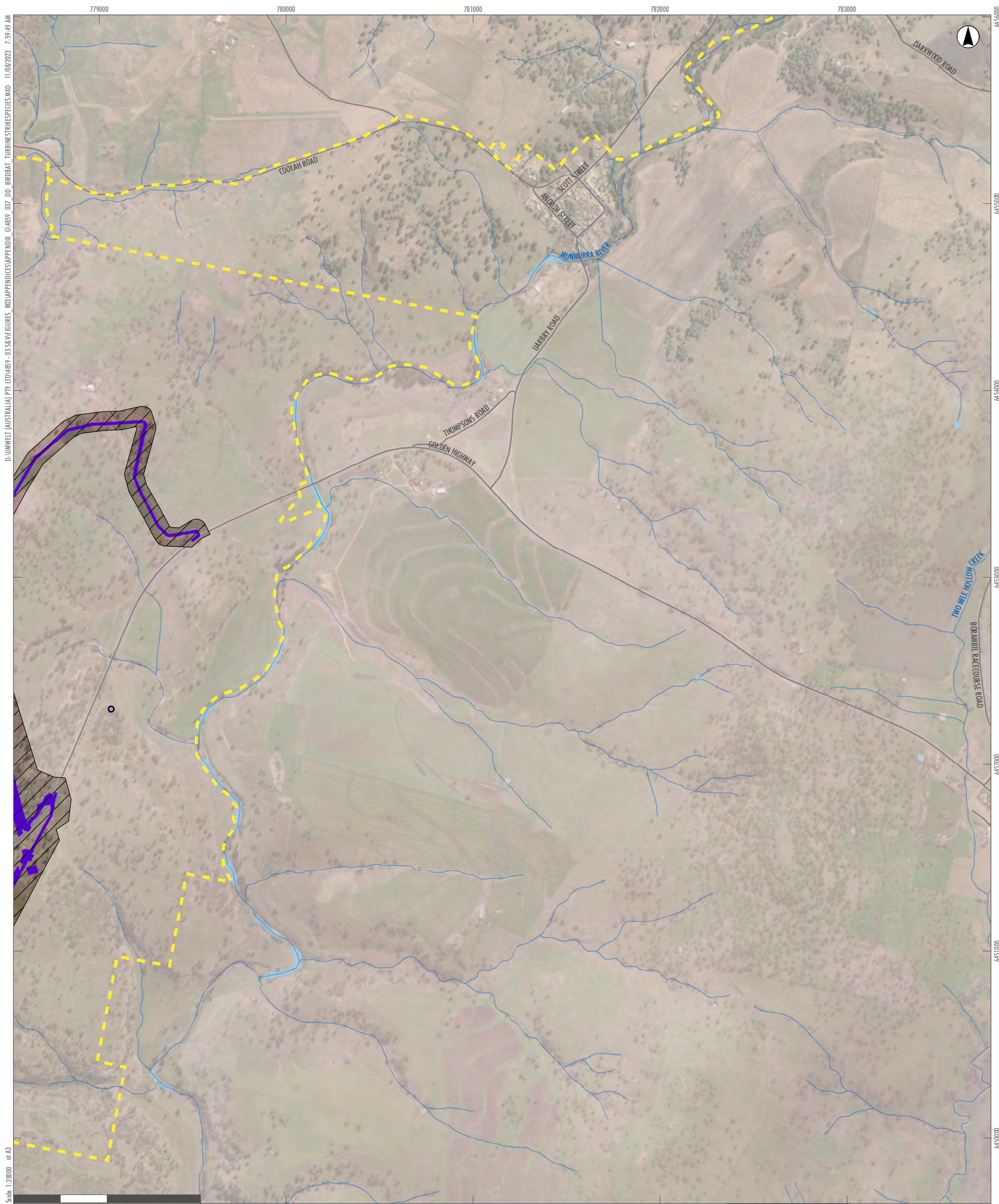
- Legend**
- RTS Project Site
 - RTS Development Corridor – External Transmission Line
 - RTS Indicative Development Footprint – External Transmission Line
 - Roads
 - Drainage Line
 - Water Body
 - National Parks (NPWS Estate)

- NSW Bionet Atlas TS Records**
- Brown Treecreeper (eastern subspecies)
 - Large Bent-winged Bat
 - Little Eagle
 - Scarlet Robin
 - Speckled Warbler
 - Varied Sittella
 - White-throated Needletail
 - Yellow-bellied Shearwater-bat

- Umwelt and NGH Records**
- Brown treecreeper (eastern subspecies)
 - Diamond firetail
 - Grey-crowned babbler
 - Large bent-winged bat
 - Varied sittella

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - G4
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



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Scale: 1:20,000 at A3

GDA2020 MGA Zone 55

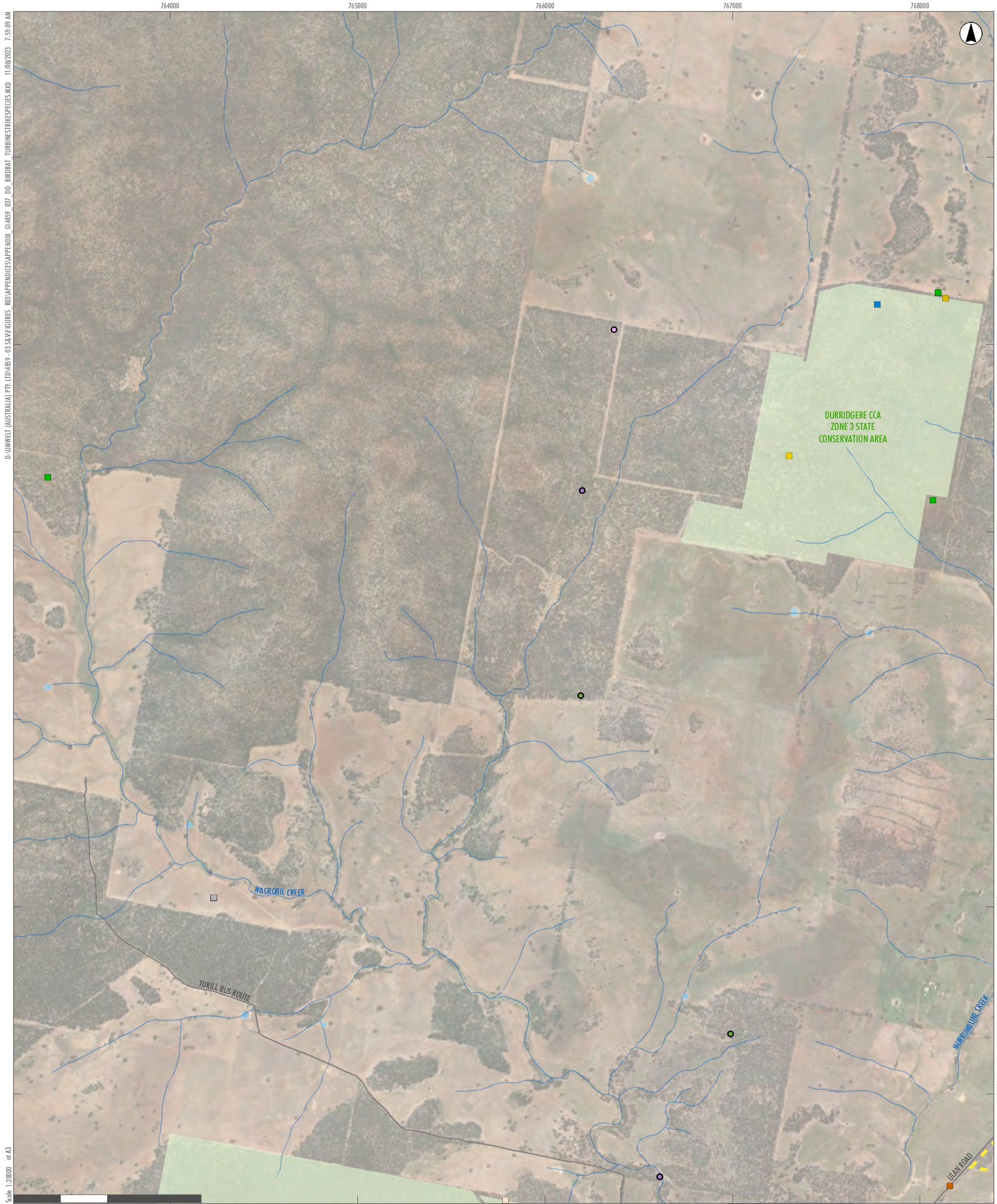
Legend

- RTS Project Site
 - RTS Development Corridor – External Transmission Line
 - RTS Indicative Development Footprint – External Transmission Line
 - Roads
 - Drainage Line
 - Water Body
-
- Umwelt and NGH Records**
 - Black-chinned honeyeater
 - Mistletoebird
 - Unidentified raptor

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
	E2	E3	E4	E5	E6
		F3	F4	F5	F6
		G3	G4	G5	
	H2	H3	H4		
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - G5

**Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species**



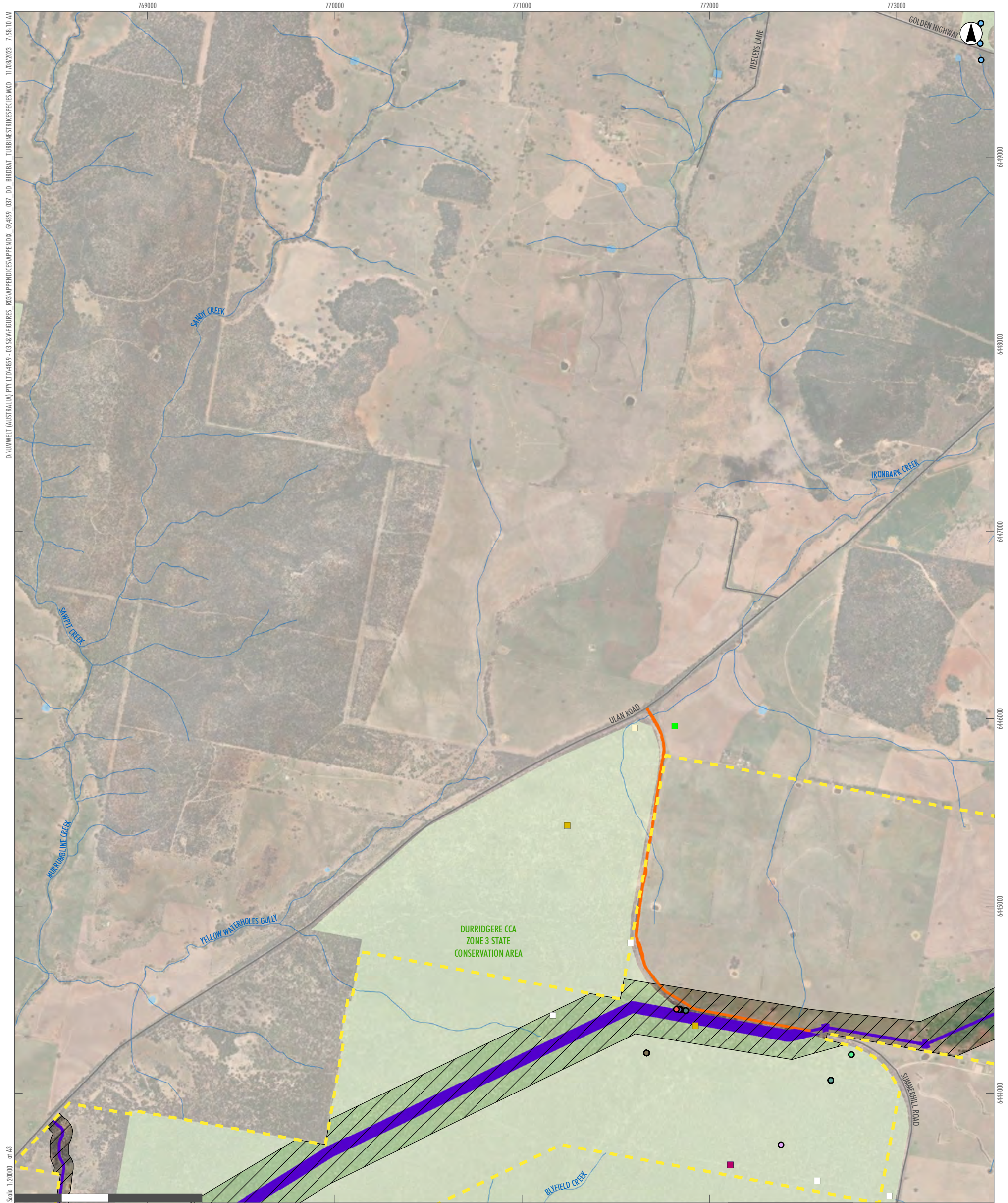
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Scale: 1:20000 at A3

- Legend**
- RTS Project Site
 - Roads
 - Drainage Line
 - Water Body
 - National Parks (NPWS Estate)
- NSW Bionet Atlas TS Records**
- Dusky Woodswallow
 - Grey-crowned Babbler (eastern subspecies)
 - Little Eagle
 - Powerful Owl
 - Scarlet Robin
 - South-eastern Glossy Black-Cockatoo
 - Varied Sittella
- Umwelt and NGH Records**
- Brown treecreeper (eastern subspecies)
 - Glossy black-cockatoo
 - Large bent-winged bat
 - Large-eared pied bat
 - Speckled warbler

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - H2
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



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Scale: 1:20000 at A3

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---	--	--	--	--	--	--	--

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - H3

Liverpool Range Wind Farm

Bird and Bat Turbine

Strike Species



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Scale: 1:20000 at A3

GDA2020 MGA Zone 55

Legend

- RTS Project Site
- RTS Development Corridor – External Transmission Line
- RTS Indicative Development Footprint – External Transmission Line
- Roads
- Drainage Line
- Water Body
- National Parks (NPWS Estate)

NSW Bionet Atlas TS Records

- Corben's Long-eared Bat
- Diamond Firetail
- South-eastern Glossy Black-Cockatoo
- Speckled Warbler
- White-throated Needletail

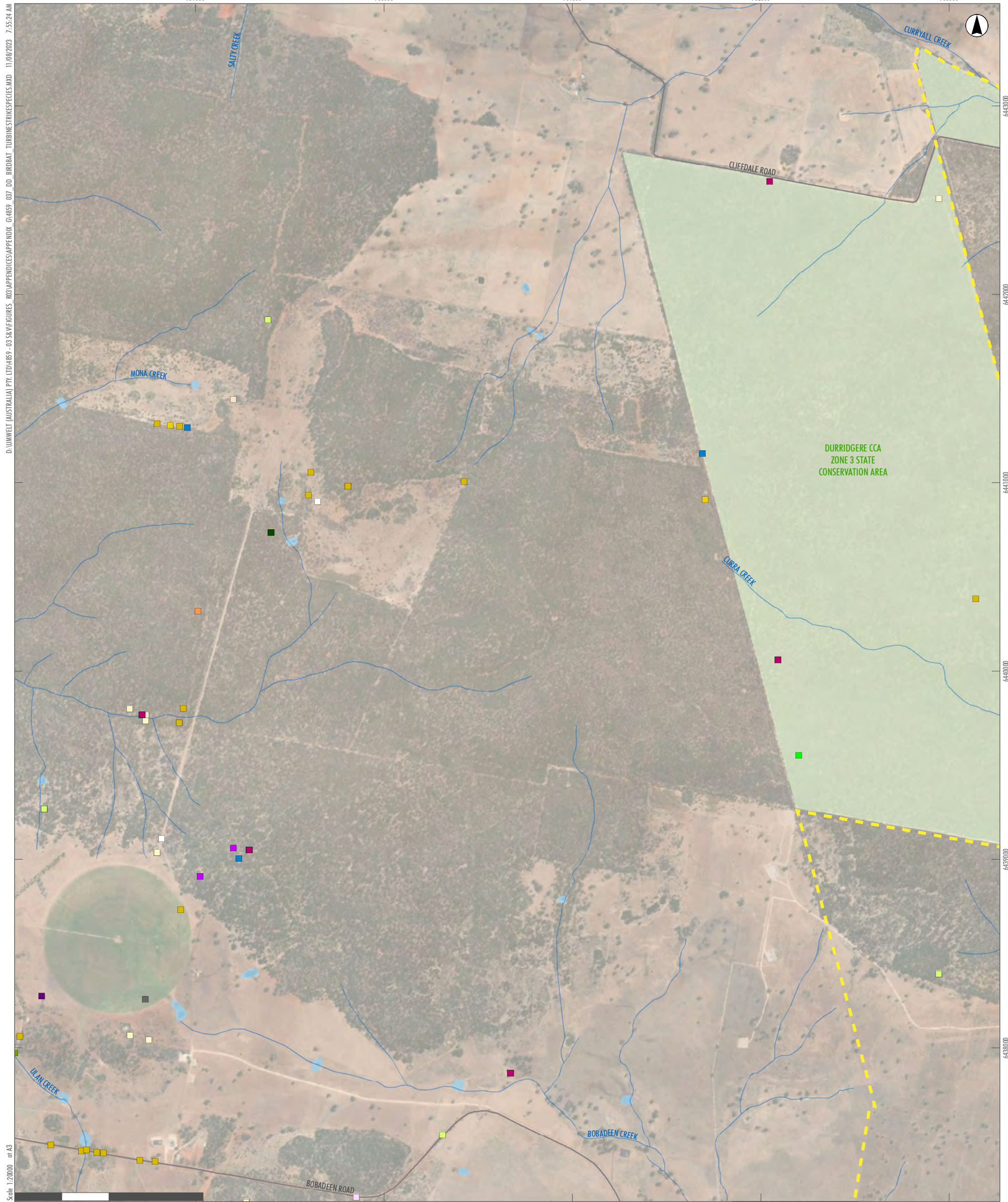
Umwelt and NGH Records

- Brown treecreeper (eastern subspecies)
- Corben's long-eared bat
- Eastern barn owl
- Eastern cave bat
- Glossy black-cockatoo
- Kookaburra
- Large bent-winged bat

