



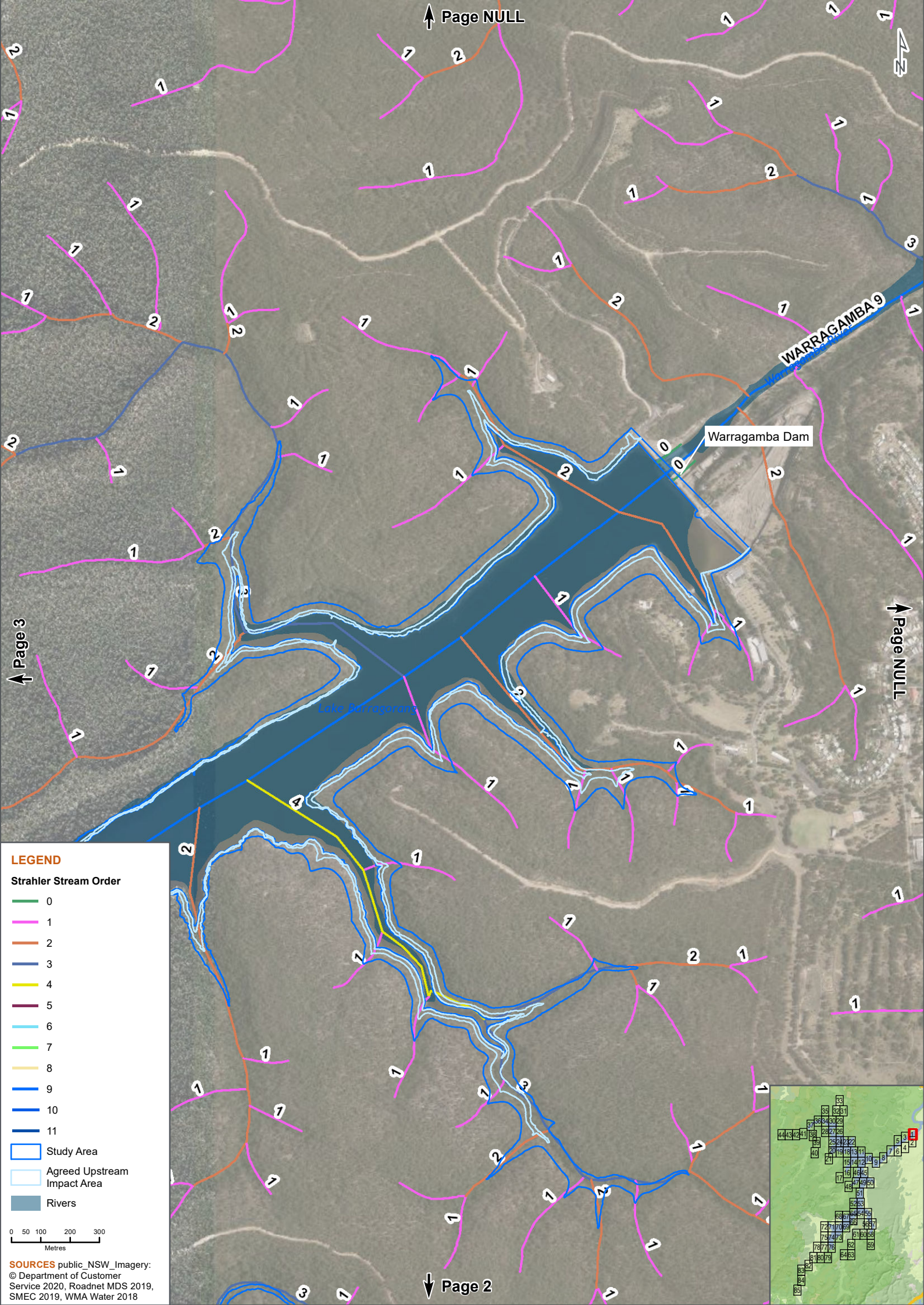
Artist's Impression

Environmental Impact Statement – Appendix F1: Biodiversity Assessment Report - Upstream

Warragamba Dam Raising

Reference No. 30012078
Prepared for WaterNSW
10 September 2021

Appendix L – Part 2a: Hydrological features

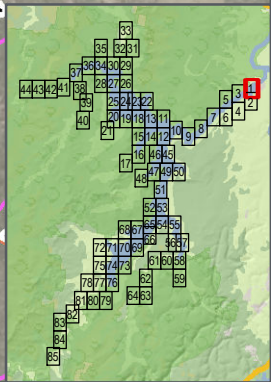


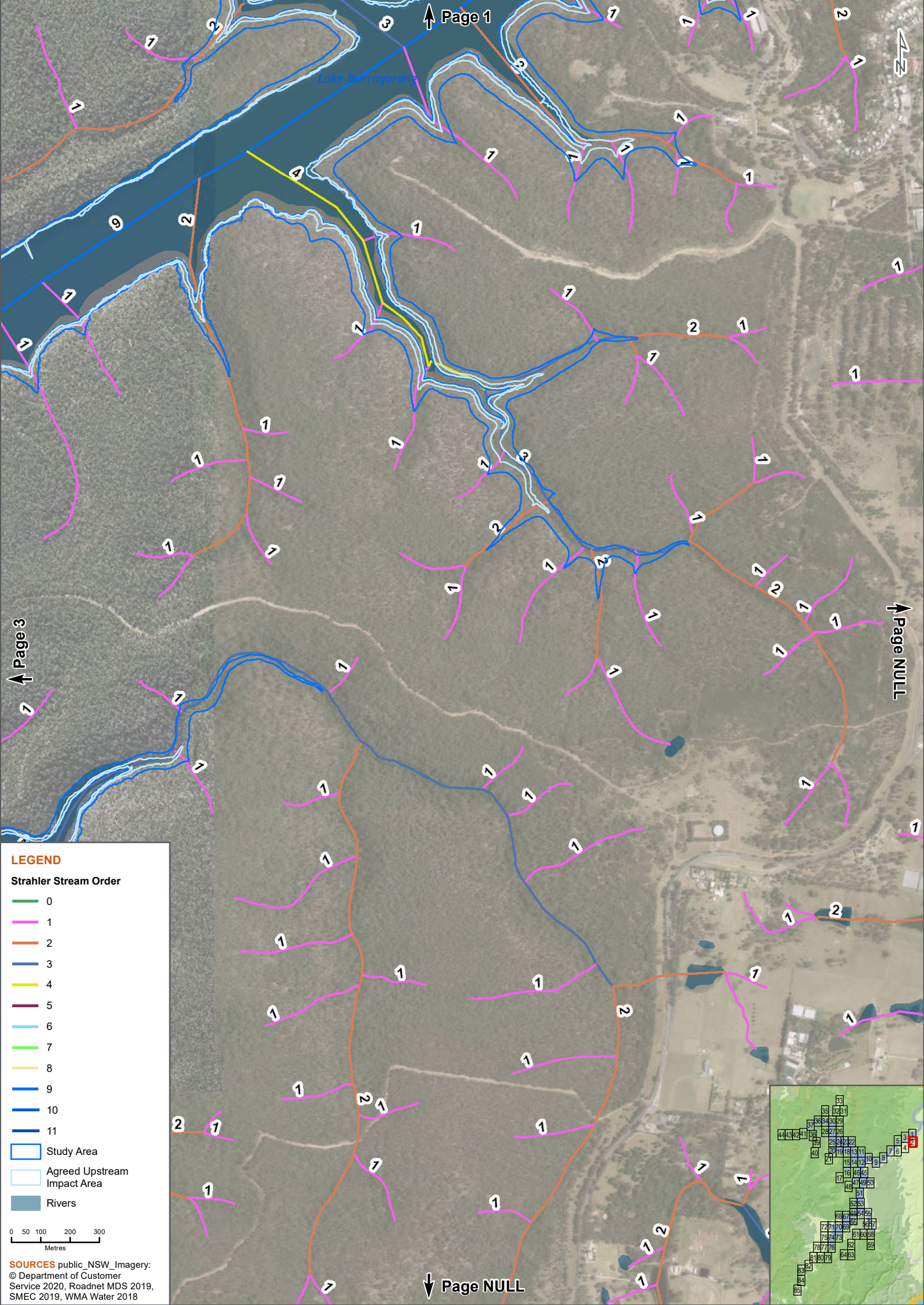
LEGEND
Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- Study Area
- Agreed Upstream Impact Area
- Rivers

0 50 100 200 300
Metres

SOURCES public_NSW_Imagery:
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018





Lake Barragorang

↑ Page 1

Page 3
↑

Page NULL
↑

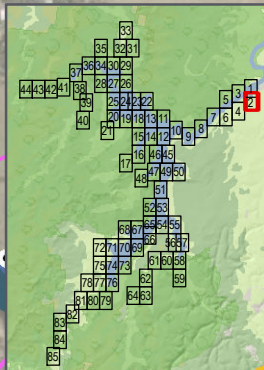
↓ Page NULL

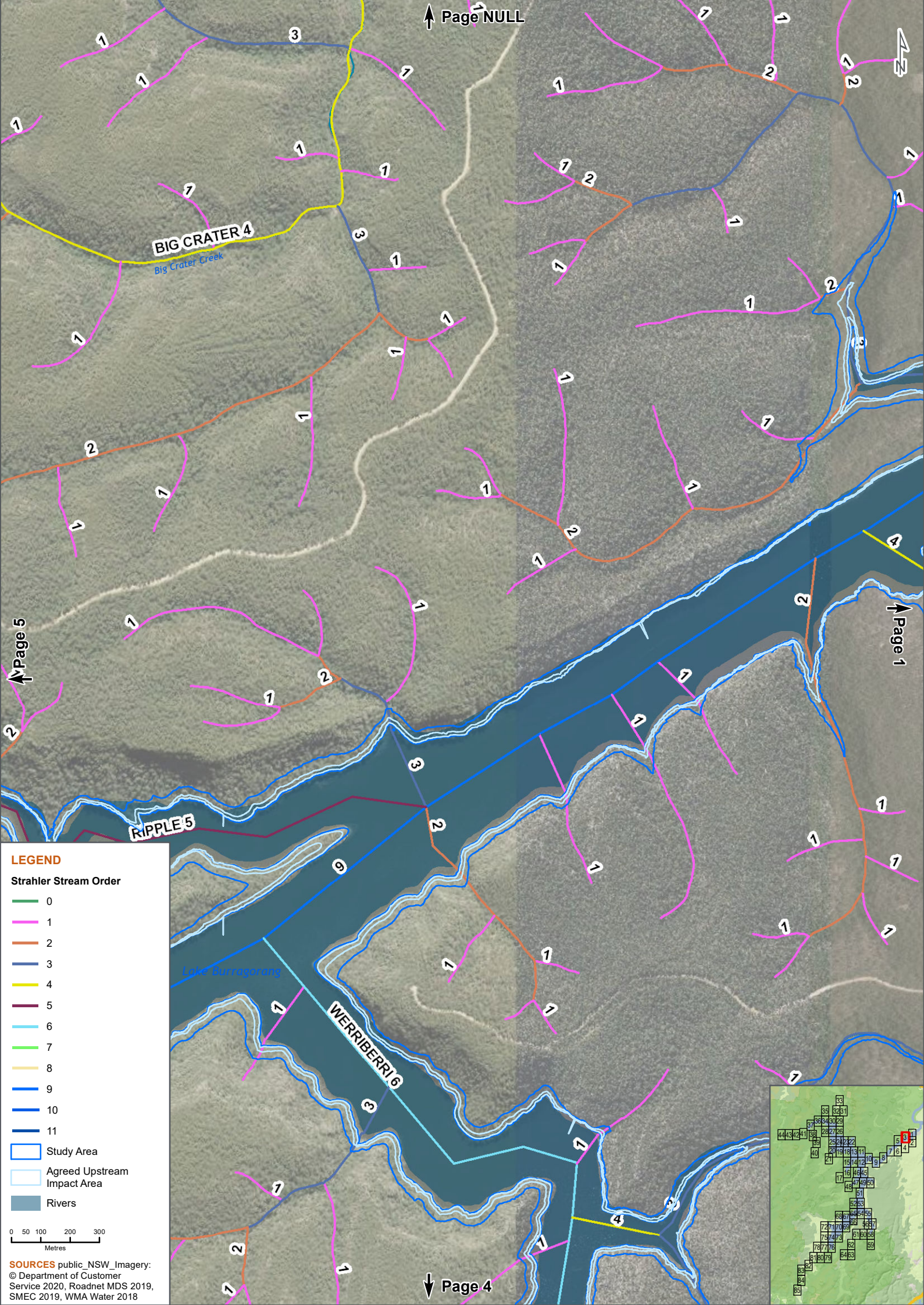
LEGEND
Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- Study Area
- Agreed Upstream Impact Area
- Rivers

