BIOSIS
RESEARCH

The Macquarie River to Orange Pipeline Project

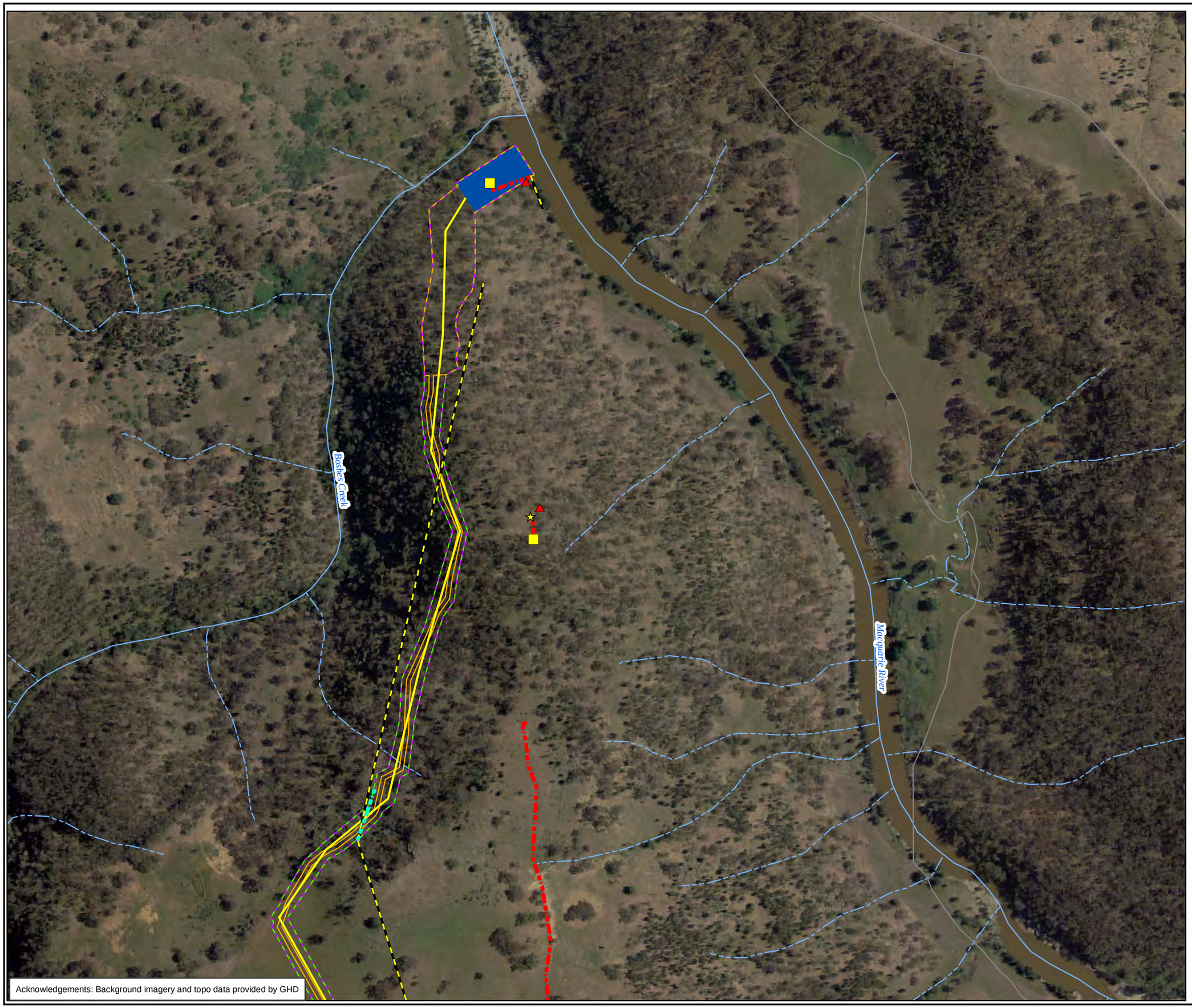
Terrestrial Flora & Fauna Assessment

Volume 5: Appendix 5 (Figure Mapbook 4) and References

A report prepared for Orange City Council

Final – 3 August 2012

Natural & Cultural Heritage Consultants 18-20 Mandible Street, Alexandria NSW



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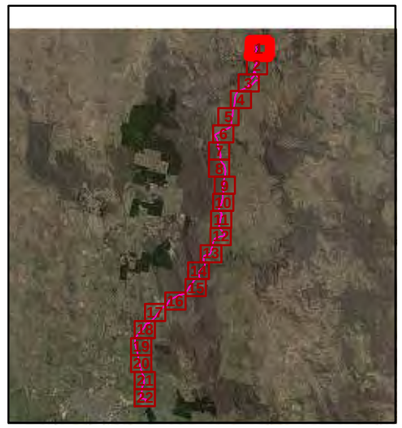

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Fauna Survey Effort

Survey Technique

- Anabat
- Bird Survey
- Frog Survey
- Habitat Assessment
- Harp Trap
- Herpetofauna Survey
- Owl & Mammal Call-playback
- Owl Call-playback
- Remote Camera Survey
- Stag-watch
- Bird Survey
- Elliott Trapping (Arboreal)
- Elliott Trapping (Ground)
- Frog Survey
- Habitat Assessment
- Herpetofauna Survey
- Spotlighting from Vehicle
- Spotlighting on Foot

Proposed Impact Areas

- Pipeline Easement
- Proposed Construction Access Zone
- Proposed Construction Clearing Zone
- Construction Compound Location
- Proposed Pump Station
- Existing Electricity Line
- Proposed Electicity Line

Figure 4.1: Fauna Survey Effort Detail

0 50 100 150 200 250

Metres

Scale: 1:5,000 @ A3

Coordinate System: GDA 1994 MGA Zone 56

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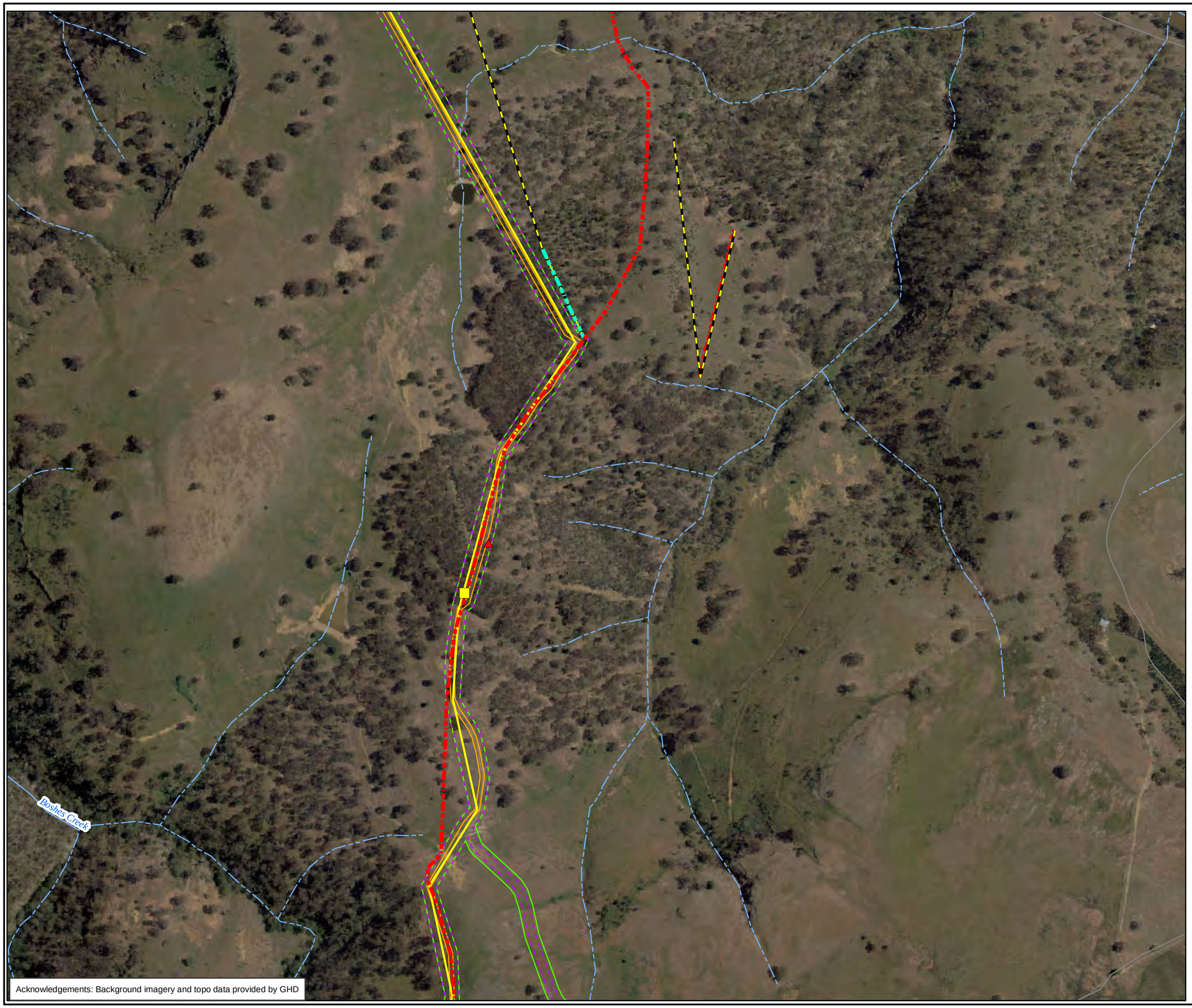