- Large-eared pied bat
- Noisy friarbird
- Noisy miner
- Olive-backed oriole
- Sacred kingfisher
- Striated pardalote
- Sulphur-crested cockatoo
- White-throated gerygone
- Willie wagtail

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - H4
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



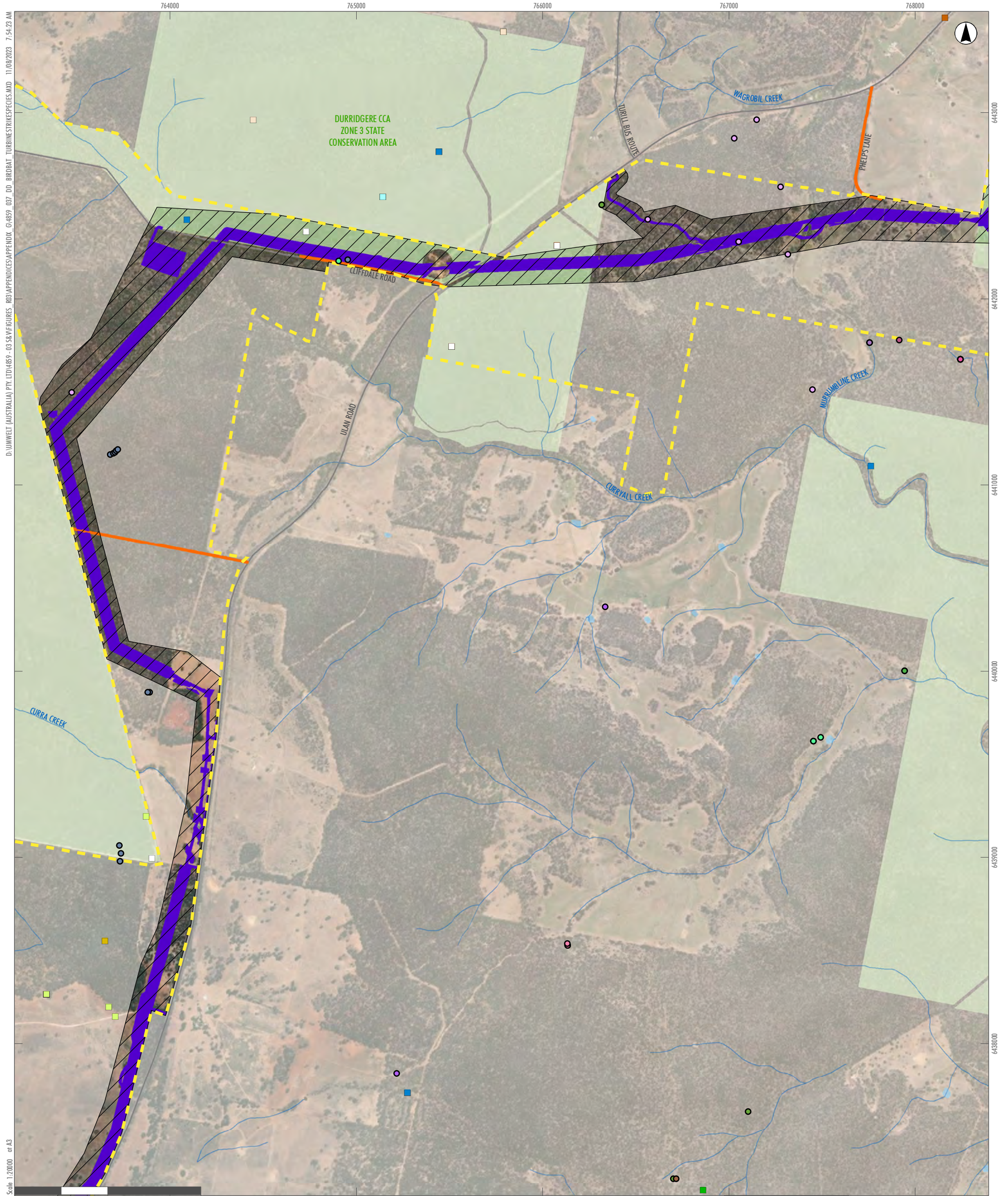
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- Legend**
- RTS Project Site
 - Roads
 - Drainage Line
 - Water Body
 - National Parks (NPWS Estate)
- NSW Bionet Atlas TS Records**
- Barking Owl
 - Brown Treecreeper (eastern subspecies)
 - Diamond Firetail
 - Dusky Woodswallow
 - Flame Robin
 - Gang-gang Cockatoo
 - Grey-crowned Babbler (eastern subspecies)
 - Large Bent-winged Bat
 - Large-eared Pied Bat
 - Latham's Snipe
 - Little Lorikeet
 - Painted Honeyeater
 - Scarlet Robin
 - Speckled Warbler
 - Spotted Harrier
 - Turquoise Parrot
 - Varied Sittella
 - White-throated Needletail