0 50 100 200 300
Metres

SOURCES public_NSW_Imagery:
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018





BIG CRATER 4
Big Crater Creek

RIPPLE 5

Lake Durregoorang

WERRIBERRI 6

LEGEND

Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

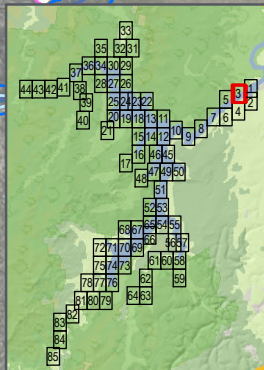
Study Area

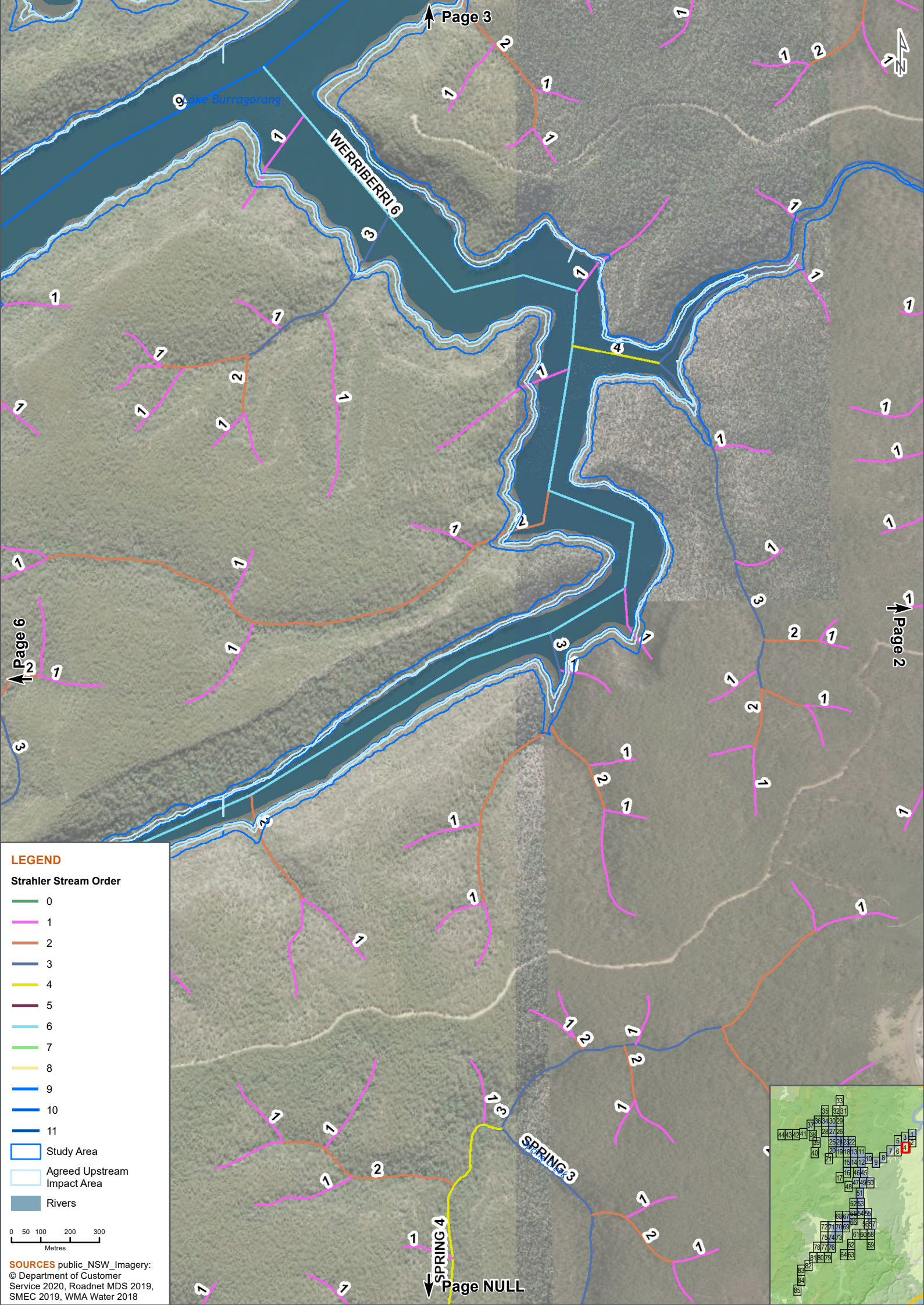
Agreed Upstream Impact Area

Rivers

0 50 100 200 300
Metres

SOURCES public_NSW_Imagery:
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018





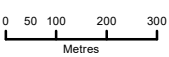
Page 3

Page 2

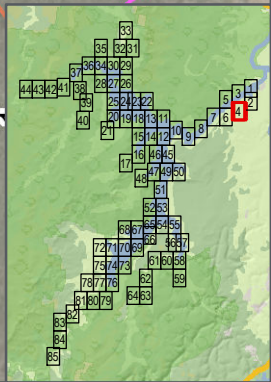
Page NULL

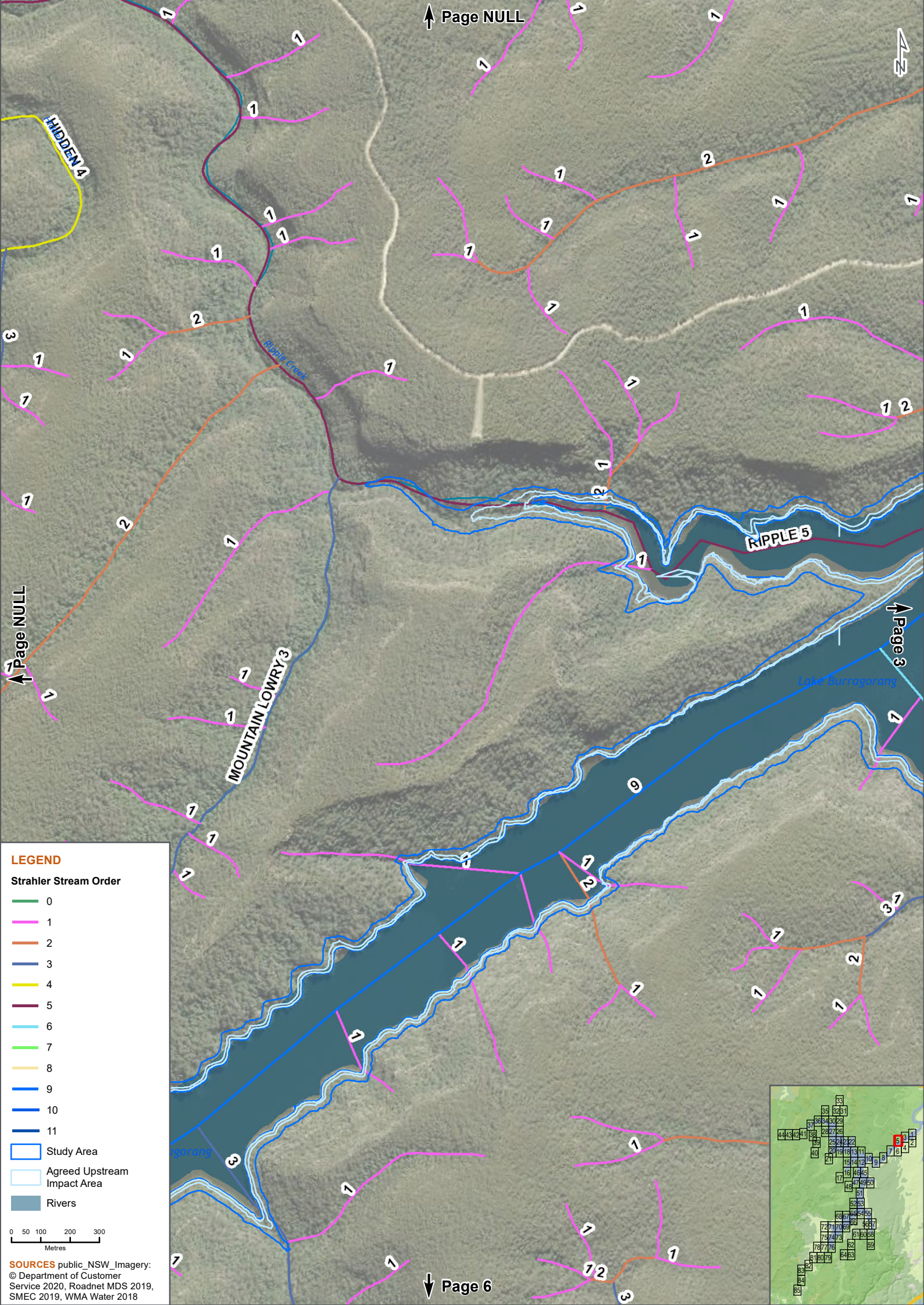
LEGEND
Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- Study Area
- Agreed Upstream Impact Area
- Rivers



SOURCES public_NSW_Imagery:
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018





LEGEND

Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

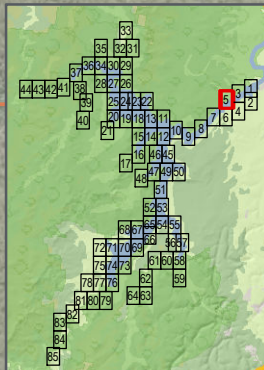
Study Area

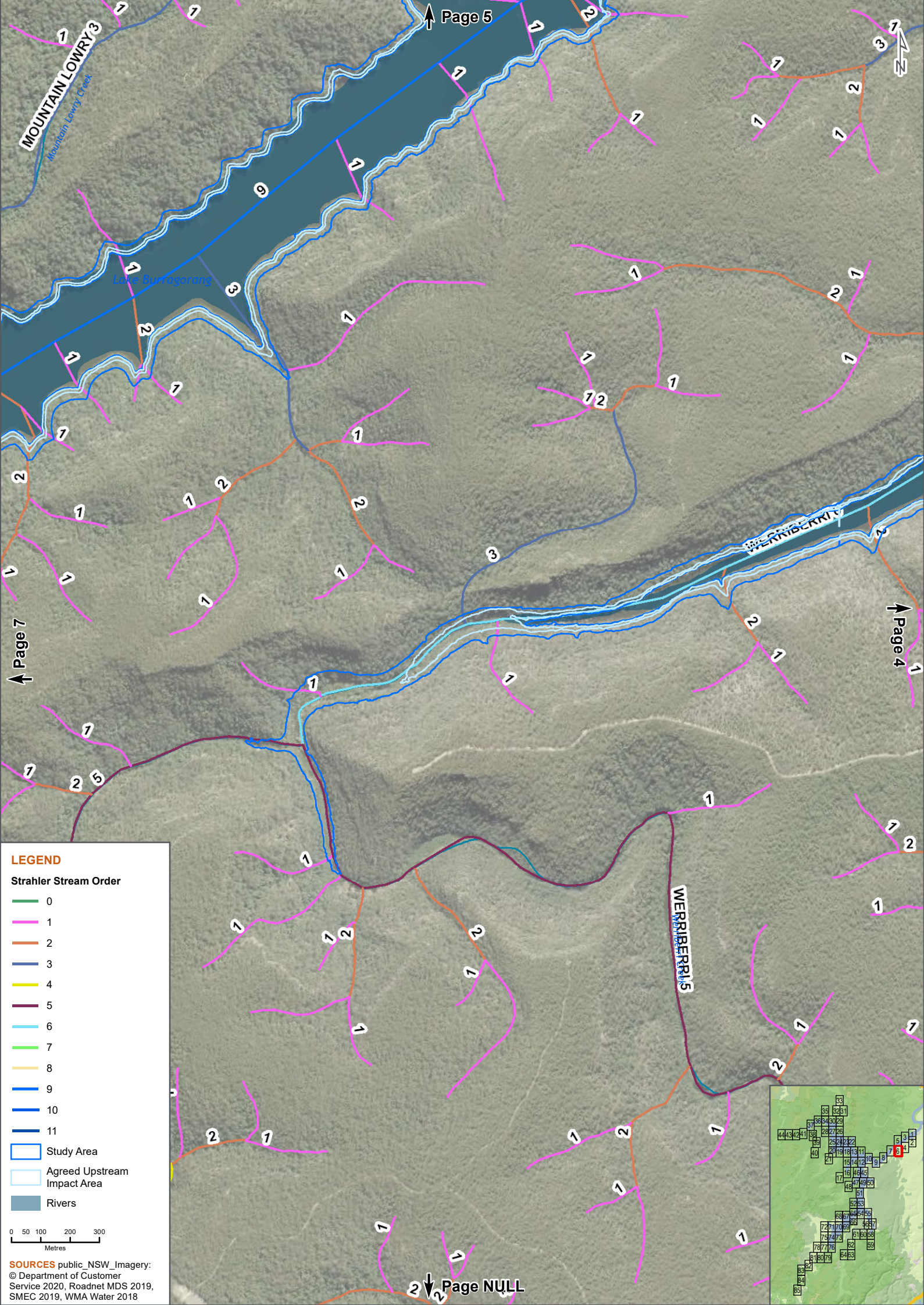
Agreed Upstream Impact Area

Rivers

0 50 100 200 300
Metres

SOURCES public_NSW_Imagery:
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018