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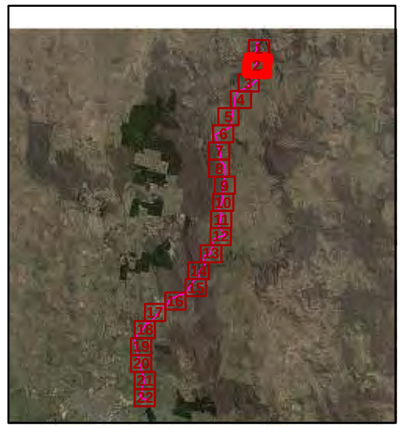

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Fauna Survey Effort

Survey Technique

- Anabat
- Bird Survey
- Frog Survey
- Habitat Assessment
- Harp Trap
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- Owl & Mammal Call-playback
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- Bird Survey
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- Elliott Trapping (Ground)
- Frog Survey
- Habitat Assessment
- Herpetofauna Survey
- Spotlighting from Vehicle
- Spotlighting on Foot

Proposed Impact Areas

- Pipeline Easement
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- Proposed Construction Clearing Zone
- Construction Compound Location
- Proposed Pump Station
- Existing Electricity Line
- Proposed Electicity Line

Figure 4.2: Fauna Survey Effort Detail

0 50 100 150 200 250

Metres

Scale: 1:5,000 @ A3

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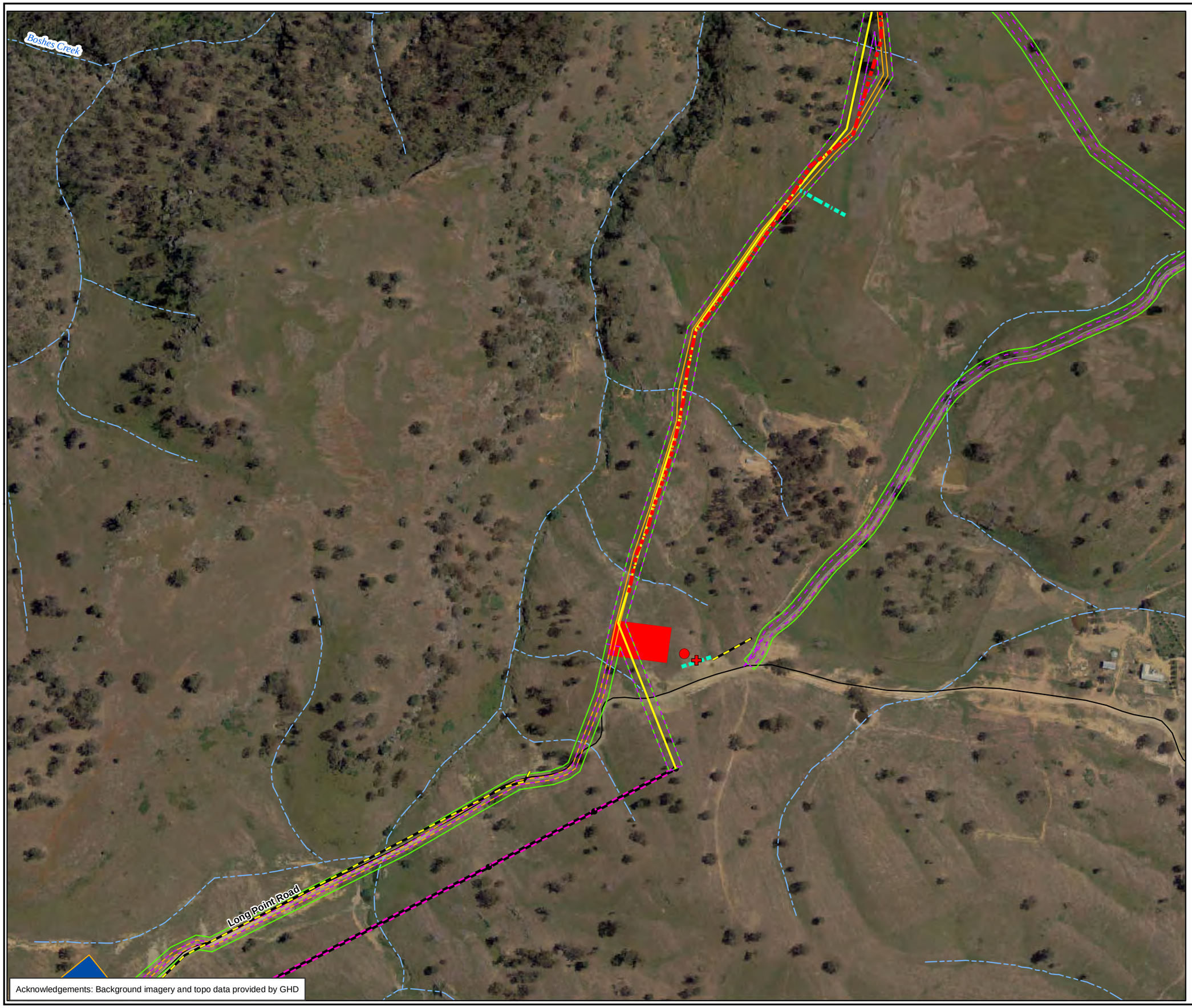

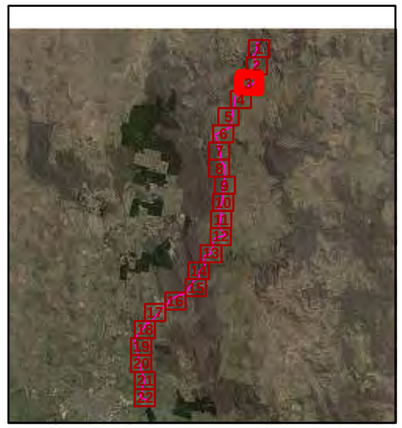

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Fauna Survey Effort

Survey Technique

- Anabat
- Bird Survey
- Frog Survey
- Habitat Assessment
- Harp Trap
- Herpetofauna Survey
- Owl & Mammal Call-playback
- Owl Call-playback
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- Bird Survey
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- Elliott Trapping (Ground)
- Frog Survey
- Habitat Assessment
- Herpetofauna Survey
- Spotlighting from Vehicle
- Spotlighting on Foot