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - I1

**Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species**

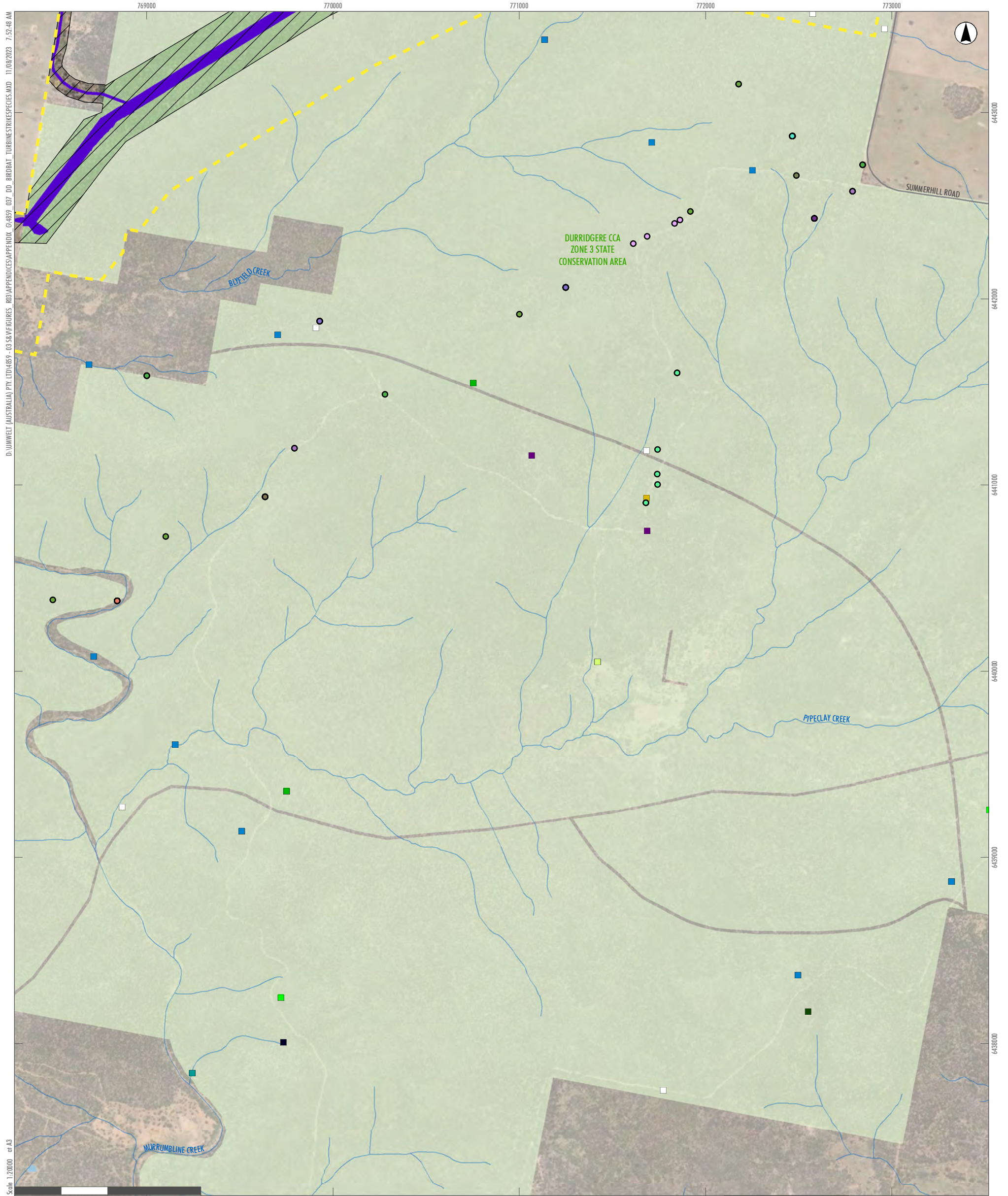


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Legend <ul style="list-style-type: none"> RTS Project Site RTS Development Corridor – External Transmission Line RTS Indicative Development Footprint – External Transmission Line RTS Indicative Development Footprint – Public Road Upgrades Roads Drainage Line Water Body National Parks (NPWS Estate) 		NSW Bionet Atlas TS Records <ul style="list-style-type: none"> Black Falcon Brown Treecreeper (eastern subspecies) Corben's Long-eared Bat Diamond Firetail Dusky Woodswallow Flame Robin Grey-crowned Babbler (eastern subspecies) Little Eagle Painted Honeyeater Powerful Owl Speckled Warbler Varied Sittella 		Umwelt and NGH Records <ul style="list-style-type: none"> Corben's long-eared bat Diamond firetail Glossy black-cockatoo Glossy black-cockatoo (chewed sheoak cones) Grey-crowned babbler Large bent-winged bat Large-eared pied bat Leaden flycatcher Magpie-lark Noisy friarbird Painted honeyeater Pied currawong Speckled warbler Varied sittella White-throated gerygone White-throated treecreeper White-winged chough Yellow-faced honeyeater 		<table border="1" style="border-collapse: collapse; text-align: center; width: 100px; height: 100px;"> <tr><td>A2</td><td>A3</td><td>A4</td><td>A5</td></tr> <tr><td>B2</td><td>B3</td><td>B4</td><td>B5</td></tr> <tr><td>C1</td><td>C2</td><td>C3</td><td>C4</td><td>C5</td></tr> <tr><td>D1</td><td>D2</td><td>D3</td><td>D4</td><td>D5</td><td>D6</td></tr> <tr><td>E2</td><td>E3</td><td>E4</td><td>E5</td><td>E6</td></tr> <tr><td>F3</td><td>F4</td><td>F5</td><td>F6</td></tr> <tr><td>G3</td><td>G4</td><td>G5</td></tr> <tr><td>H2</td><td>H3</td><td>H4</td></tr> <tr><td>I1</td><td style="background-color: cyan;">I2</td><td>I3</td></tr> <tr><td>J1</td><td>J2</td></tr> <tr><td>K1</td></tr> </table>	A2	A3	A4	A5	B2	B3	B4	B5	C1	C2	C3	C4	C5	D1	D2	D3	D4	D5	D6	E2	E3	E4	E5	E6	F3	F4	F5	F6	G3	G4	G5	H2	H3	H4	I1	I2	I3	J1	J2	K1
A2	A3	A4	A5																																											
B2	B3	B4	B5																																											
C1	C2	C3	C4	C5																																										
D1	D2	D3	D4	D5	D6																																									
E2	E3	E4	E5	E6																																										
F3	F4	F5	F6																																											
G3	G4	G5																																												
H2	H3	H4																																												
I1	I2	I3																																												
J1	J2																																													
K1																																														

APPENDIX 8.1 - 12
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species

Image Source: ESRI Basemap (2022) Data source: NSW DSFI (2022), NSW Bionet Atlas records (2023), (NGH Environmental 2013a, 2013b and 2017)



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Scale: 1:20000 at A3

- Legend**
- RTS Project Site
 - RTS Development Corridor – External Transmission Line
 - RTS Indicative Development Footprint – External Transmission Line
 - Roads
 - Drainage Line
 - Water Body
 - National Parks (NPWS Estate)
 - NSW Bionet Atlas TS Records**
 - Barking Owl
 - Brown Treecreeper (eastern subspecies)
 - Diamond Firetail
 - Eastern Cave Bat
 - Grey-crowned Babbler (eastern subspecies)
 - Large-eared Pied Bat
 - Little Eagle
 - Little Lorikeet
 - Powerful Owl
 - Speckled Warbler
 - Turquoise Parrot
 - Varied Sittella

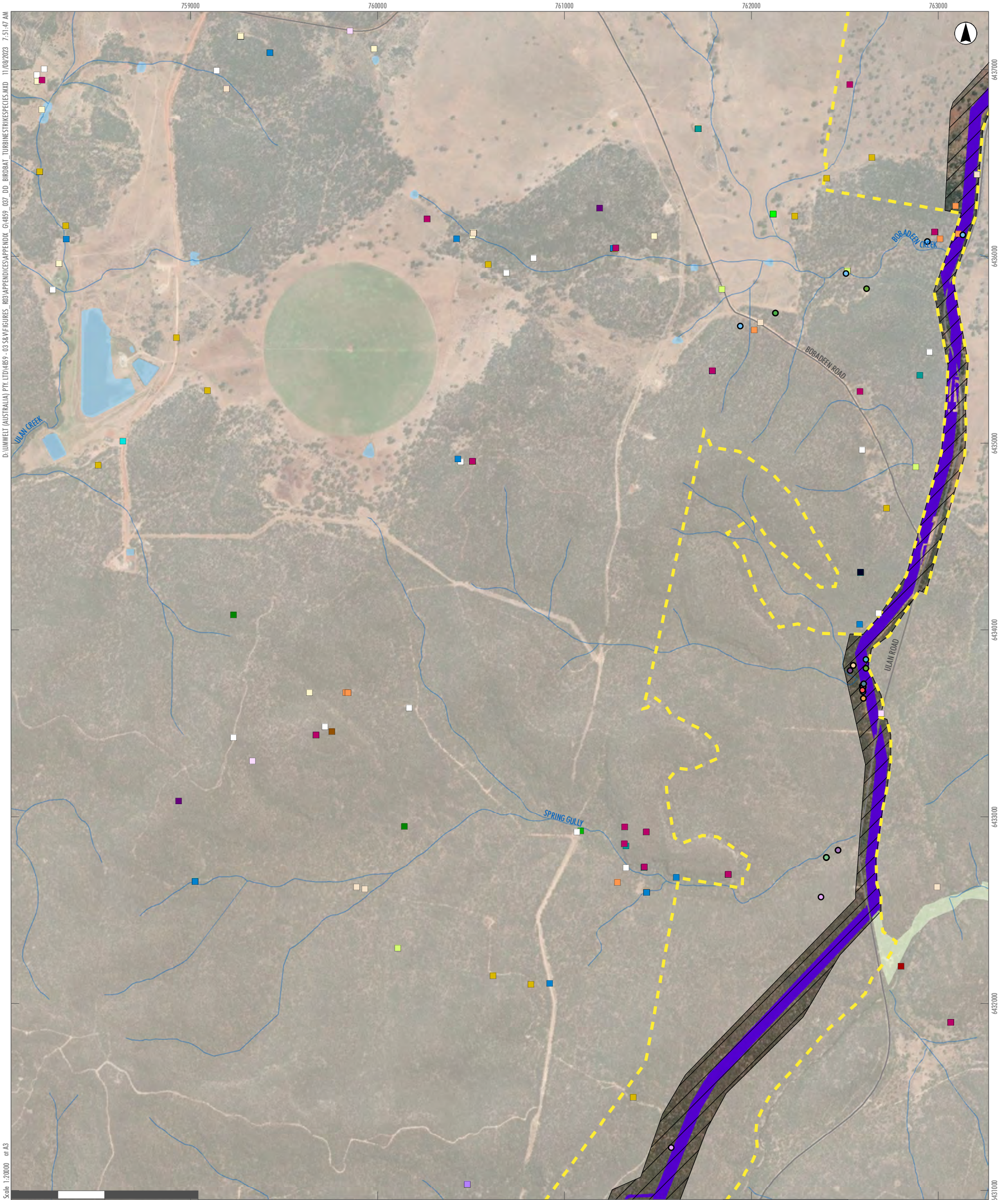
- Umwelt and NGH Records**
- Australian magpie
 - Australian raven
 - Black-faced cuckoo-shrike
 - Brown thornbill
 - Brown treecreeper (eastern subspecies)
 - Carben's long-eared bat
 - Eastern cave bat
 - Eastern spinebill
 - Galah
 - Glossy black-cockatoo
 - Grey butcherbird
 - Grey fantail
 - Grey shrike-thrush

- Grey-crowned babbler
- Harsfield's bronze cuckoo
- Large bent-winged bat
- Large-eared pied bat
- Leaden flycatcher
- Noisy friarbird
- Noisy miner
- Olive-backed oriole
- Pied currawong
- Rufous whistler
- Sacred kingfisher
- Speckled warbler
- Spotted pardalote

- Spotted quail-thrush
- Striated pardalote
- Striated thornbill
- Striped honeyeater
- Sulphur-crested cockatoo
- Superb fairywren
- Varied sittella
- White-eared honeyeater
- White-throated gerygone
- White-throated treecreeper
- White-winged chough
- Yellow-bellied Sheath-tail-bat
- Yellow-faced honeyeater
- Yellow-rumped thornbill

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - I3
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