MOUNTAIN LOWRY
Mountain Lowry Creek

Lake Burragorang

WERIBERRI

WERIBERRI CREEK

LEGEND

Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

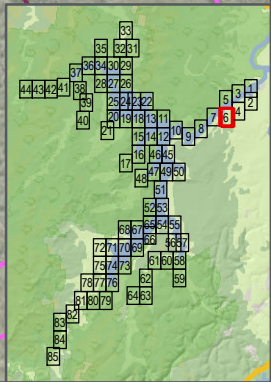
Study Area

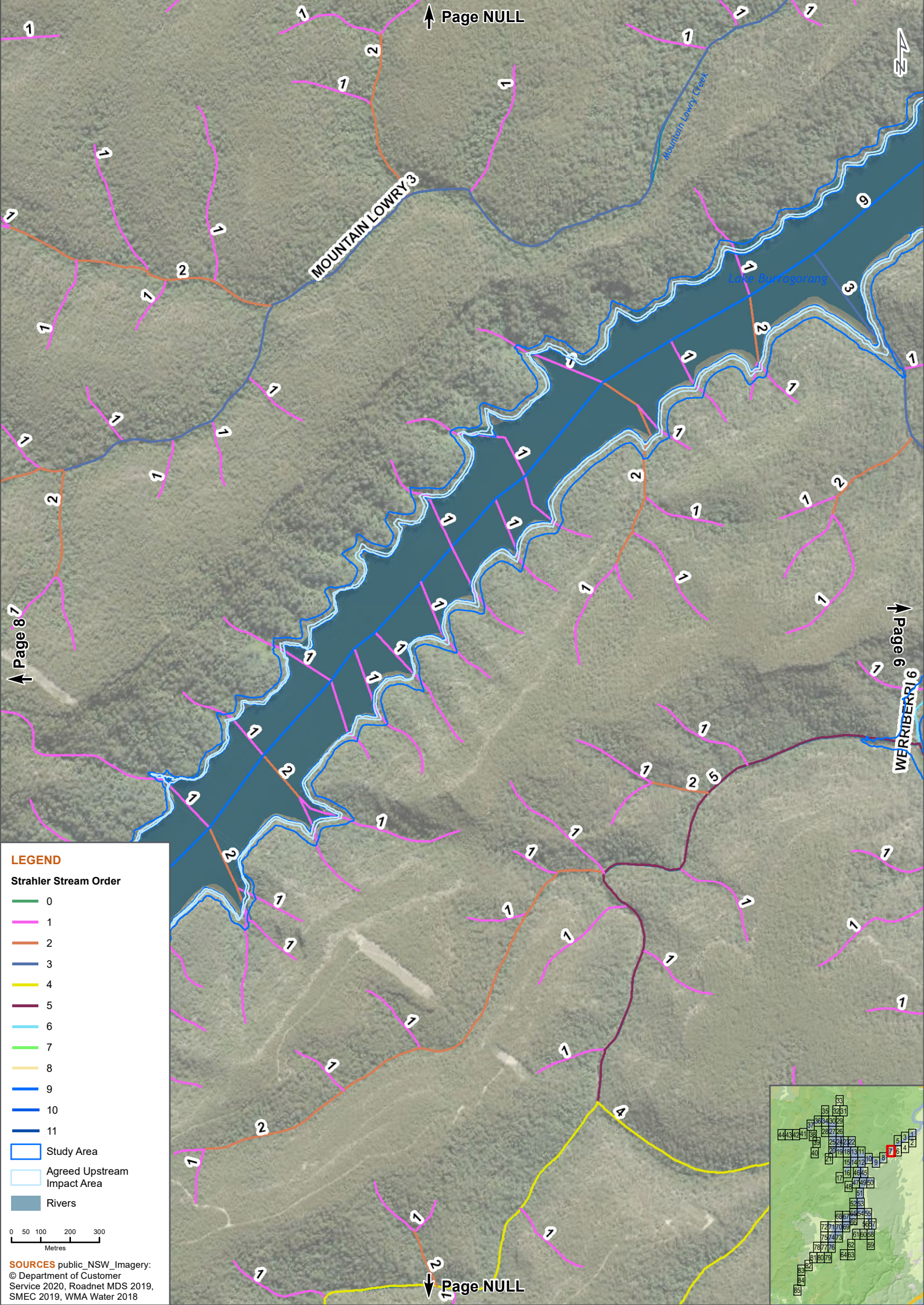
Agreed Upstream Impact Area

Rivers

0 50 100 200 300
Metres

SOURCES public_NSW_Imagery:
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018



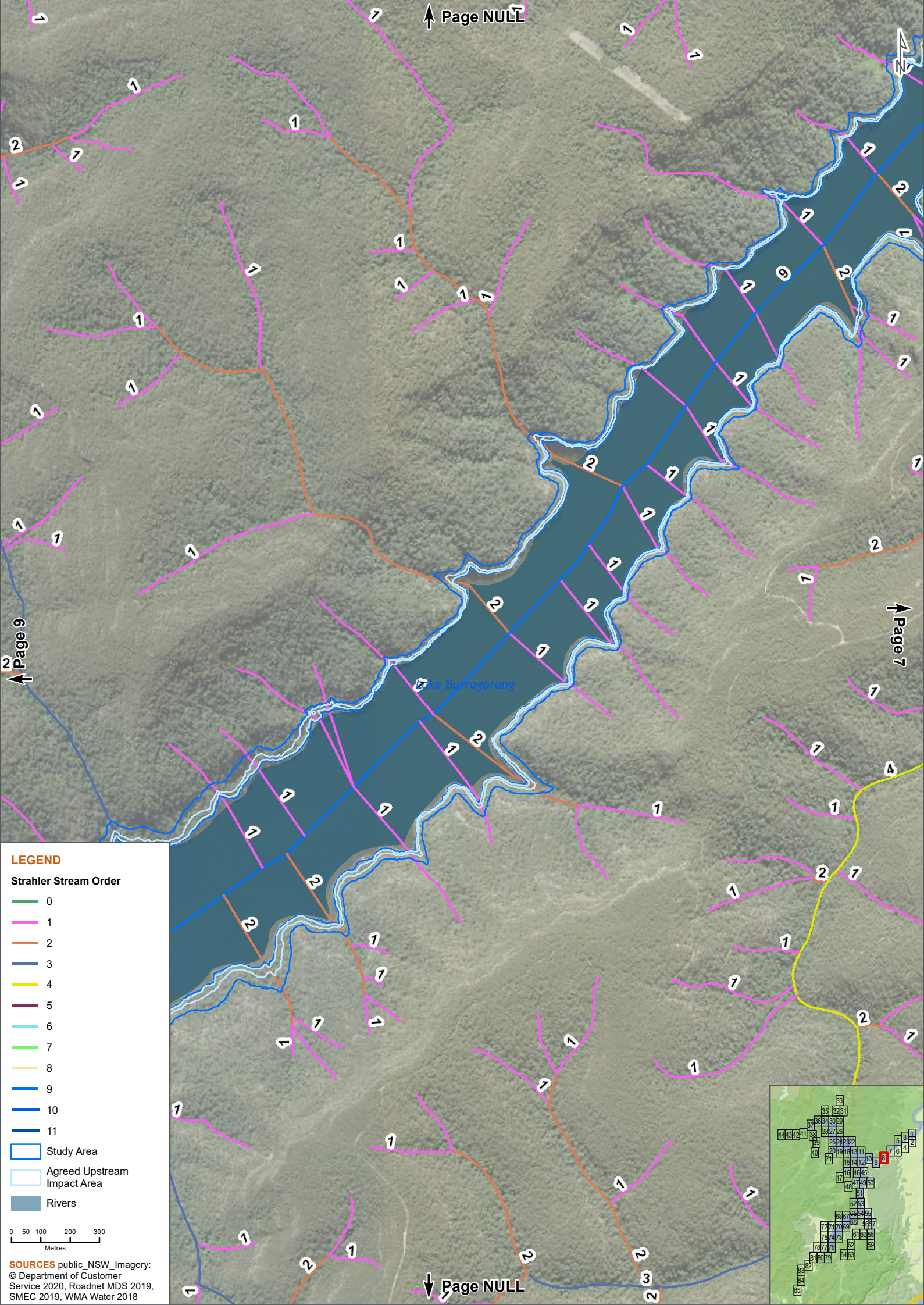


LEGEND
Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- Study Area
- Agreed Upstream Impact Area
- Rivers

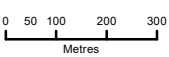
0 50 100 200 300
Metres

SOURCES public_NSW_Imagery:
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018