Proposed Impact Areas

- Pipeline Easement
- Proposed Construction Access Zone
- Proposed Construction Clearing Zone
- Construction Compound Location
- Proposed Pump Station
- Existing Electricity Line
- Proposed Electicity Line

Figure 4.3: Fauna Survey Effort Detail

0 50 100 150 200 250

Metres

Scale: 1:5,000 @ A3

Coordinate System: GDA 1994 MGA Zone 56

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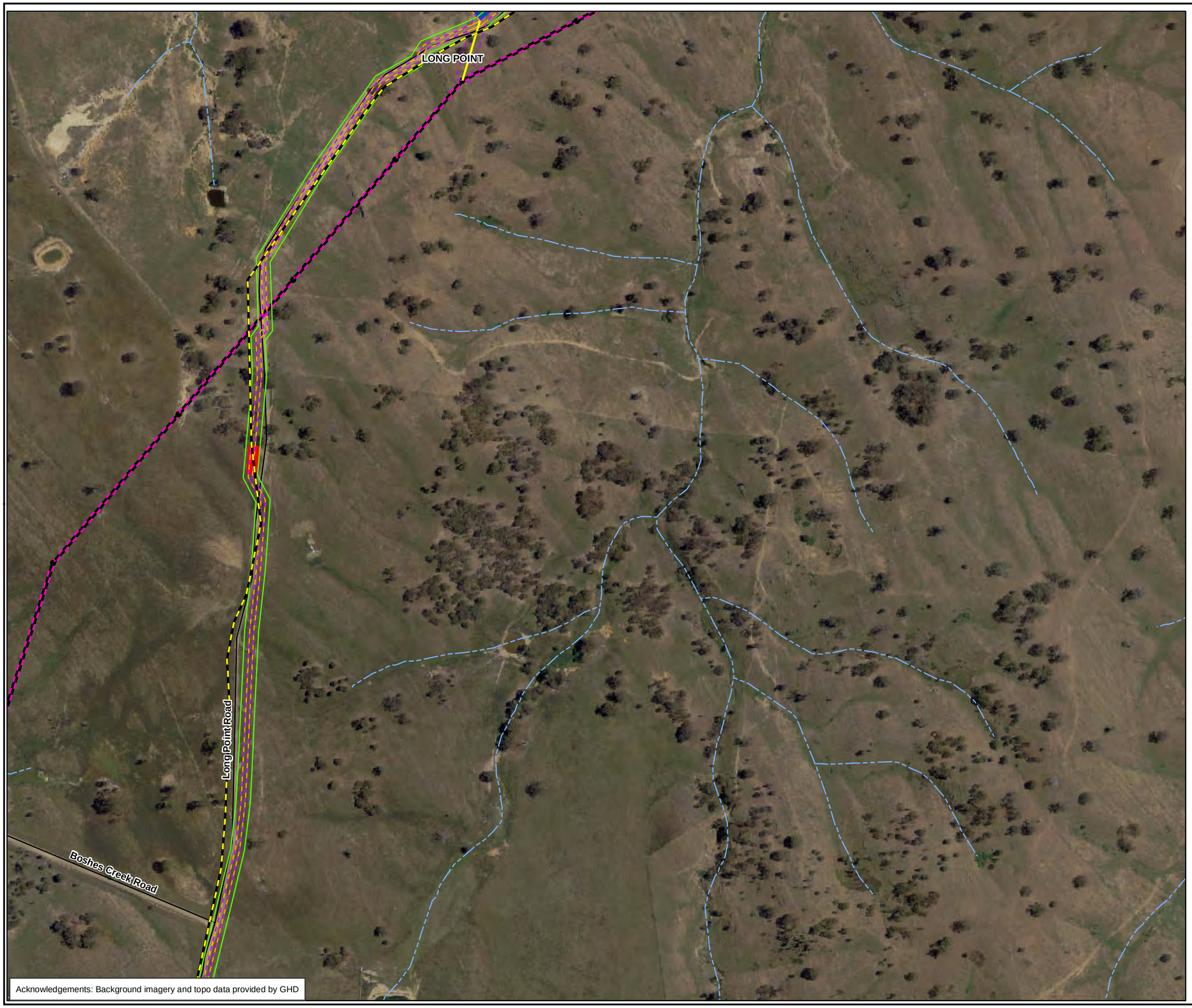

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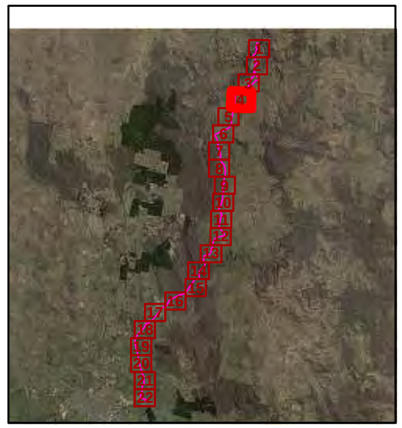

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Fauna Survey Effort

Survey Technique

- Anabat
- Bird Survey
- Frog Survey
- Habitat Assessment
- Harp Trap
- Herpetofauna Survey
- Owl & Mammal Call-playback
- Owl Call-playback
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- Bird Survey
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- Frog Survey
- Habitat Assessment
- Herpetofauna Survey
- Spotlighting from Vehicle
- Spotlighting on Foot

Proposed Impact Areas

- Pipeline Easement
- Proposed Construction Access Zone
- Proposed Construction Clearing Zone
- Construction Compound Location
- Proposed Pump Station
- Existing Electricity Line
- Proposed Electicity Line