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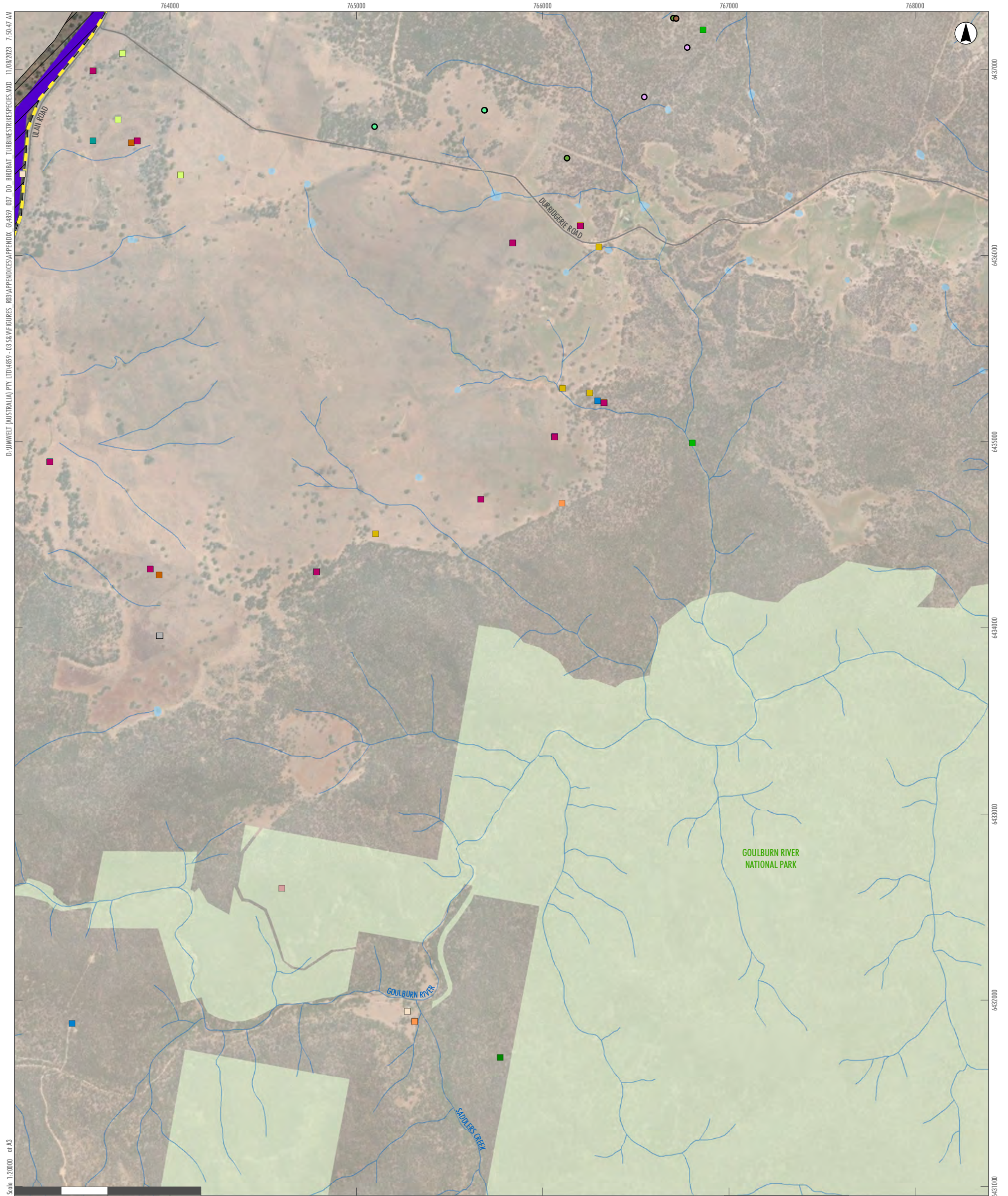
GDA2020 MGA Zone 55

Legend <ul style="list-style-type: none"> RTS Project Site RTS Development Corridor – External Transmission Line RTS Indicative Development Footprint – External Transmission Line Roads Drainage Line Water Body National Parks (NPWS Estate) 		NSW Bionet Atlas TS Records <ul style="list-style-type: none"> Barking Owl Brown Treecreeper (eastern subspecies) Common Sandpiper Diamond Firetail Dusky Woodswallow Eastern Cave Bat 		<ul style="list-style-type: none"> Gang-gang Cockatoo Grey-crowned Babbler (eastern subspecies) Hooded Robin (south-eastern form) Large Bent-winged Bat Large-eared Pied Bat Little Lorikeet Painted Honeyeater Pilotbird Powerful Owl Speckled Warbler Turquoise Parrot Varied Sittella White-bellied Sea-Eagle White-throated Needletail Yellow-bellied Sheath-tail-bat 		Umwelt and NGH Records <ul style="list-style-type: none"> Australian raven Black-faced cuckoo-shrike Brown thornbill Brown treecreeper (eastern subspecies) Brown-headed honeyeater Diamond firetail Eastern yellow robin Fan-tailed cuckoo Glossy black-cockatoo Grey fantail Large bent-winged bat Large-eared pied bat 		<ul style="list-style-type: none"> Powerful owl Red wattlebird Speckled warbler Striated pardalote Striated thornbill Sulphur-crested cockatoo Superb fairywren Unknown passerine Unknown thornbill Welcome swallow White-throated gerygone White-throated treecreeper Yellow-bellied Sheath-tail-bat Yellow-faced honeyeater 	
--	--	--	--	---	--	---	--	---	--

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - J1
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species

Image Source: ESRI Basemap (2022) Data source: NSW DSFI (2022), NSW Bionet Atlas records (2023), (NGH Environmental 2013a, 2013b and 2017)



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Scale: 1:20000 at A3

GDA2020 MGA Zone 55

- Legend**
- RTS Project Site
 - RTS Development Corridor – External Transmission Line
 - RTS Indicative Development Footprint – External Transmission Line
 - Roads
 - Drainage Line
 - Water Body
 - National Parks (NPWS Estate)
- NSW Bionet Atlas TS Records**
- Brown Treecreeper (eastern subspecies)
 - Diamond Firetail
 - Dusky Woodswallow
 - Gang-gang Cockatoo
 - Grey-crowned Babbler (eastern subspecies)
 - Hooded Robin (south-eastern form)
 - Large Bent-winged Bat
 - Large-eared Pied Bat
 - Little Eagle
 - Little Lorikeet
 - Malleefowl
 - Painted Honeyeater
 - Powerful Owl
 - South-eastern Glossy Black-Cockatoo
 - Speckled Warbler
 - Varied Sittella
 - Yellow-bellied Sheath-tail-bat
- Umwelt and NGH Records**
- Glossy black-cockatoo
 - Grey-crowned babbler
 - Speckled warbler
 - Varied sittella

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - J2
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



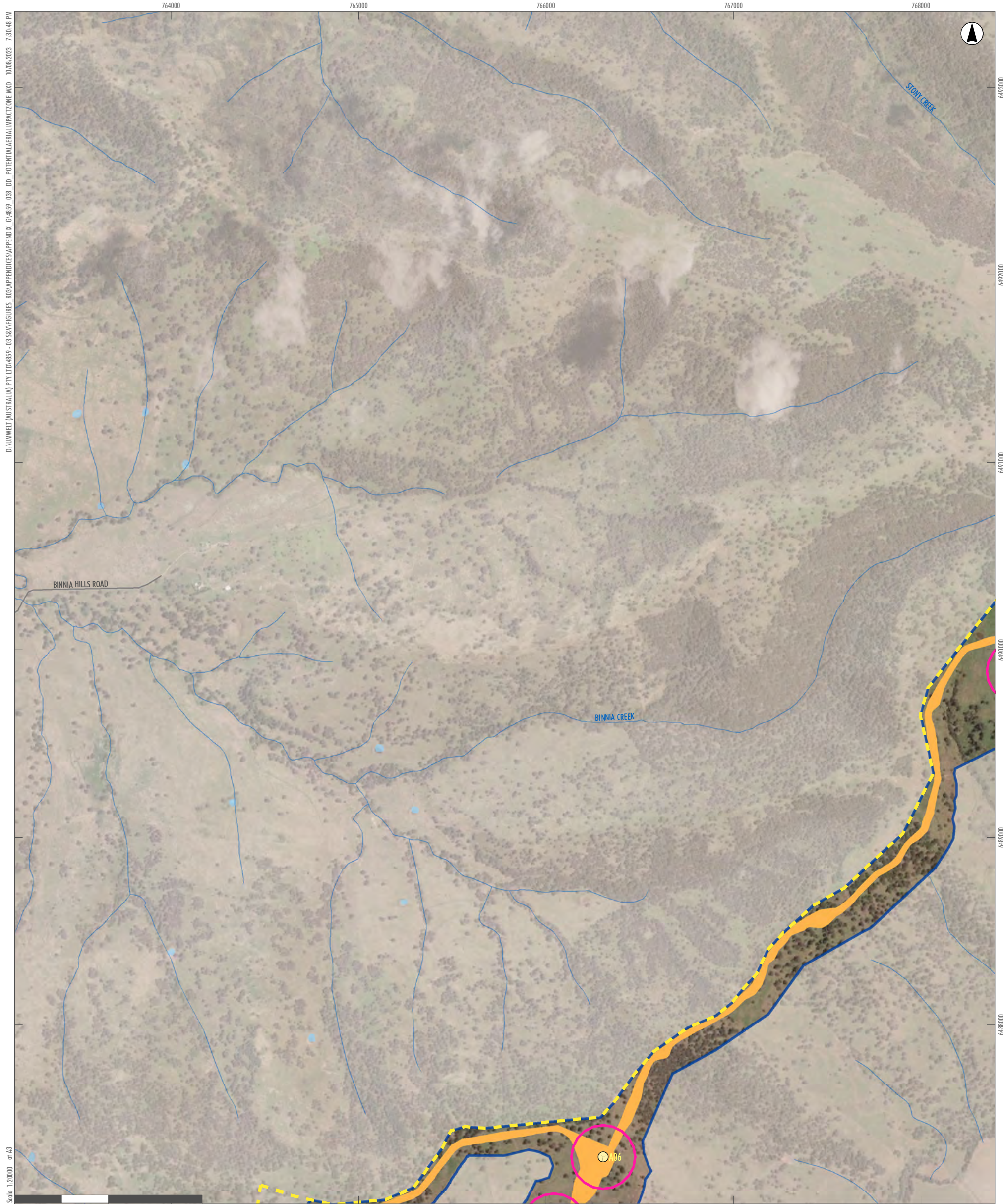
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 Scale: 1:20000 at A3