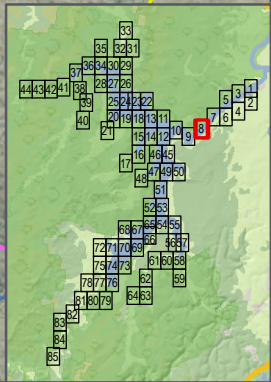


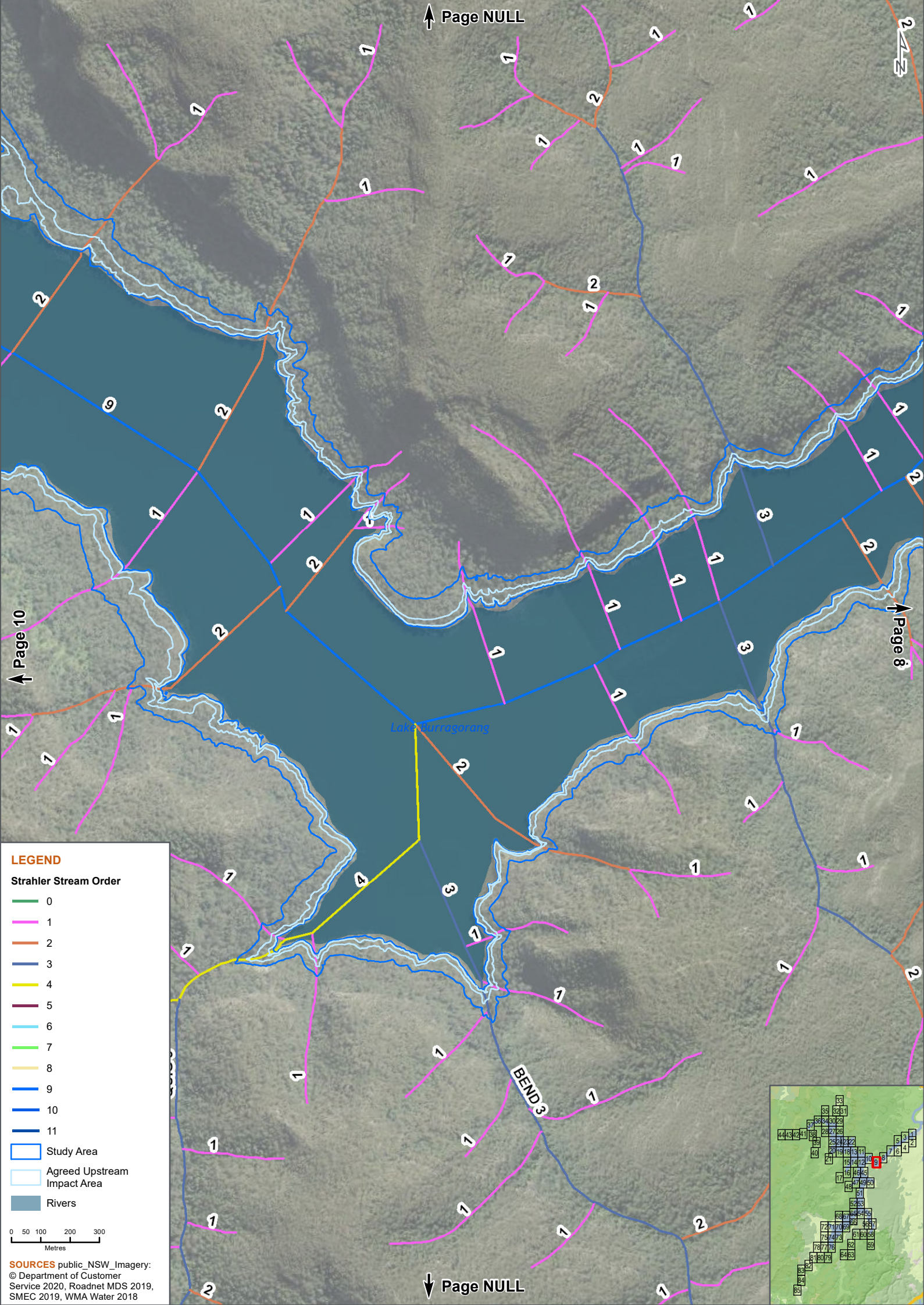
LEGEND
Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- Study Area
- Agreed Upstream Impact Area
- Rivers



SOURCES public_NSW_Imagery:
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018





Lake Narragorang

BEND 3

LEGEND

Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

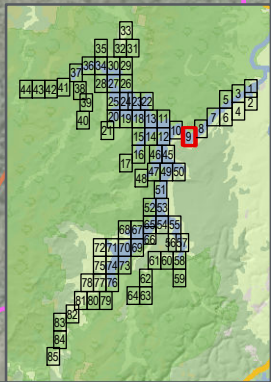
Study Area

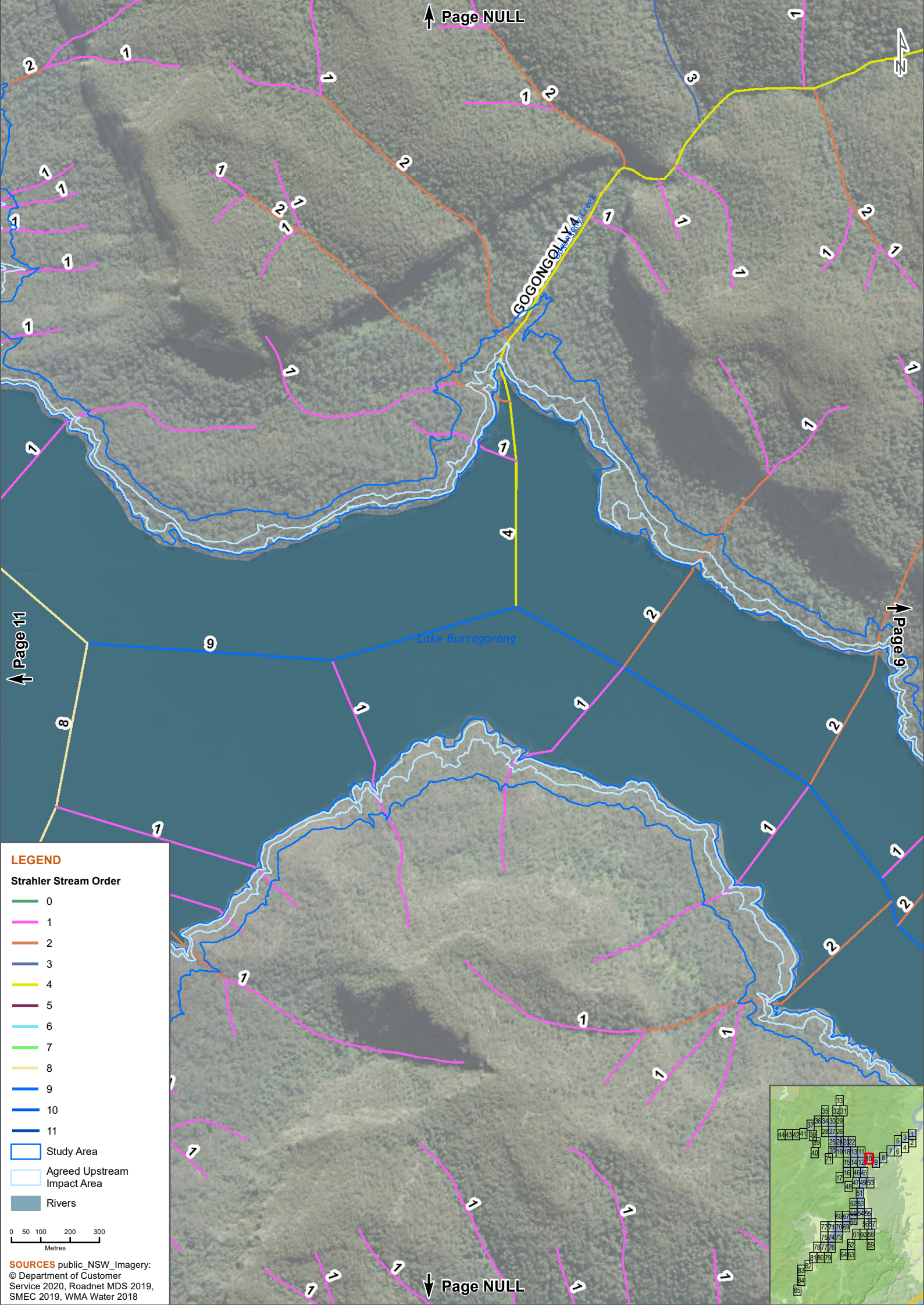
Agreed Upstream Impact Area

Rivers

0 50 100 200 300
Metres

SOURCES public_NSW_Imagery:
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018





↑ Page NULL

27

GONGOLLY 4

Lake Burragarang

↑ Page 9

↑ Page 11

LEGEND

Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Study Area

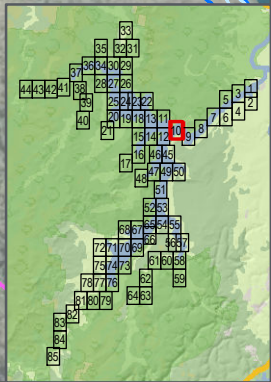
Agreed Upstream Impact Area

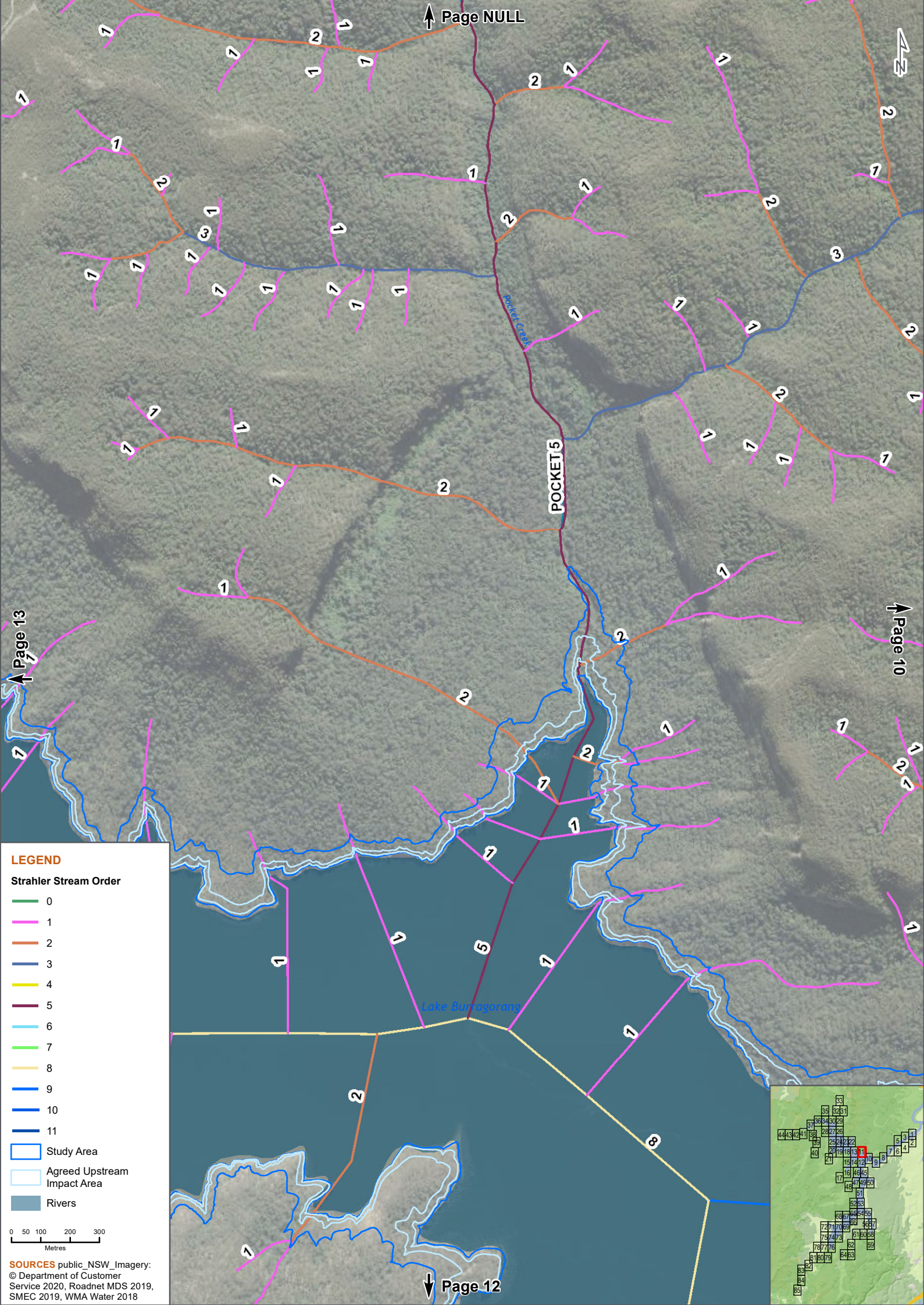
Rivers

0 50 100 200 300
Metres

SOURCES public_NSW_Imagery;
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018