Figure 4.4: Fauna Survey Effort Detail

0 50 100 150 200 250

Metres

Scale: 1:5,000 @ A3

Coordinate System: GDA 1994 MGA Zone 56

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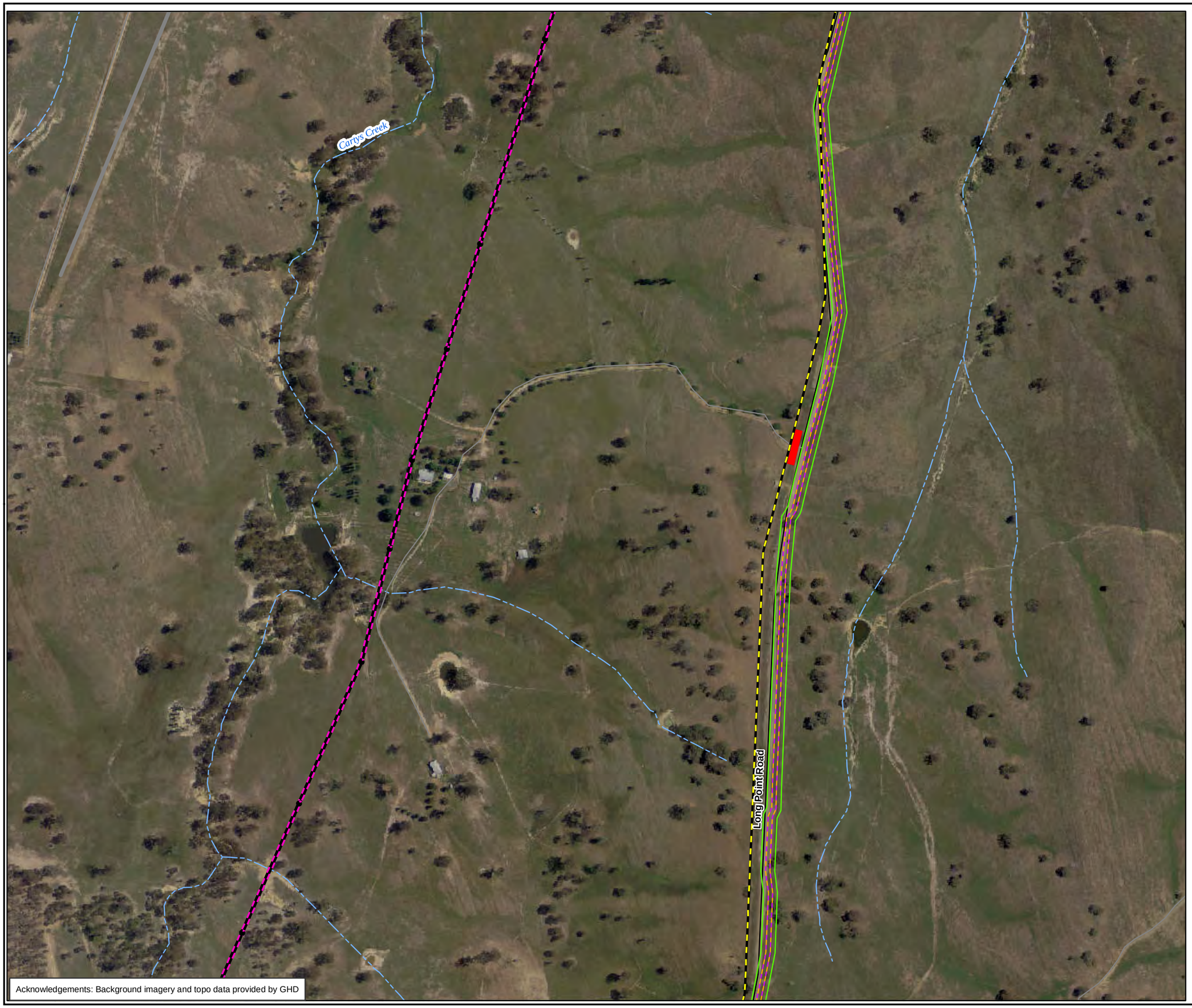

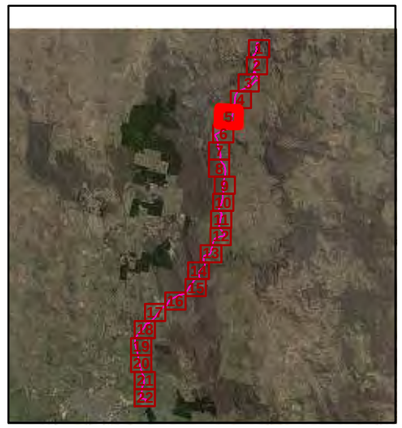

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Fauna Survey Effort

Survey Technique

- Anabat
- Bird Survey
- Frog Survey
- Habitat Assessment
- Harp Trap
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- Habitat Assessment
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- Spotlighting from Vehicle
- Spotlighting on Foot

Proposed Impact Areas

- Pipeline Easement
- Proposed Construction Access Zone
- Proposed Construction Clearing Zone
- Construction Compound Location
- Proposed Pump Station
- Existing Electricity Line
- Proposed Electicity Line

Figure 4.5: Fauna Survey Effort Detail

0 50 100 150 200 250

Metres

Scale: 1:5,000 @ A3

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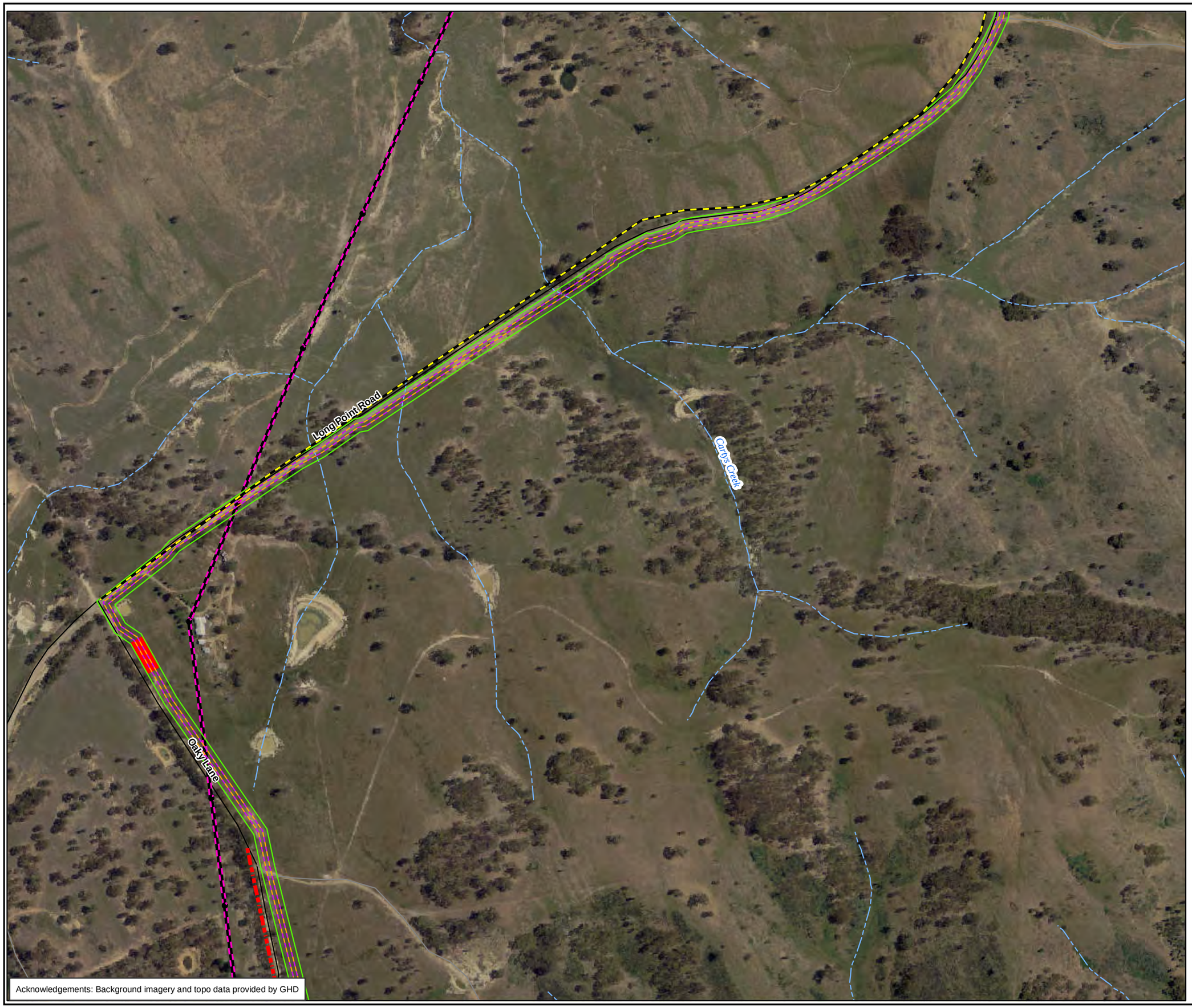

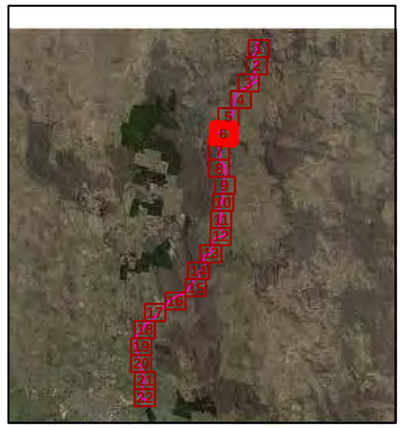

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Fauna Survey Effort

Survey Technique

- Anabat
- Bird Survey
- Frog Survey
- Habitat Assessment
- Harp Trap
- Herpetofauna Survey
- Owl & Mammal Call-playback
- Owl Call-playback
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- Spotlighting on Foot