- Legend**
- RTS Project Site
 - RTS Development Corridor – External Transmission Line
 - RTS Indicative Development Footprint – External Transmission Line
 - Roads
 - Drainage Line
 - Water Body
- NSW Bionet Atlas TS Records**
- Brown Treecreeper (eastern subspecies)
 - Caspian Tern
 - Common Sandpiper
 - Dusky Woodswallow
 - Eastern Cave Bat
 - Flame Robin
 - Grey-crowned Babbler (eastern subspecies)
 - Large Bent-winged Bat
 - Large-eared Pied Bat
 - Little Eagle
 - Little Lorikeet
 - Painted Honeyeater
 - Powerful Owl
 - Speckled Warbler
 - Spotted Harrier
 - Turquoise Parrot
 - Varied Sittella
 - White-bellied Sea-Eagle

- Umwelt and NGH Records**
- Australian raven
 - Black-faced cuckoo-shrike
 - Brown treecreeper (eastern subspecies)
 - Crimson rosella
 - Eastern spinebill
 - Eastern yellow robin
 - Fan-tailed cuckoo
 - Grey fantail
 - Magpie-lark
 - Mistletoebird
 - Noisy miner
 - Painted honeyeater
 - Pied butcherbird
 - Pied currawong
 - Rainbow bee-eater
 - Red-browed finch
 - Rufous whistler
 - Square-tailed kite
 - Striated pardalote
 - Sulphur-crested cockatoo
 - Superb fairywren
 - Turquoise parrot
 - Welcome swallow
 - White-bellied sea eagle
 - White-browed scrubwren
 - White-plumed honeyeater
 - White-throated gerygone
 - White-throated treecreeper
 - White-winged chough
 - Willie wagtail
 - Yellow-faced honeyeater

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 8.1 - K1
Liverpool Range Wind Farm
Bird and Bat Turbine
Strike Species



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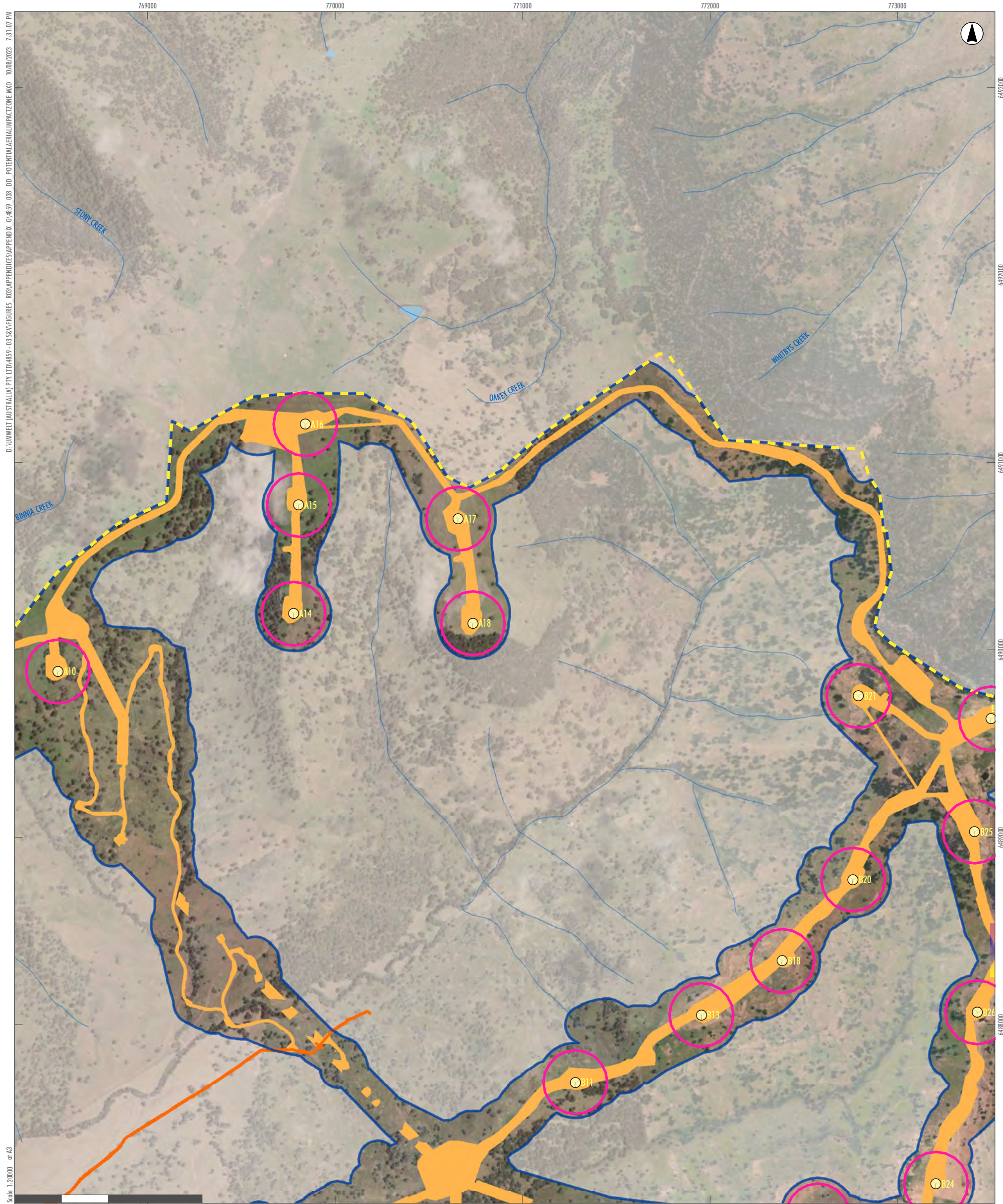
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GDA2020 MGA Zone 55

- Legend**
- RTS Project Site
 - RTS Development Corridor – Wind Farm
 - RTS Indicative Development Footprint – Wind Farm
 - RTS Wind Turbines
 - Potential Aerial Impact Zone (170m radius)
 - Drainage Line
 - Water Body
 - Roads

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 11.1 - A2
Liverpool Range Wind Farm
Potential Aerial Impact Zone
(170 metre turbine buffers)