↓ Page NULL





↑ Page NULL

↑ Page 13

↓ Page 10

LEGEND

Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Study Area

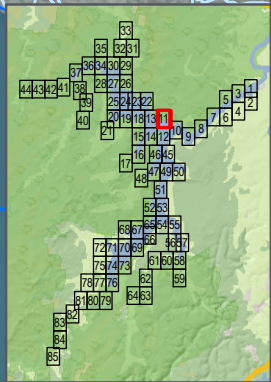
Agreed Upstream Impact Area

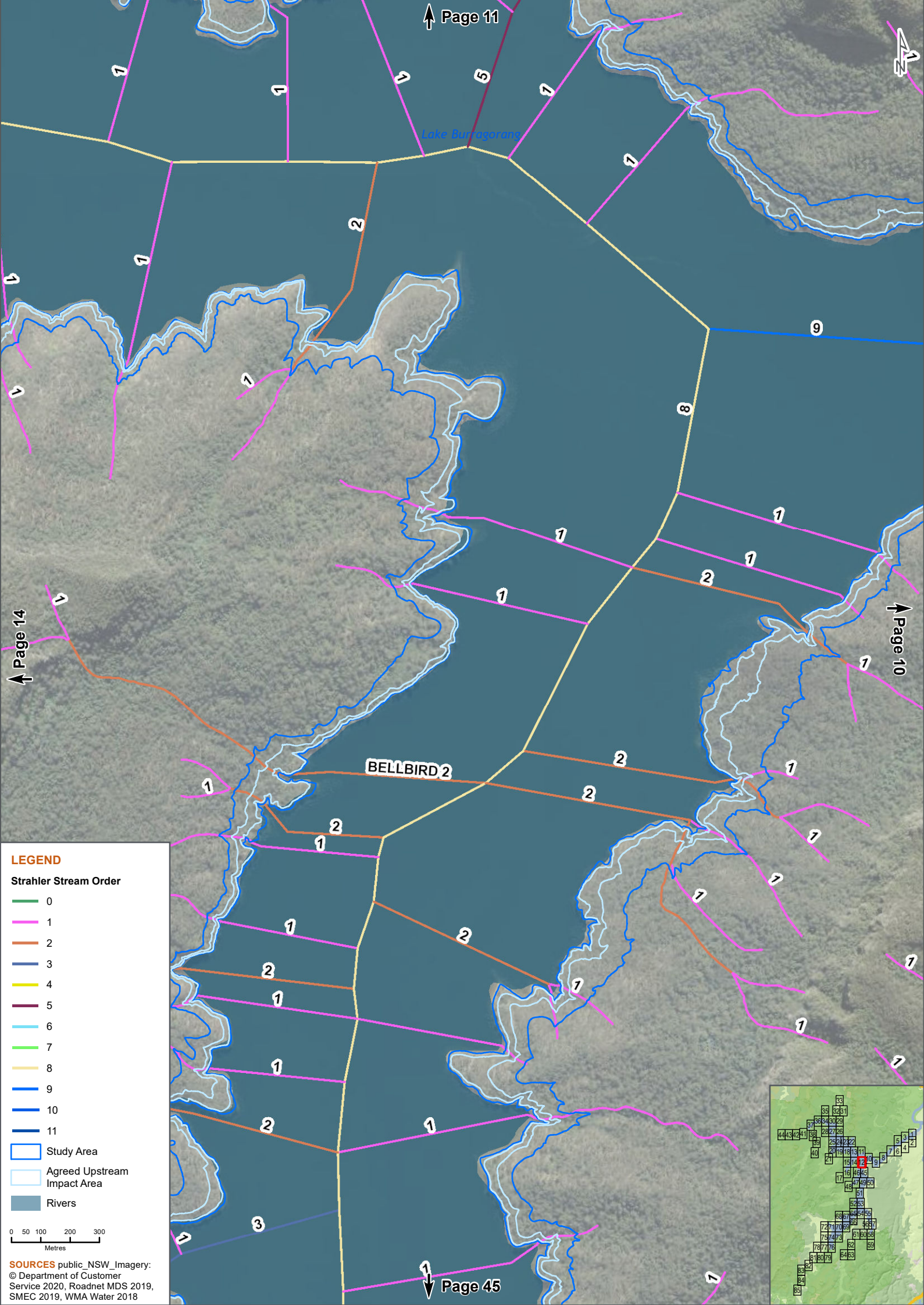
Rivers

0 50 100 200 300
Metres

SOURCES public_NSW_Imagery:
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018

↓ Page 12





Lake Burrigorang

BELLBIRD 2

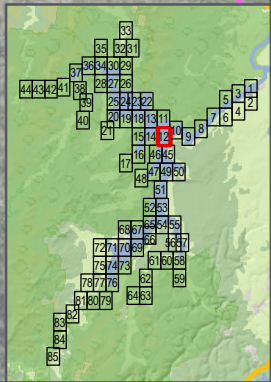
LEGEND

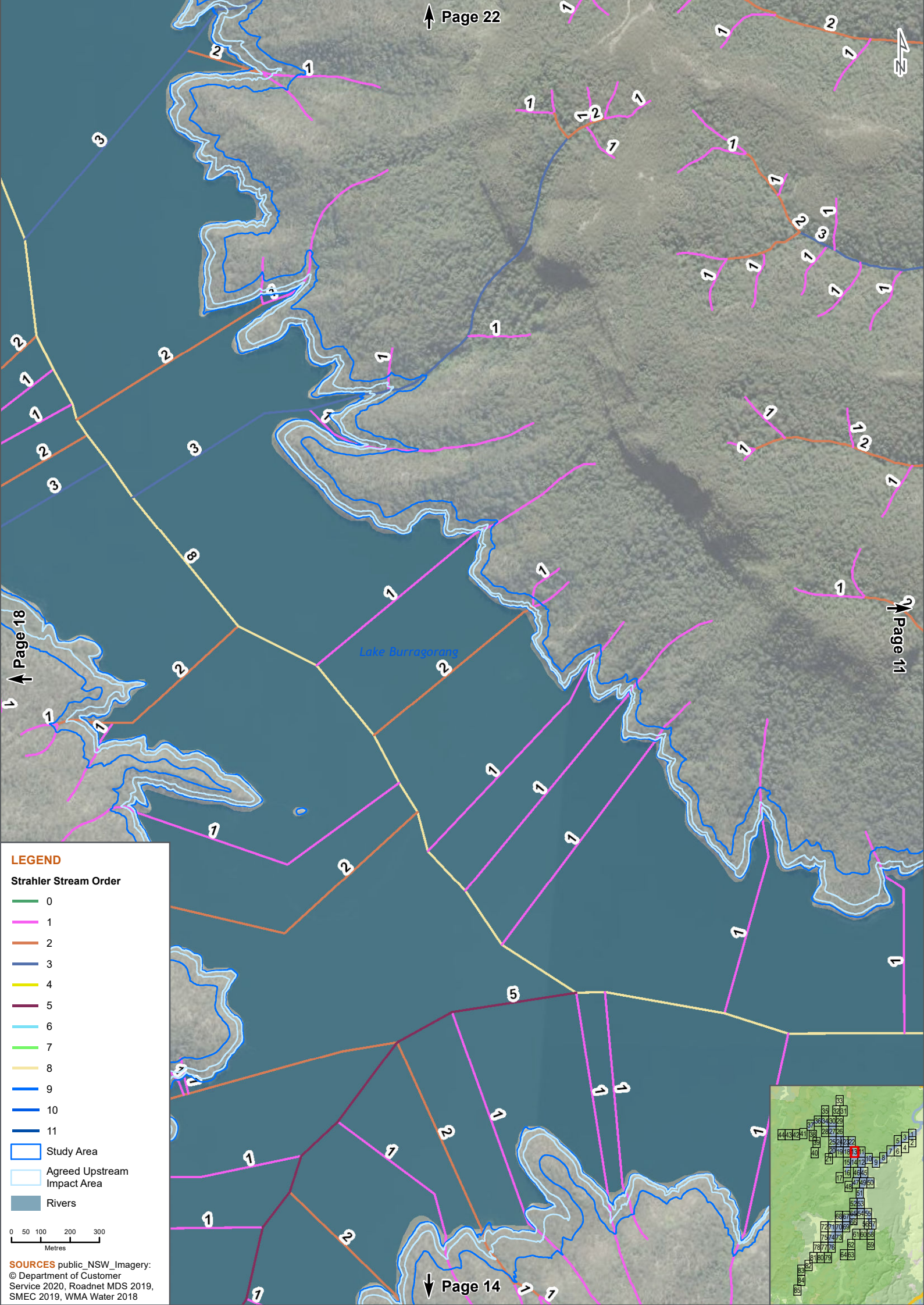
Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- Study Area
- Agreed Upstream Impact Area
- Rivers

0 50 100 200 300
Metres

SOURCES public_NSW_Imagery:
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018