Proposed Impact Areas

- Pipeline Easement
- Proposed Construction Access Zone
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- Construction Compound Location
- Proposed Pump Station
- Existing Electricity Line
- Proposed Electicity Line

Figure 4.6: Fauna Survey Effort Detail

0 50 100 150 200 250

Metres

Scale: 1:5,000 @ A3

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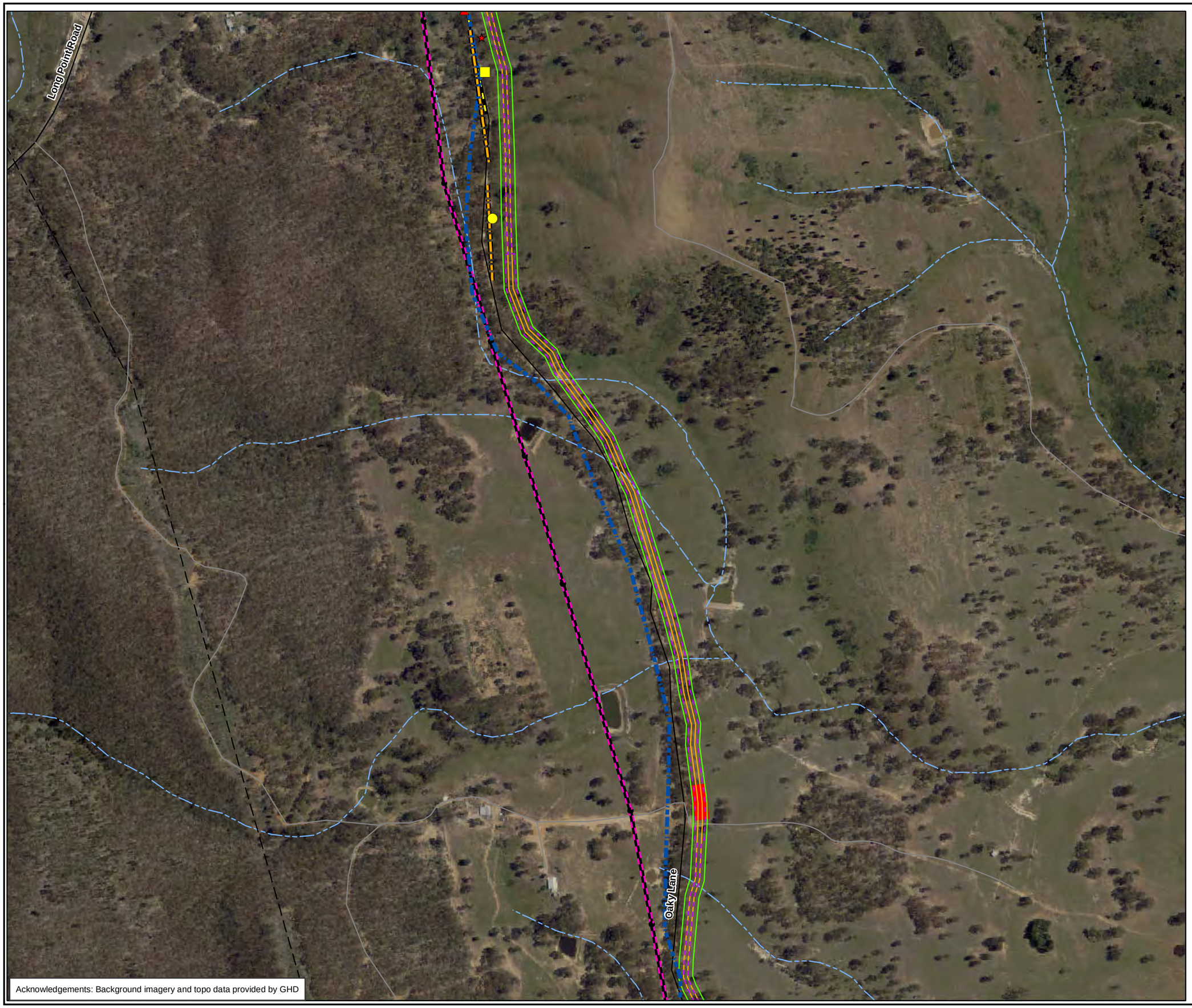

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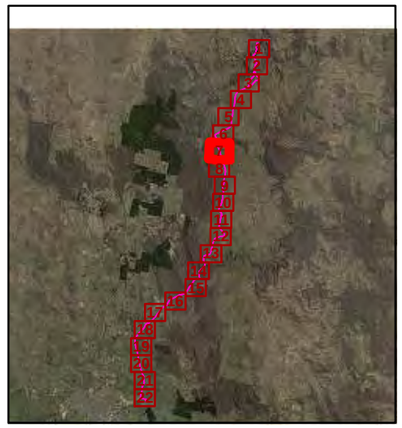

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Fauna Survey Effort

Survey Technique

- Anabat
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Proposed Impact Areas

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- Existing Electricity Line
- Proposed Electicity Line

Figure 4.7: Fauna Survey Effort Detail

0 50 100 150 200 250

Metres

Scale: 1:5,000 @ A3

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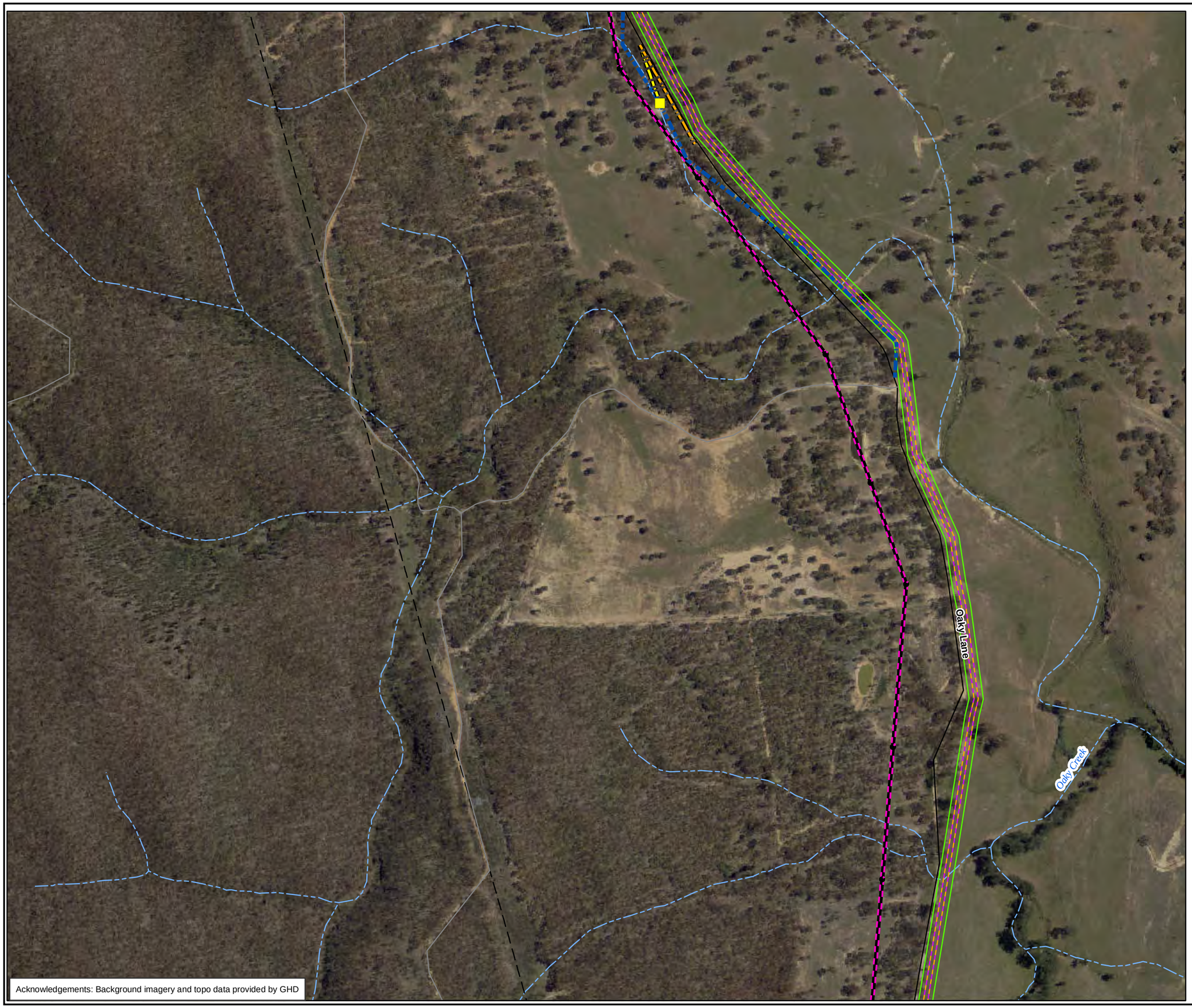