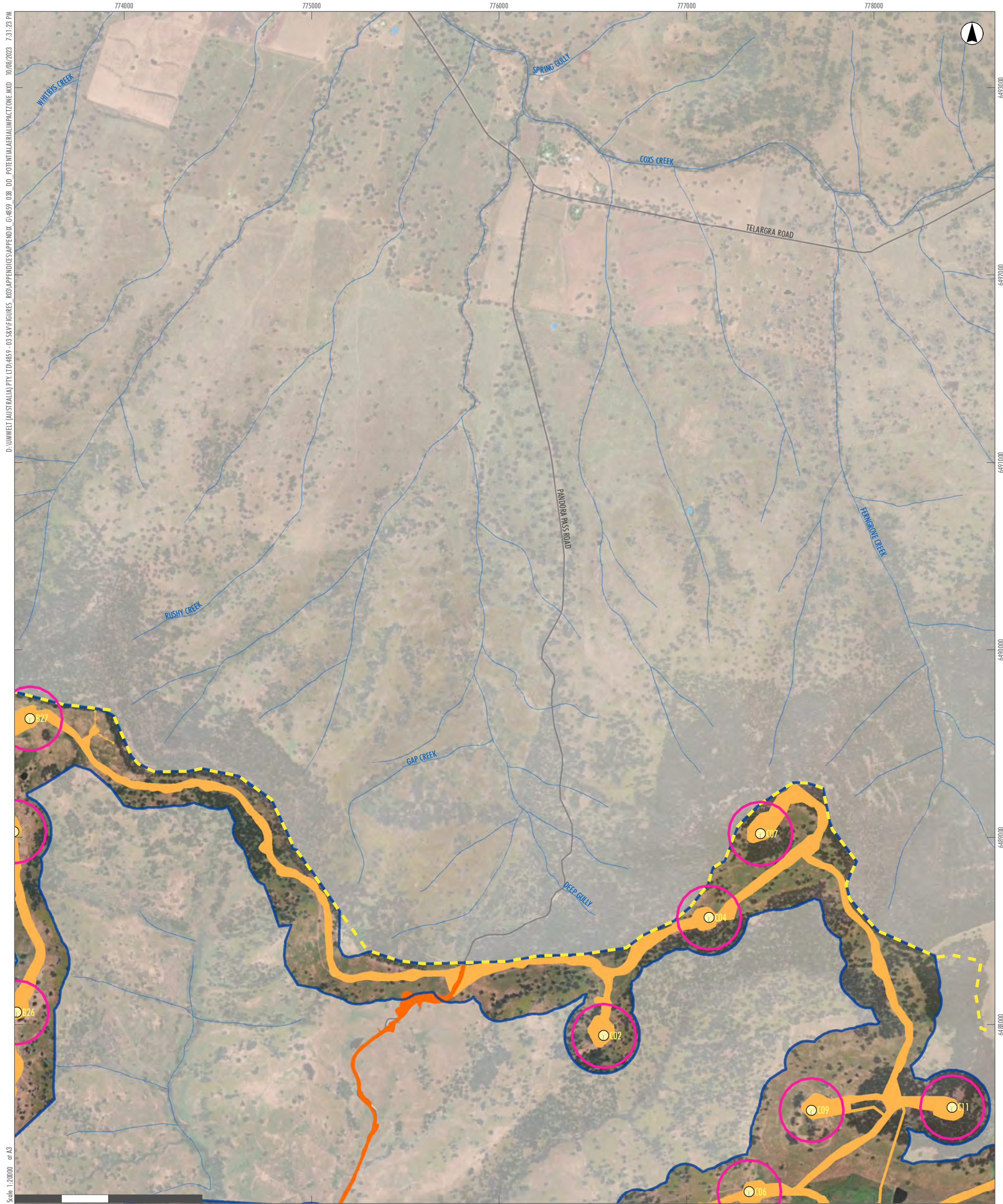
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- Scale: 1:20,000 at A3
- 0 500 1,000 Metres
- Legend**
- RTS Project Site
 - RTS Development Corridor – Wind Farm
 - RTS Indicative Development Footprint – Wind Farm
 - RTS Indicative Development Footprint – Public Road Upgrades
 - RTS Wind Turbines
 - Potential Aerial Impact Zone (170m radius)
 - Drainage Line
 - Water Body

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 11.1 - A3

**Liverpool Range Wind Farm
Potential Aerial Impact Zone
(170 metre turbine buffers)**



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- Scale: 1:20000 at A3
- 0 500 1,000 Metres
- Legend**
- RTS Project Site
 - RTS Development Corridor – Wind Farm
 - RTS Indicative Development Footprint – Wind Farm
 - RTS Indicative Development Footprint – Public Road Upgrades
 - RTS Wind Turbines
 - Potential Aerial Impact Zone (170m radius)
 - Drainage Line
 - Water Body
 - Roads

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 11.1 - A4

**Liverpool Range Wind Farm
Potential Aerial Impact Zone
(170 metre turbine buffers)**



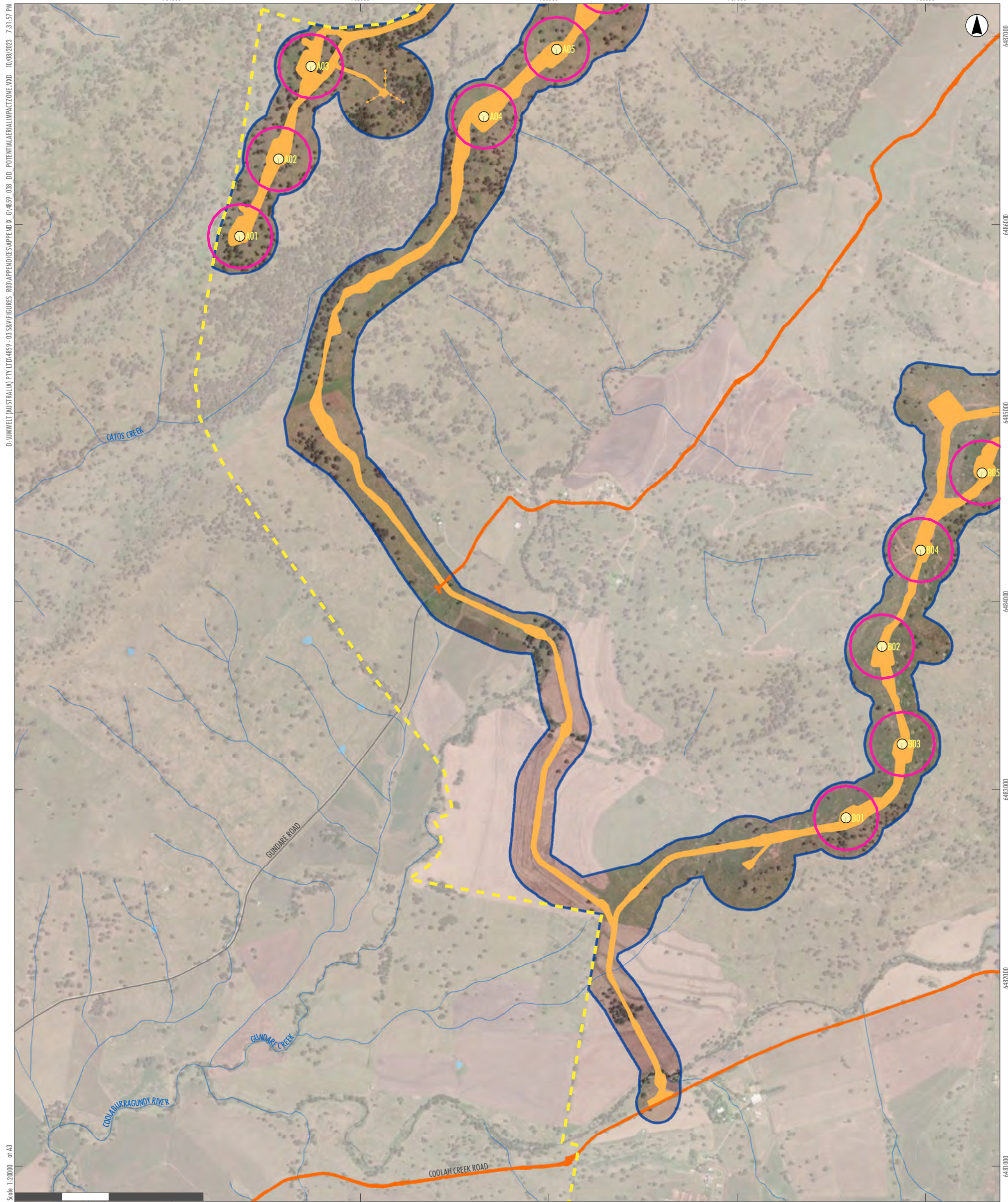
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- Legend**
- RTS Project Site
 - RTS Development Corridor – Wind Farm
 - RTS Indicative Development Footprint – Wind Farm
 - RTS Wind Turbines
 - Potential Aerial Impact Zone (170m radius)
 - Drainage Line
 - Water Body
 - Roads
 - National Parks (NPWS Estate)

A2	A3	A4	A5	A6	
B2	B3	B4	B5	B6	
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 11.1 - A5