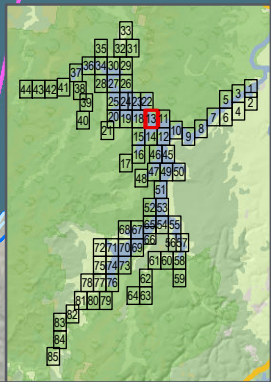


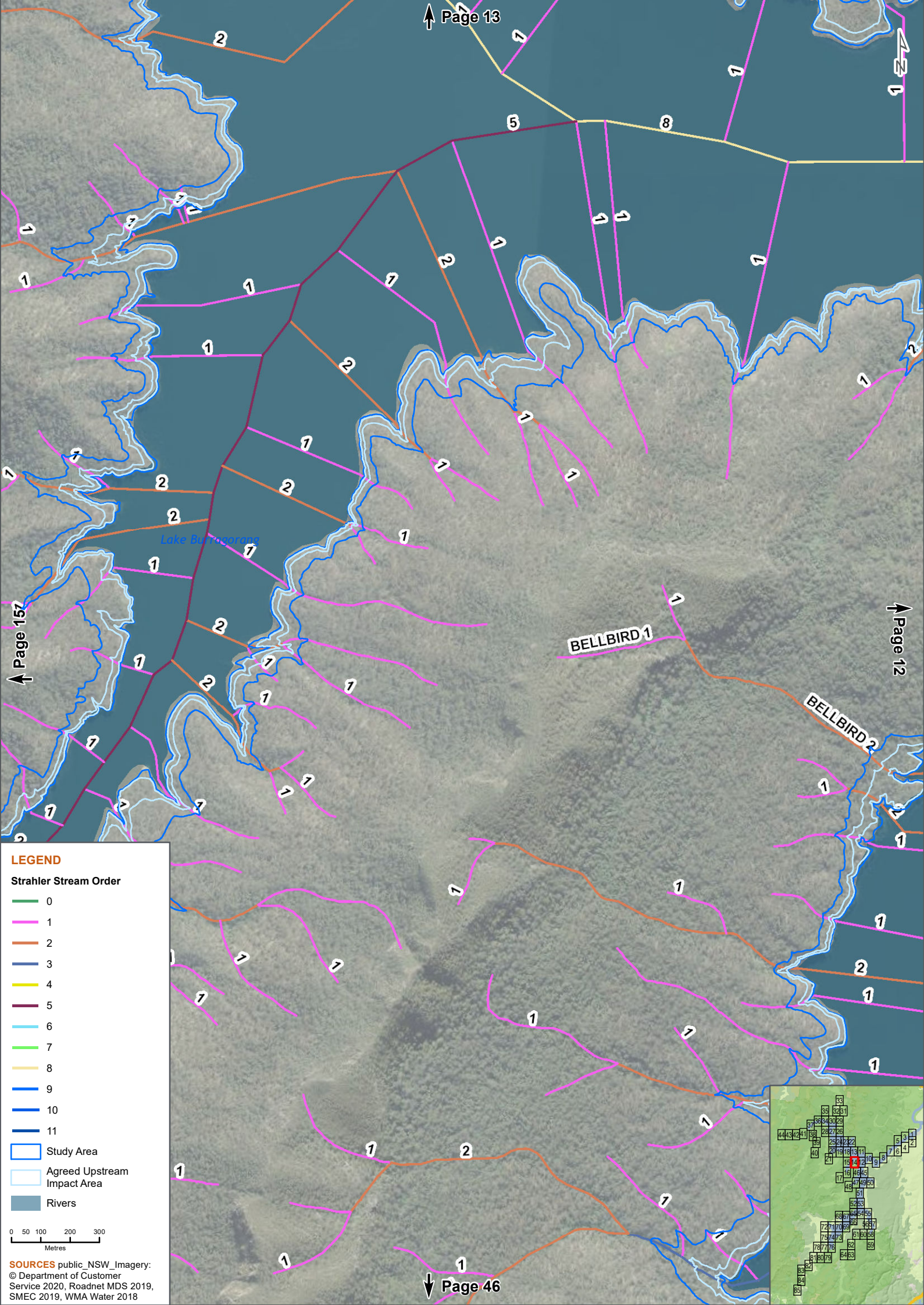
LEGEND
Strahler Stream Order

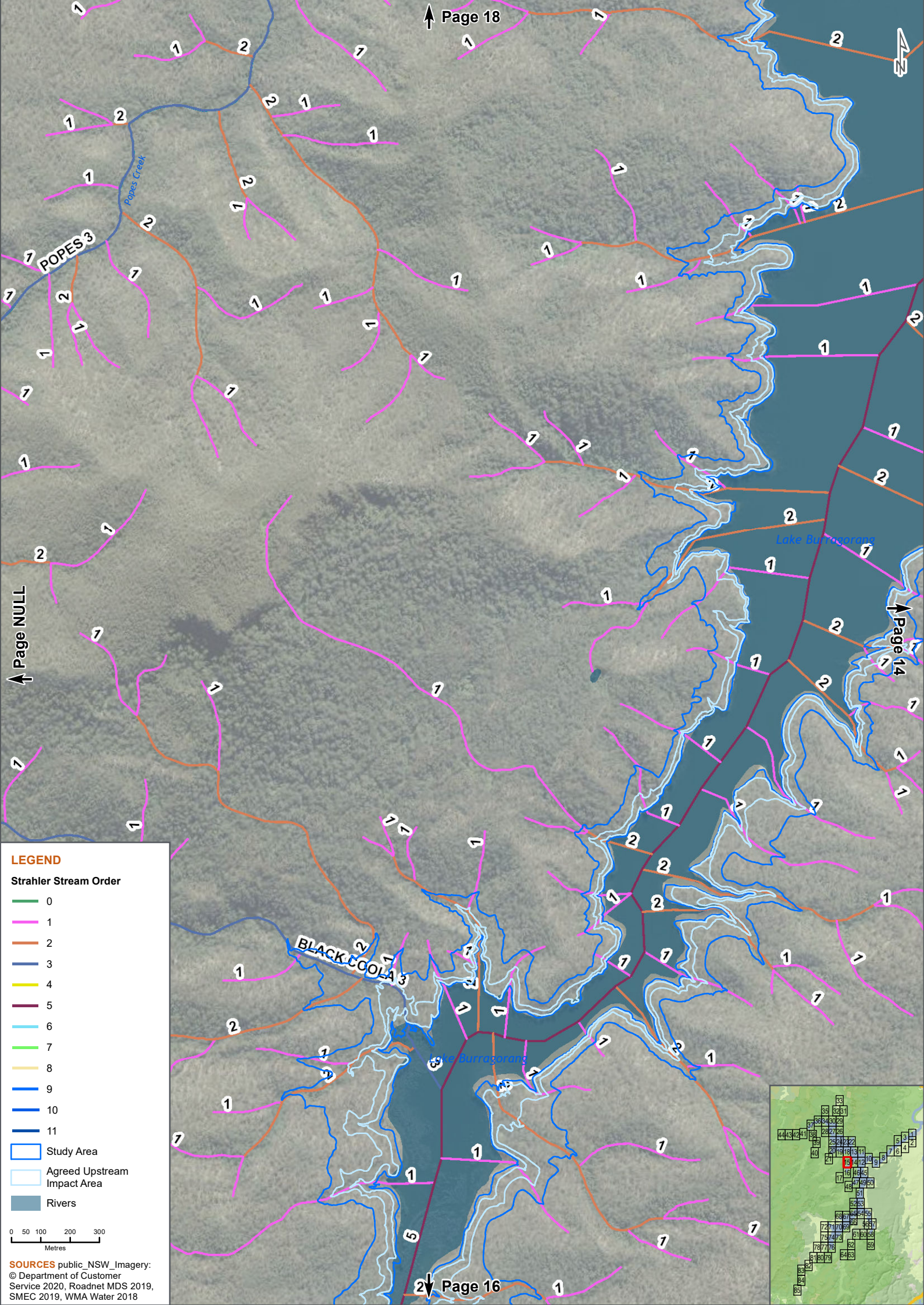
- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- Study Area
- Agreed Upstream Impact Area
- Rivers

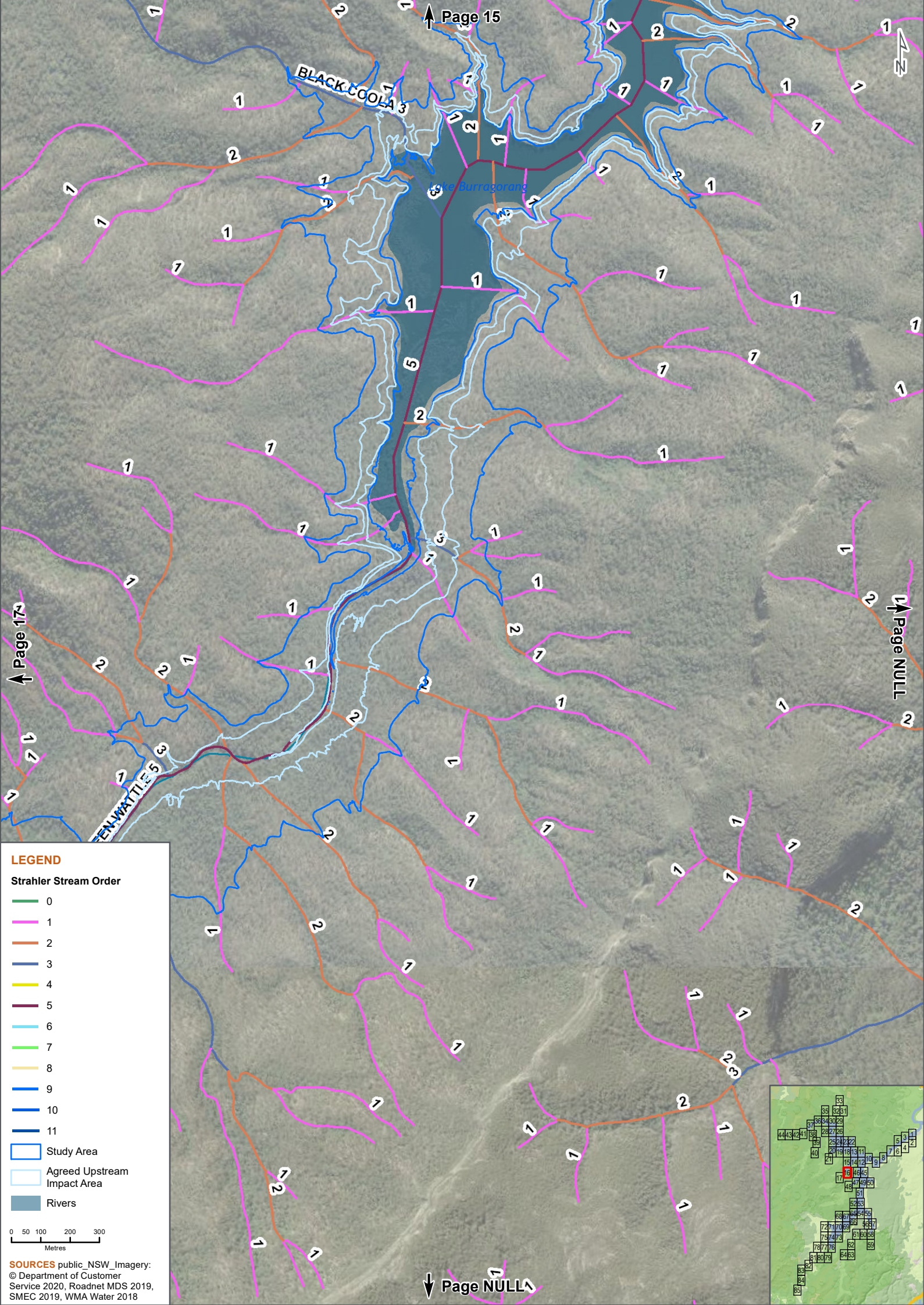
0 50 100 200 300
Metres

SOURCES public_NSW_Imagery;
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018









↑ Page 15

↑ Page 17

↑ Page NULL

↓ Page NULL

BLACK COOLA

Laka Burraborang

WENTWATTLE

LEGEND

Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

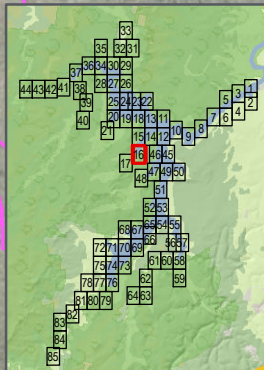
Study Area

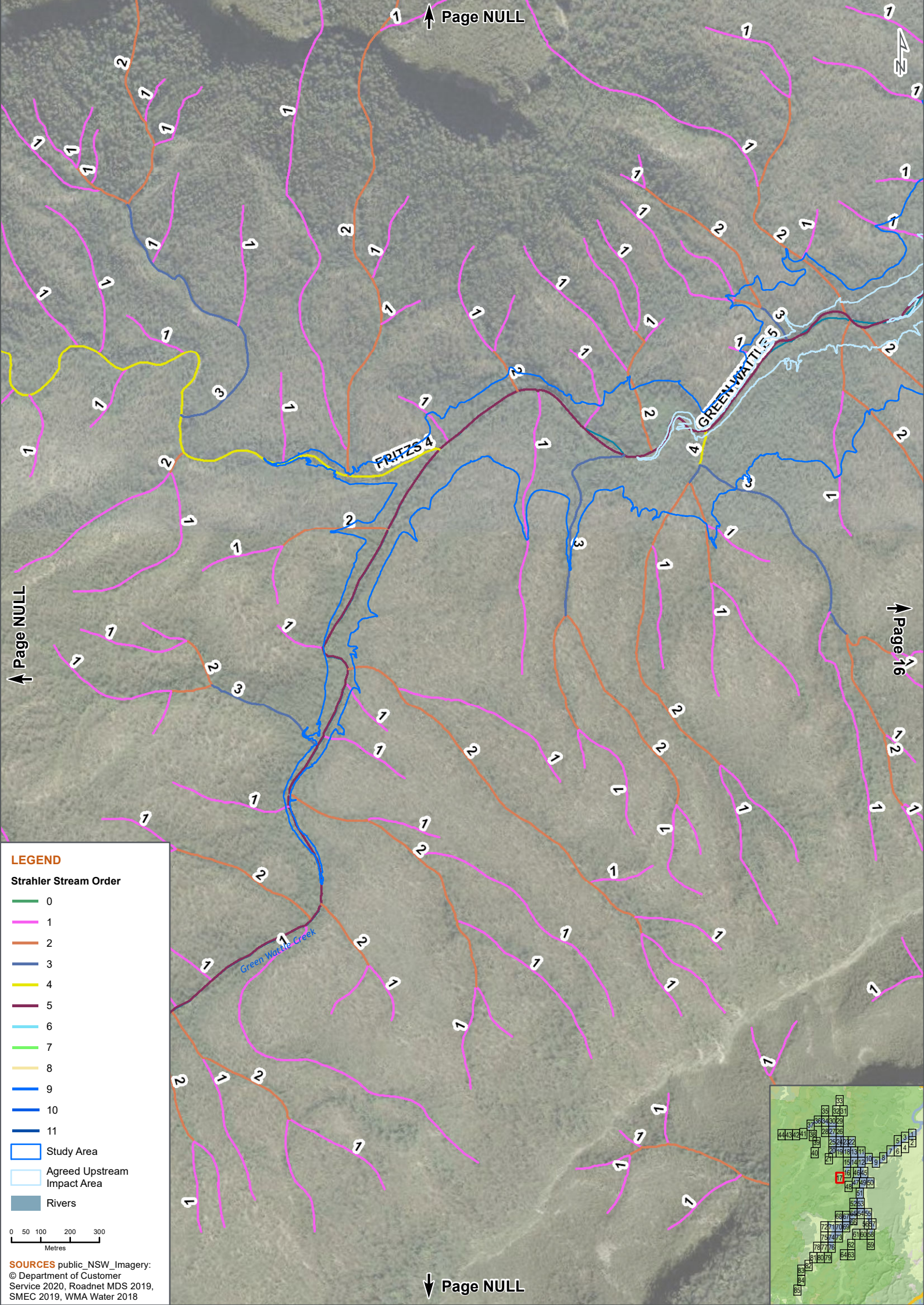
Agreed Upstream Impact Area

Rivers

0 50 100 200 300 Metres

SOURCES public_NSW_Imagery:
© Department of Customer Service 2020, Roadnet MDS 2019, SMEC 2019, WMA Water 2018