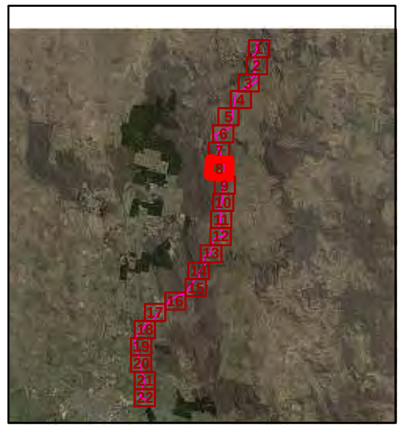

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Fauna Survey Effort

Survey Technique

- Anabat
- Bird Survey
- Frog Survey
- Habitat Assessment
- Harp Trap
- Herpetofauna Survey
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Proposed Impact Areas

- Pipeline Easement
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- Construction Compound Location
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Figure 4.8: Fauna Survey Effort Detail

0 50 100 150 200 250

Metres

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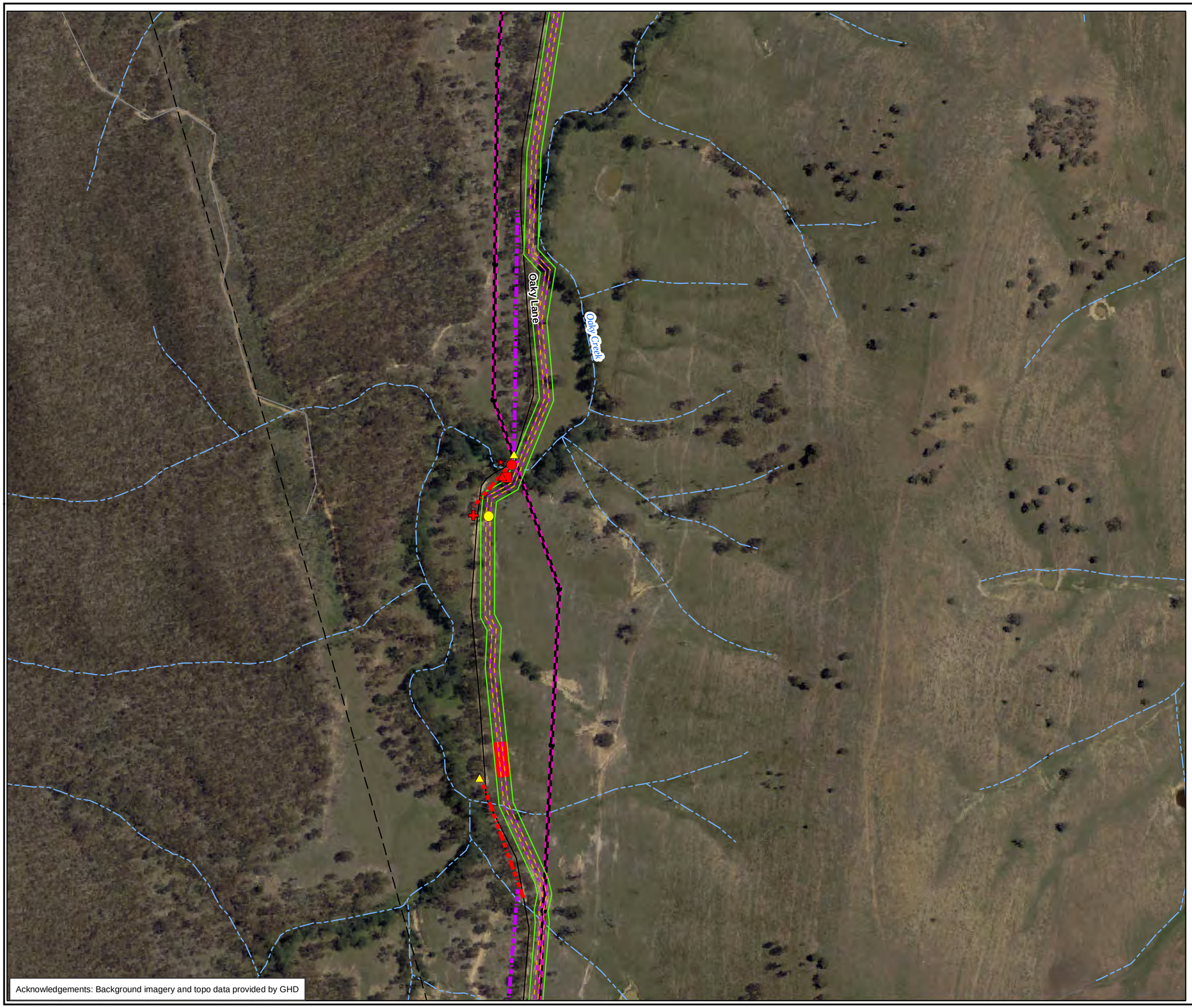

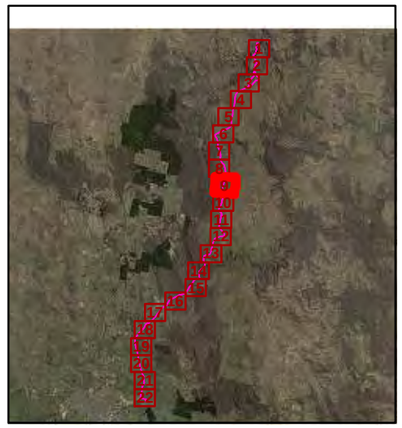

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Fauna Survey Effort

Survey Technique

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Proposed Impact Areas

- Pipeline Easement
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- Construction Compound Location
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- Proposed Electicity Line

Figure 4.9: Fauna Survey Effort Detail

0 50 100 150 200 250

Metres

Scale: 1:5,000 @ A3

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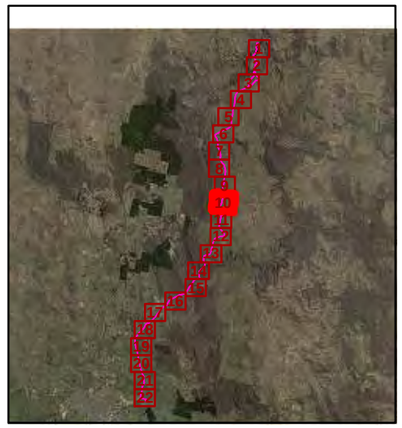