**Liverpool Range Wind Farm
Potential Aerial Impact Zone
(170 metre turbine buffers)**

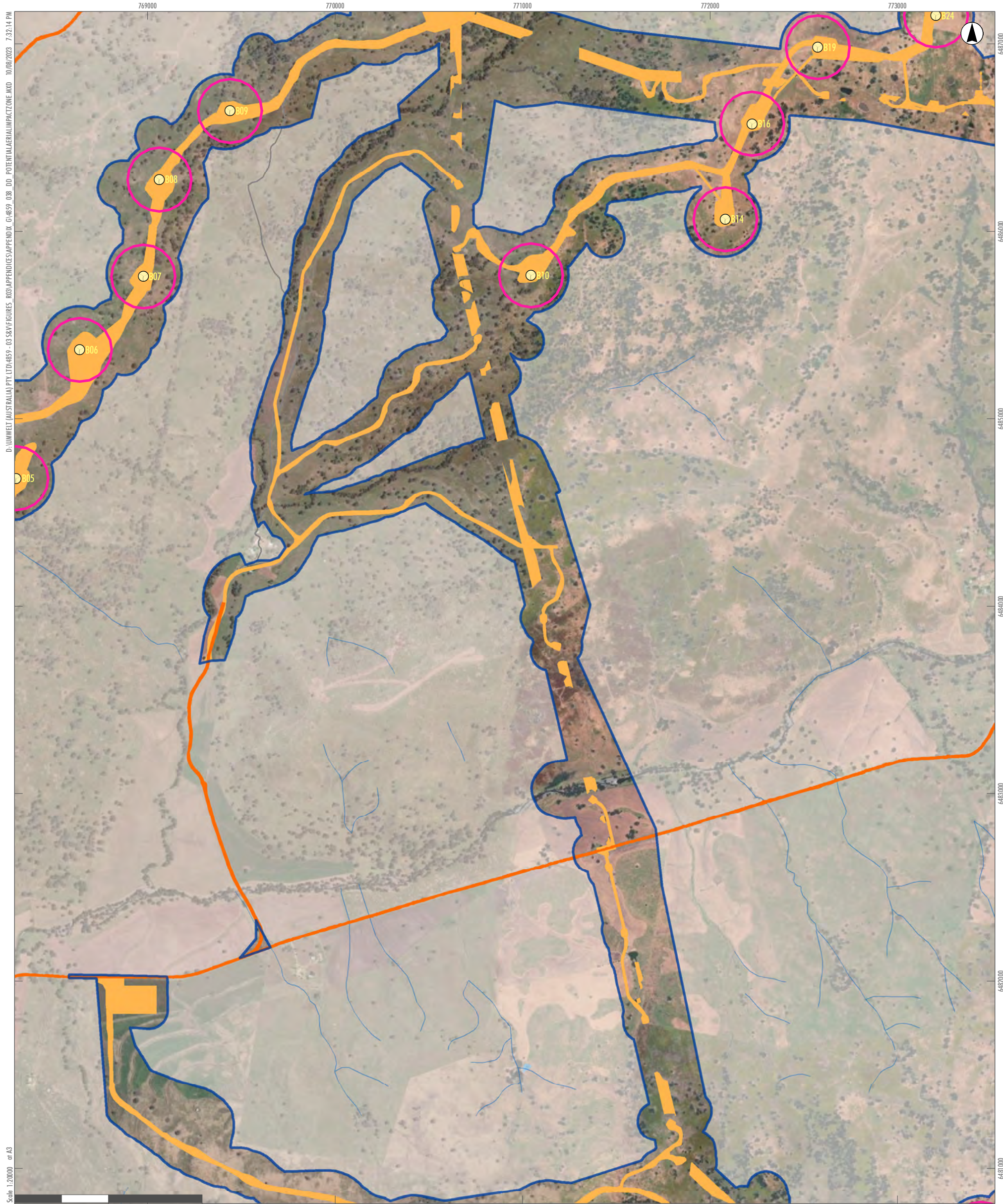


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- Legend**
- ▬ RTS Project Site
 - ▬ RTS Development Corridor – Wind Farm
 - ▬ RTS Indicative Development Footprint – Wind Farm
 - ▬ RTS Indicative Development Footprint – Public Road Upgrades
 - RTS Wind Turbines
 - Potential Aerial Impact Zone (170m radius)
 - ▬ Drainage Line
 - ▬ Water Body
 - ▬ Roads

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 11.1 - B2
 Liverpool Range Wind Farm
 Potential Aerial Impact Zone
 (170 metre turbine buffers)



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Scale: 1:20000 at A3

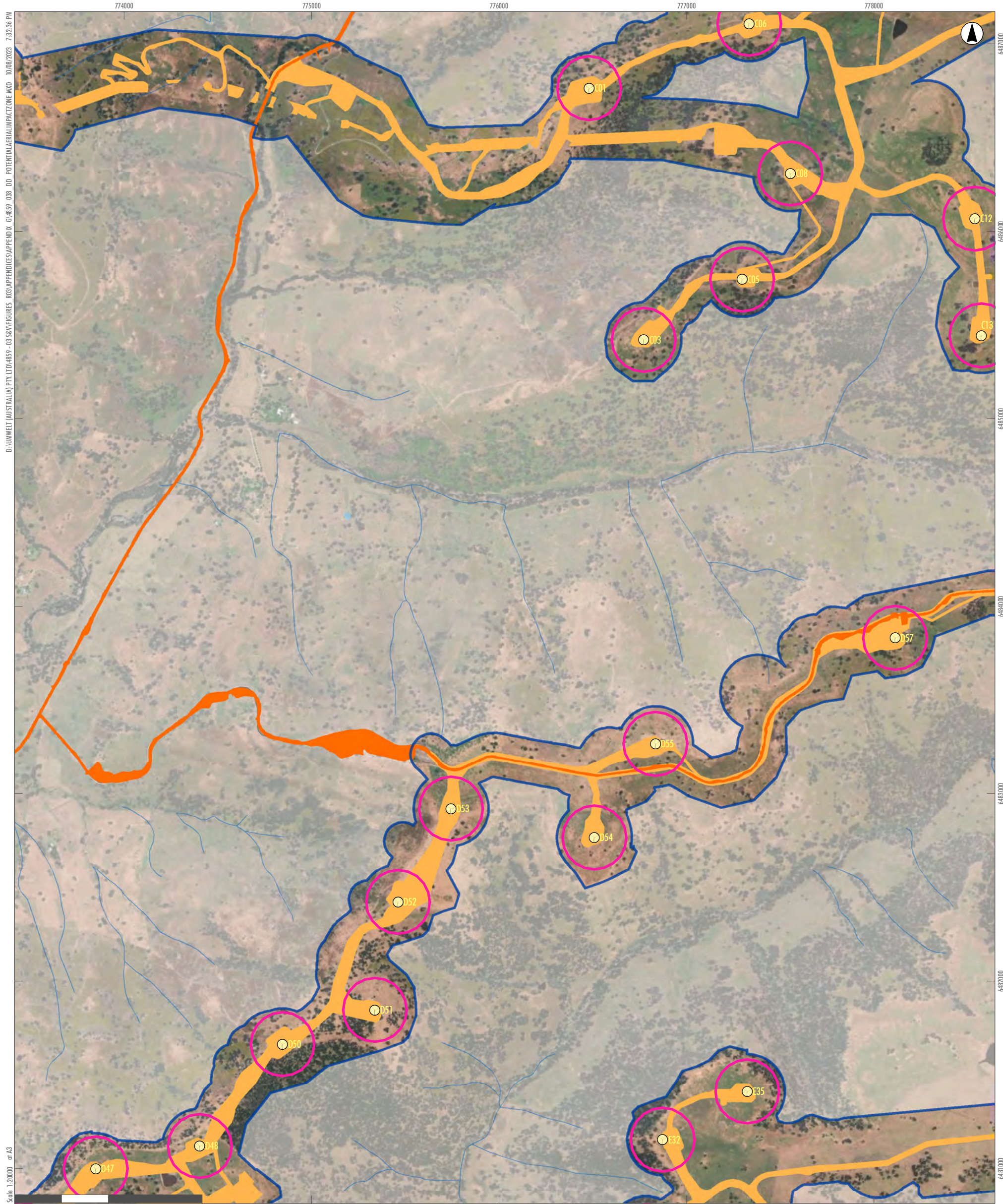
GDA2020 MGA Zone 55

- Legend**
- RTS Project Site
 - RTS Development Corridor – Wind Farm
 - RTS Indicative Development Footprint – Wind Farm
 - RTS Indicative Development Footprint – Public Road Upgrades
 - RTS Wind Turbines
 - Potential Aerial Impact Zone (170m radius)
 - Drainage Line
 - Water Body
 - Roads

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 11.1 - B3

**Liverpool Range Wind Farm
Potential Aerial Impact Zone
(170 metre turbine buffers)**



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Scale: 1:20000 at A3

6487000
6486000
6485000
6484000
6483000
6482000
6481000

- Legend**
- RTS Project Site
 - RTS Development Corridor – Wind Farm
 - RTS Indicative Development Footprint – Wind Farm
 - RTS Indicative Development Footprint – Public Road Upgrades
 - RTS Wind Turbines
 - Potential Aerial Impact Zone (170m radius)
 - Drainage Line
 - Water Body
 - Roads

A2	A3	A4	A5		
B2	B3	B4	B5		
C1	C2	C3	C4	C5	
D1	D2	D3	D4	D5	D6
E2	E3	E4	E5	E6	
F3	F4	F5	F6		
G3	G4	G5			
H2	H3	H4			
I1	I2	I3			
J1	J2				
K1					

APPENDIX 11.1 - B4

**Liverpool Range Wind Farm
Potential Aerial Impact Zone
(170 metre turbine buffers)**