LEGEND

Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- Study Area
- Agreed Upstream Impact Area
- Rivers

0 50 100 200 300
Metres

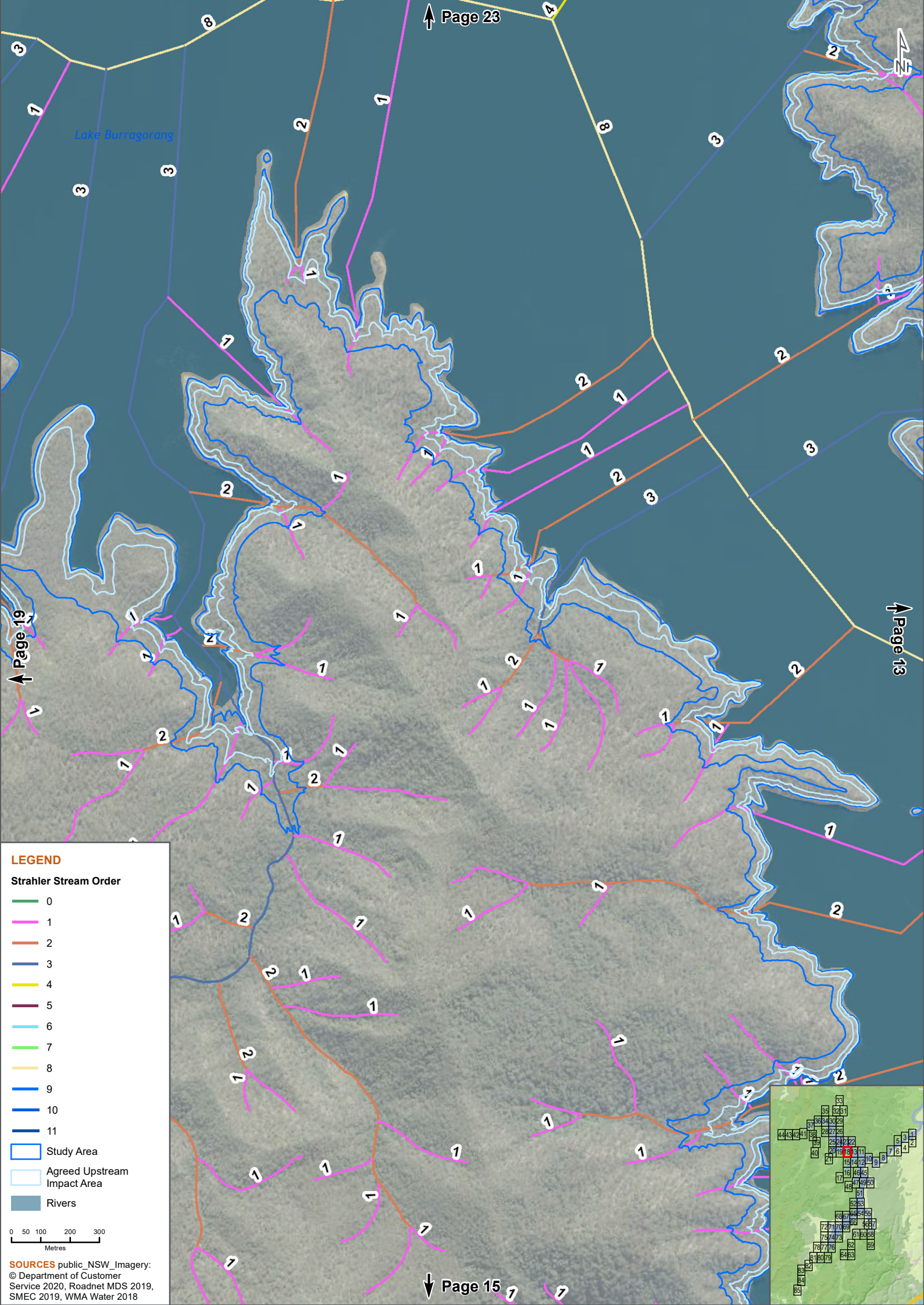
SOURCES public_NSW_Imagery:
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018

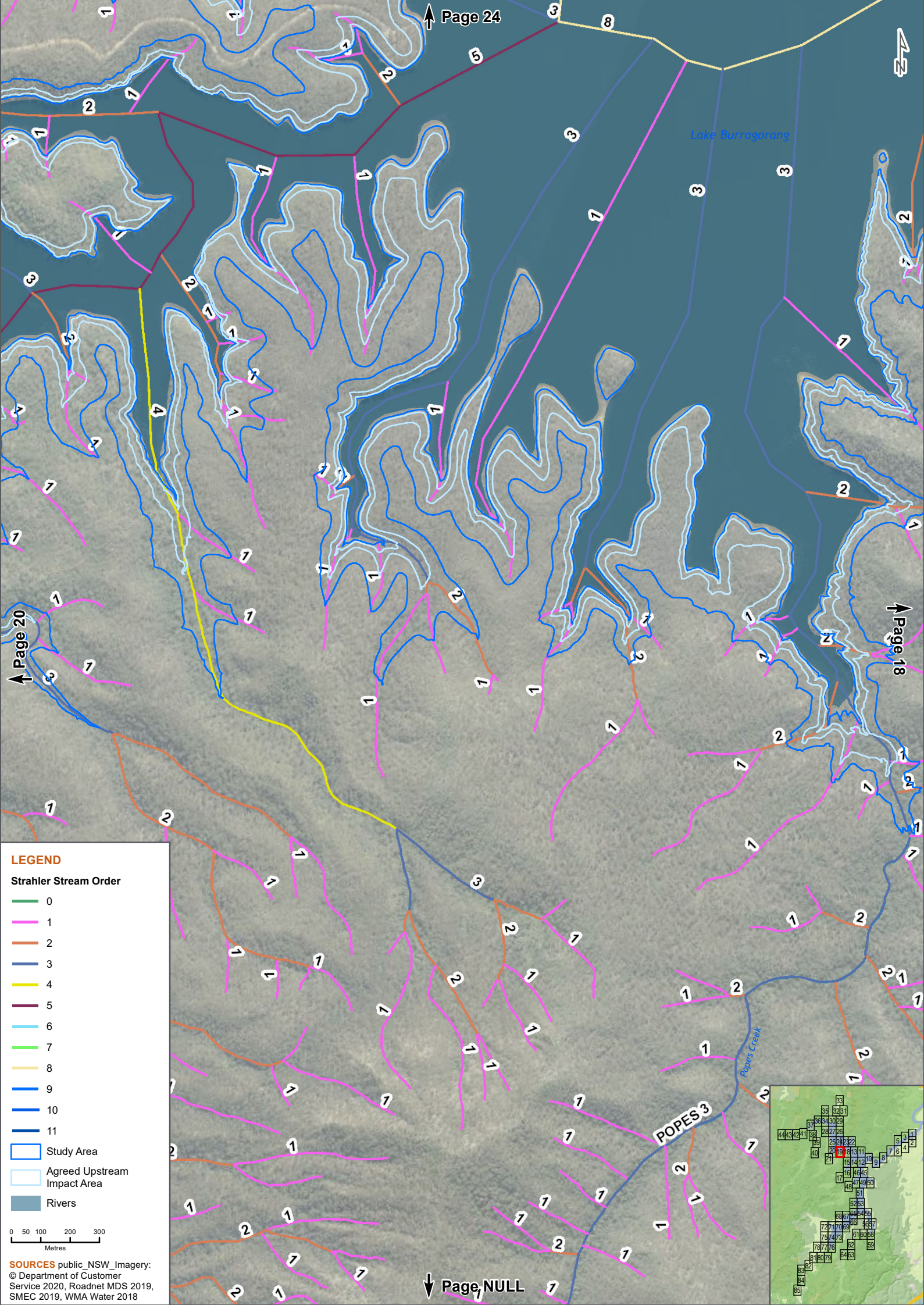
Page NULL

Page NULL

Page NULL

Page 16





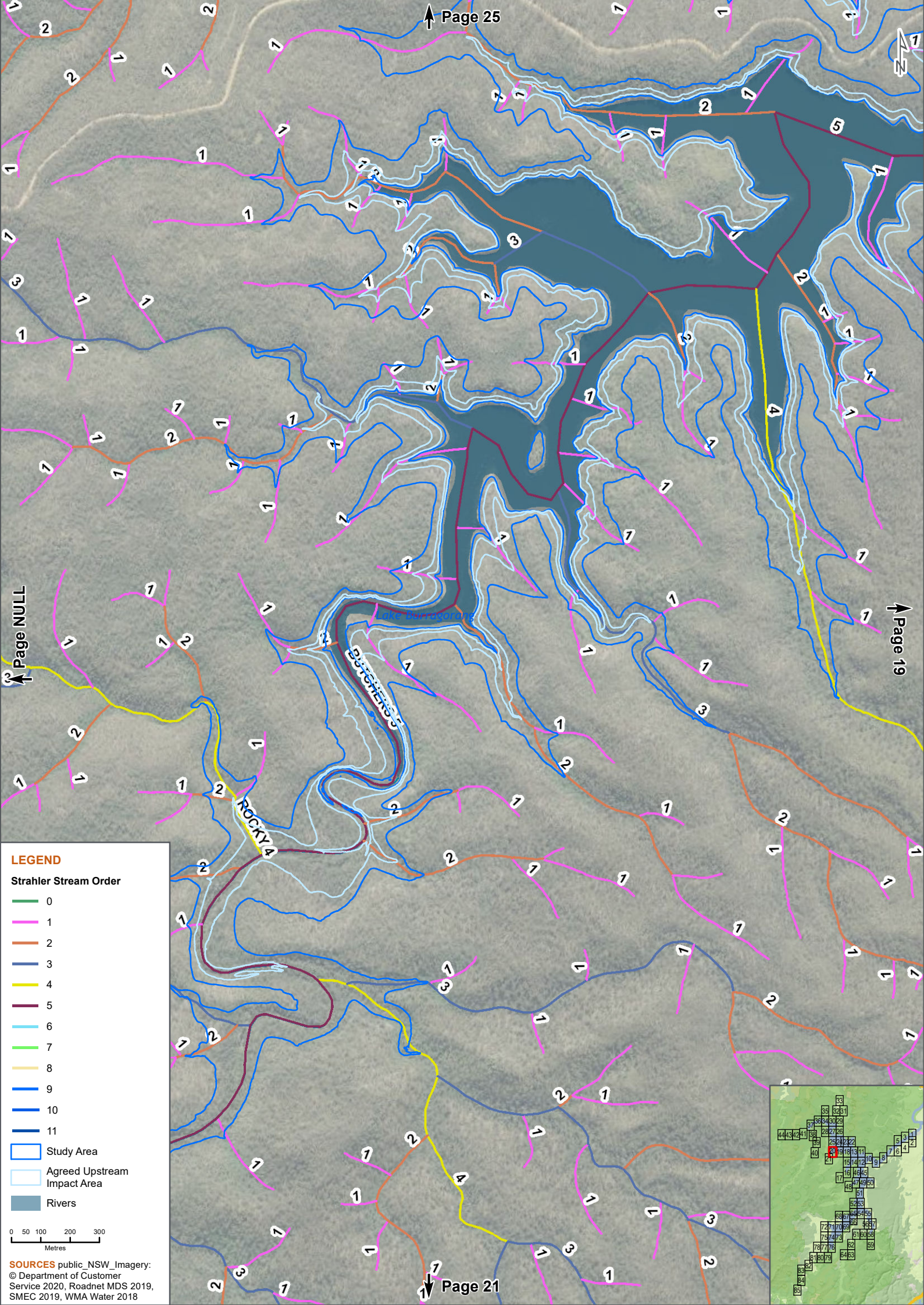
LEGEND

Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- Study Area
- Agreed Upstream Impact Area
- Rivers

0 50 100 200 300
Metres

SOURCES public_NSW_Imagery;
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018