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Fauna Survey Effort

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Proposed Impact Areas

- Pipeline Easement
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- Proposed Electicity Line

Figure 4.10: Fauna Survey Effort Detail

0 50 100 150 200 250

Metres

Scale: 1:5,000 @ A3

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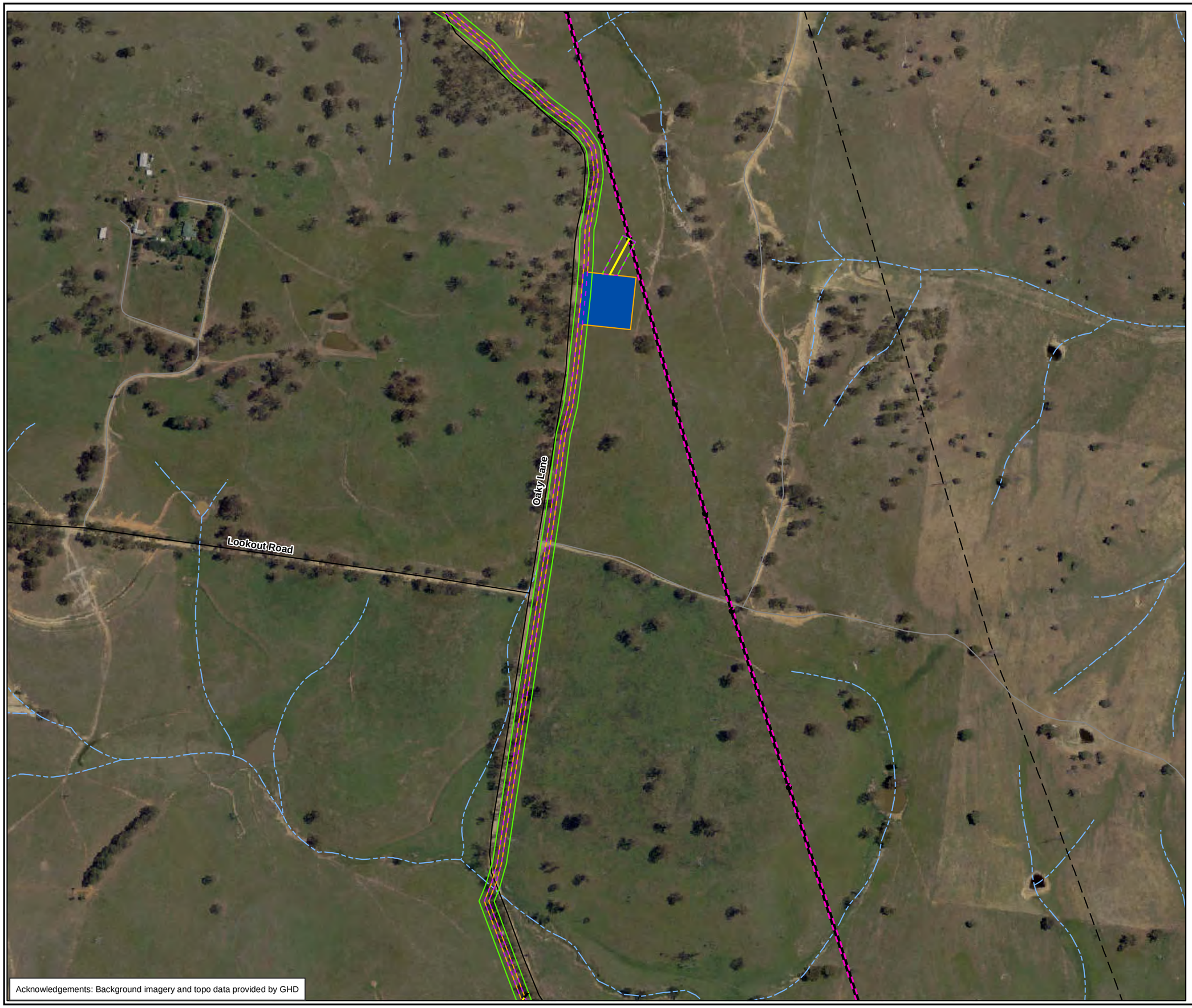

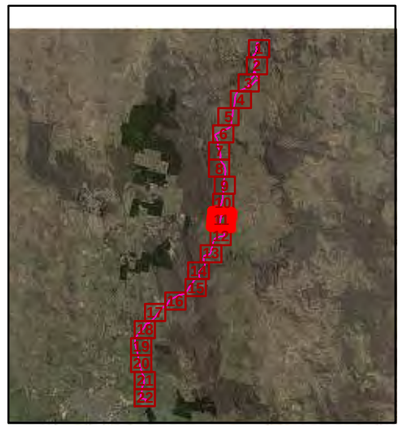

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Fauna Survey Effort

Survey Technique

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- Frog Survey
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- Owl & Mammal Call-playback
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Proposed Impact Areas

- Pipeline Easement
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- Proposed Construction Clearing Zone
- Construction Compound Location
- Proposed Pump Station
- Existing Electricity Line
- Proposed Electicity Line

Figure 4.11: Fauna Survey Effort Detail

0 50 100 150 200 250

Metres

Scale: 1:5,000 @ A3

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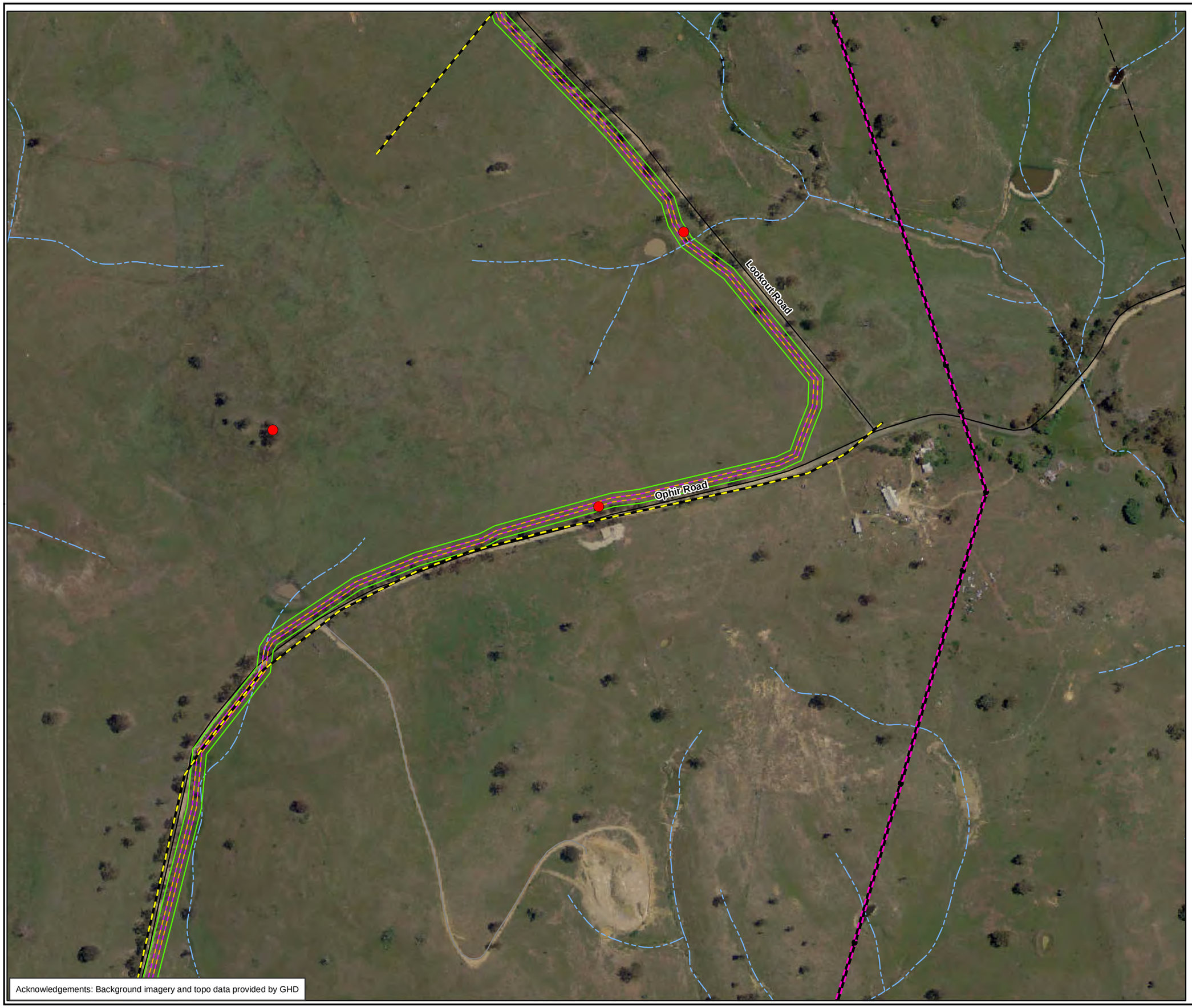

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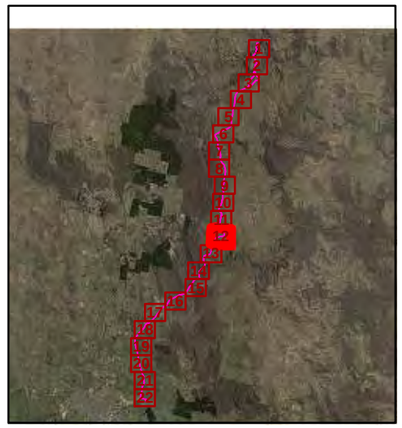

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Fauna Survey Effort

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Proposed Impact Areas

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- Proposed Construction Access Zone
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- Construction Compound Location
- Proposed Pump Station
- Existing Electricity Line
- Proposed Electicity Line

Figure 4.12: Fauna Survey Effort Detail

0 50 100 150 200 250

Metres

Scale: 1:5,000 @ A3

Coordinate System: GDA 1994 MGA Zone 56

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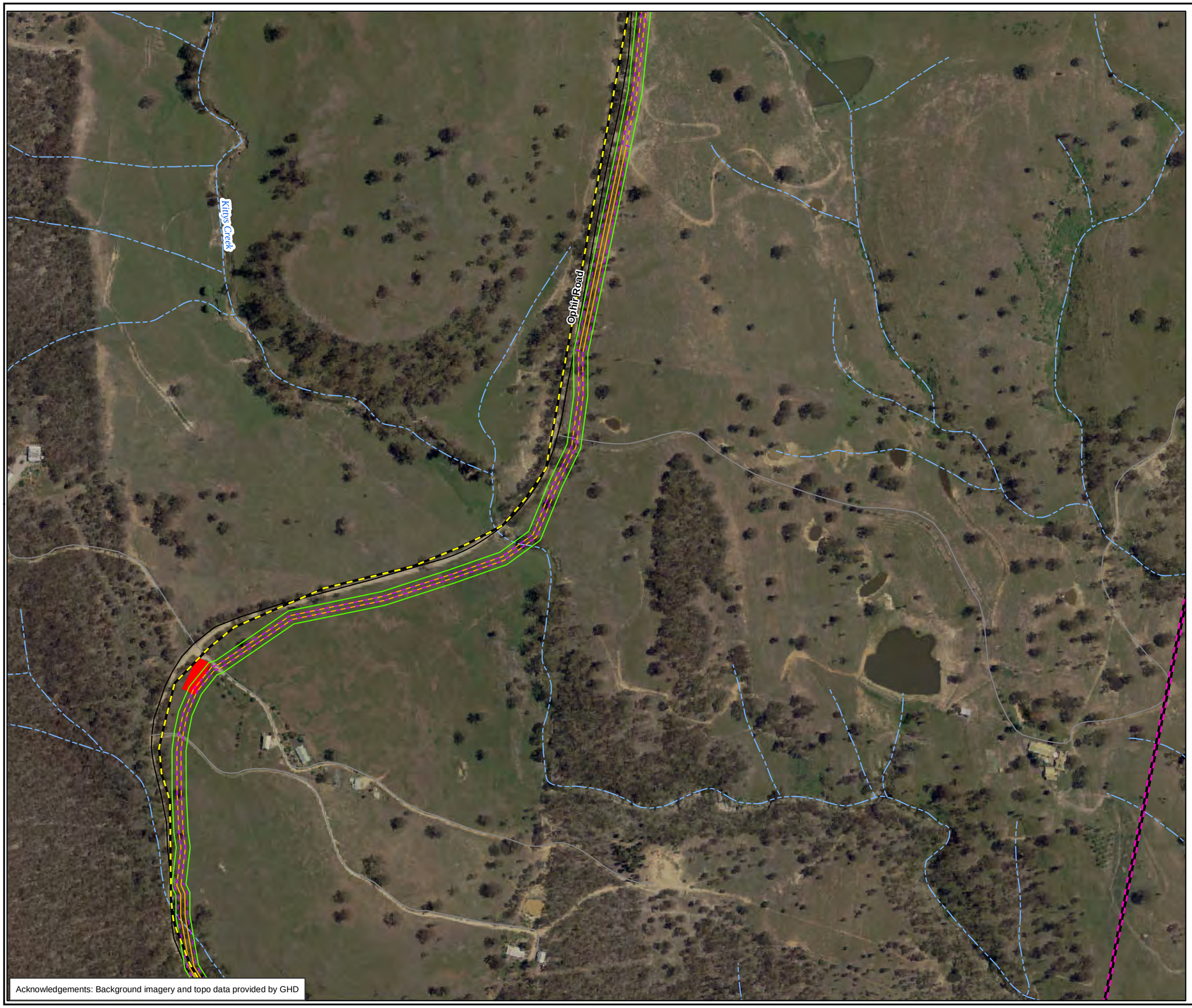

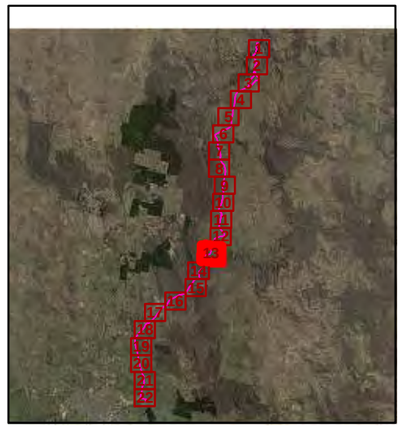

Legend

Fauna Survey Effort

Survey Technique

- Anabat
- Bird Survey
- Frog Survey
- Habitat Assessment
- Harp Trap
- Herpetofauna Survey
- Owl & Mammal Call-playback
- Owl Call-playback
- Remote Camera Survey
- Stag-watch
- Bird Survey
- Elliott Trapping (Arboreal)
- Elliott Trapping (Ground)
- Frog Survey
- Habitat Assessment
- Herpetofauna Survey
- Spotlighting from Vehicle
- Spotlighting on Foot

Proposed Impact Areas

- Pipeline Easement
- Proposed Construction Access Zone
- Proposed Construction Clearing Zone
- Construction Compound Location
- Proposed Pump Station
- Existing Electricity Line
- Proposed Electicity Line

Figure 4.13: Fauna Survey Effort Detail

0 50 100 150 200 250

Metres

Scale: 1:5,000 @ A3

Coordinate System: GDA 1994 MGA Zone 56

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2015

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