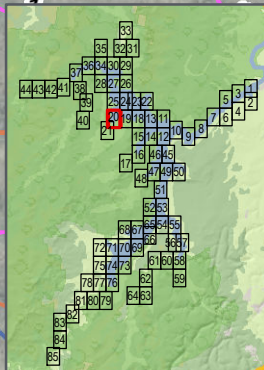


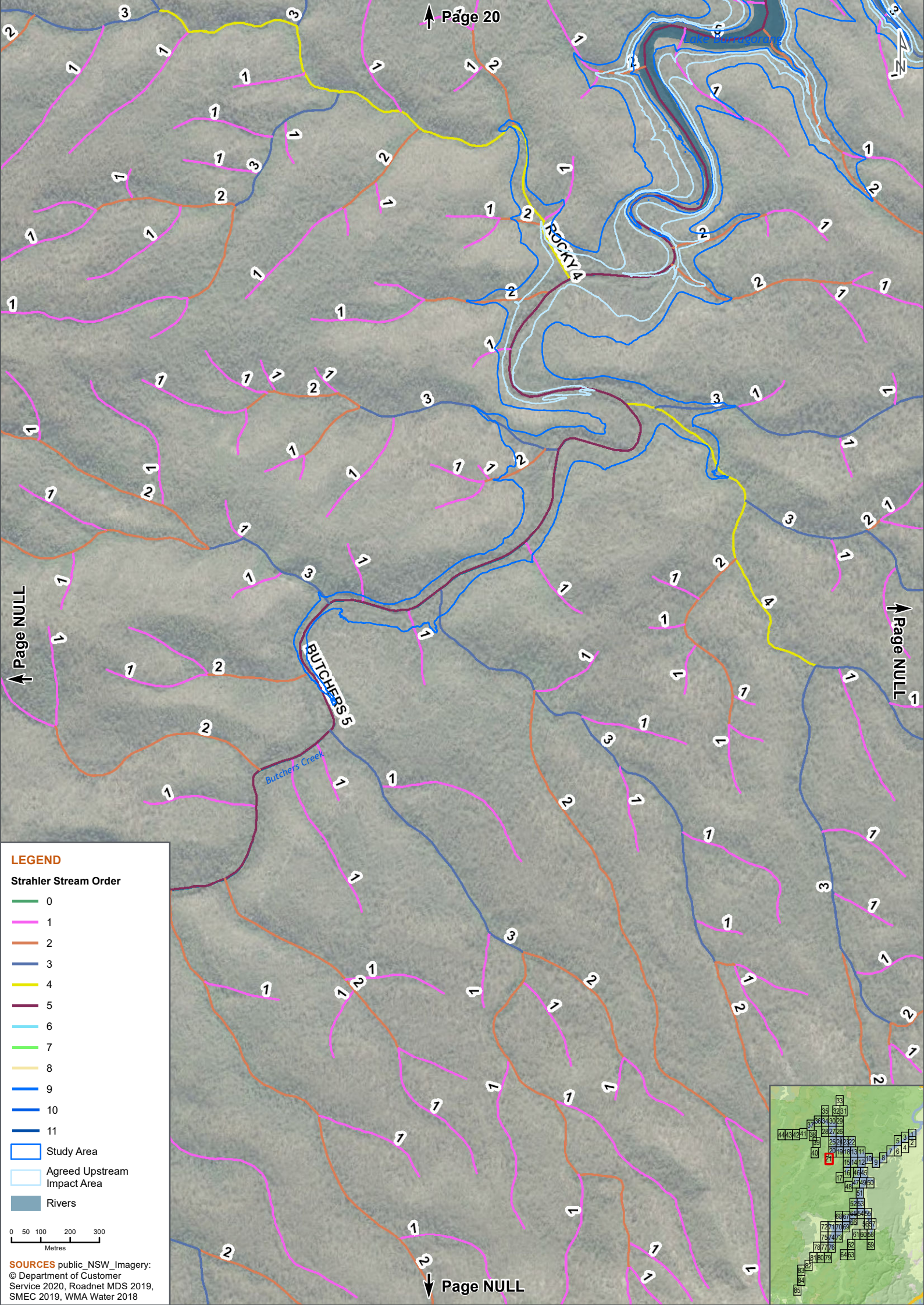
LEGEND
Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- Study Area
- Agreed Upstream Impact Area
- Rivers

0 50 100 200 300
Metres

SOURCES public_NSW_Imagery;
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018



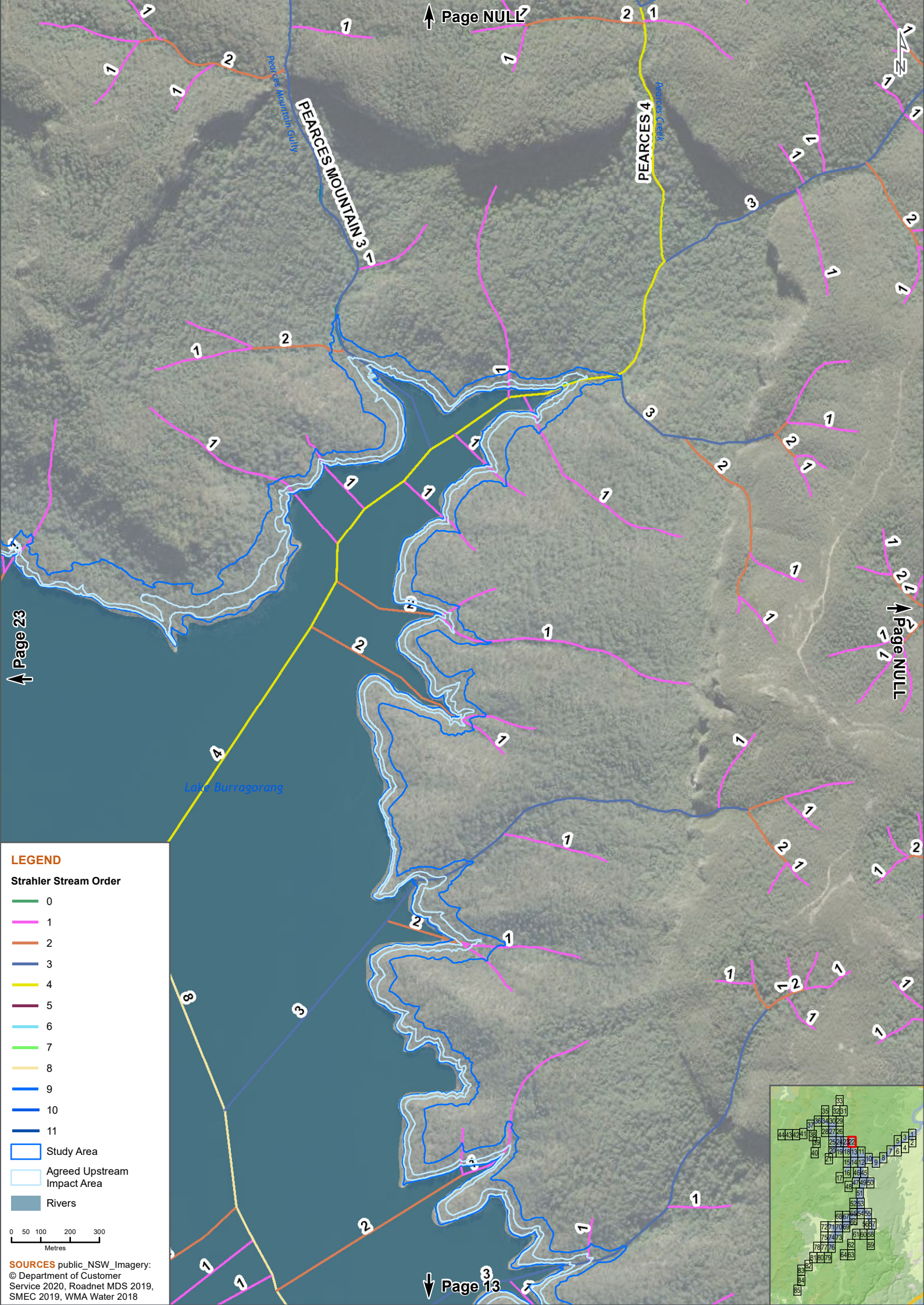


LEGEND

Strahler Stream Order

- 0
1
2
3
4
5
6
7
8
9
10
11
- Study Area
Agreed Upstream Impact Area
Rivers

SOURCES public_NSW_Imagery:
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018



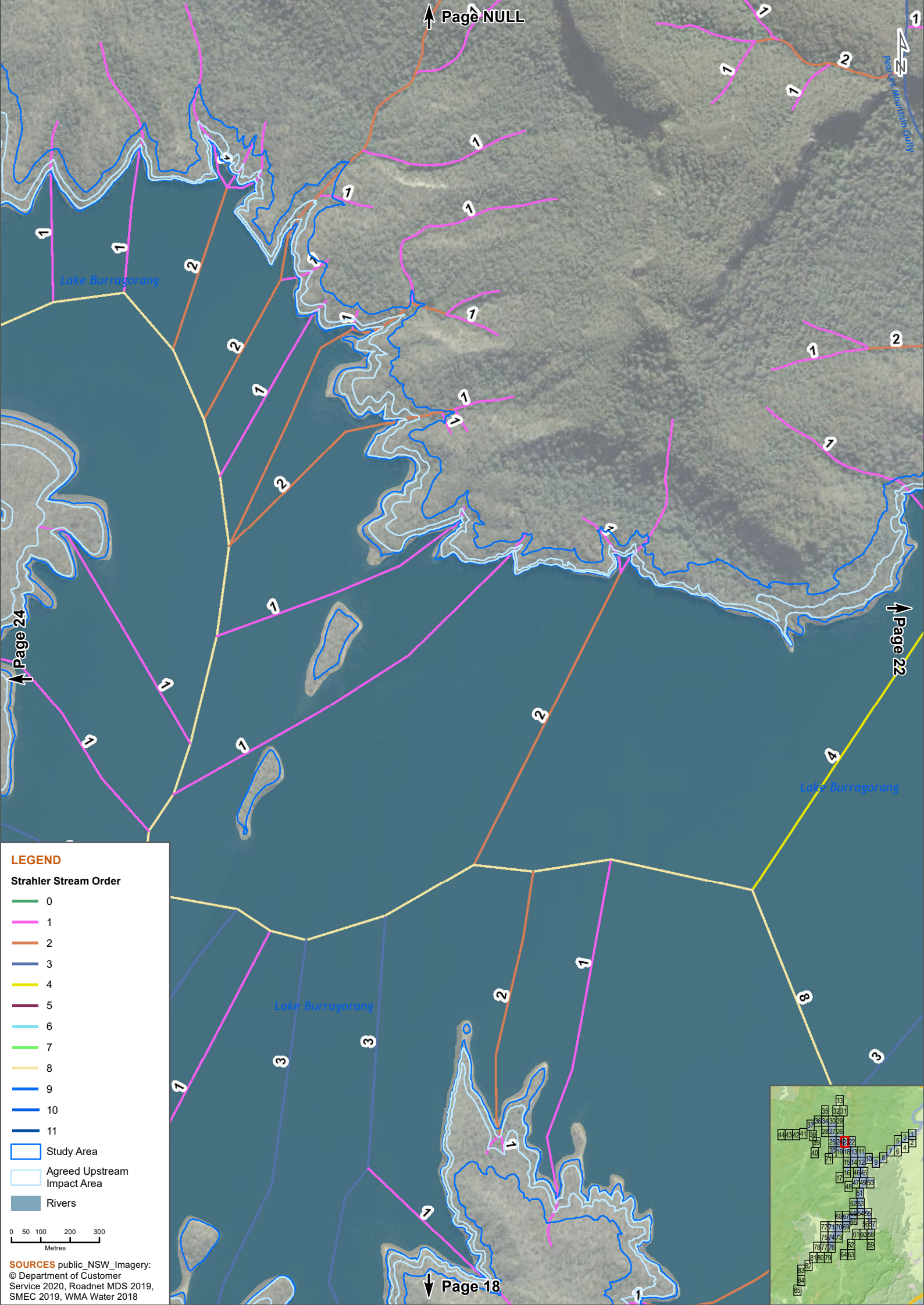
LEGEND

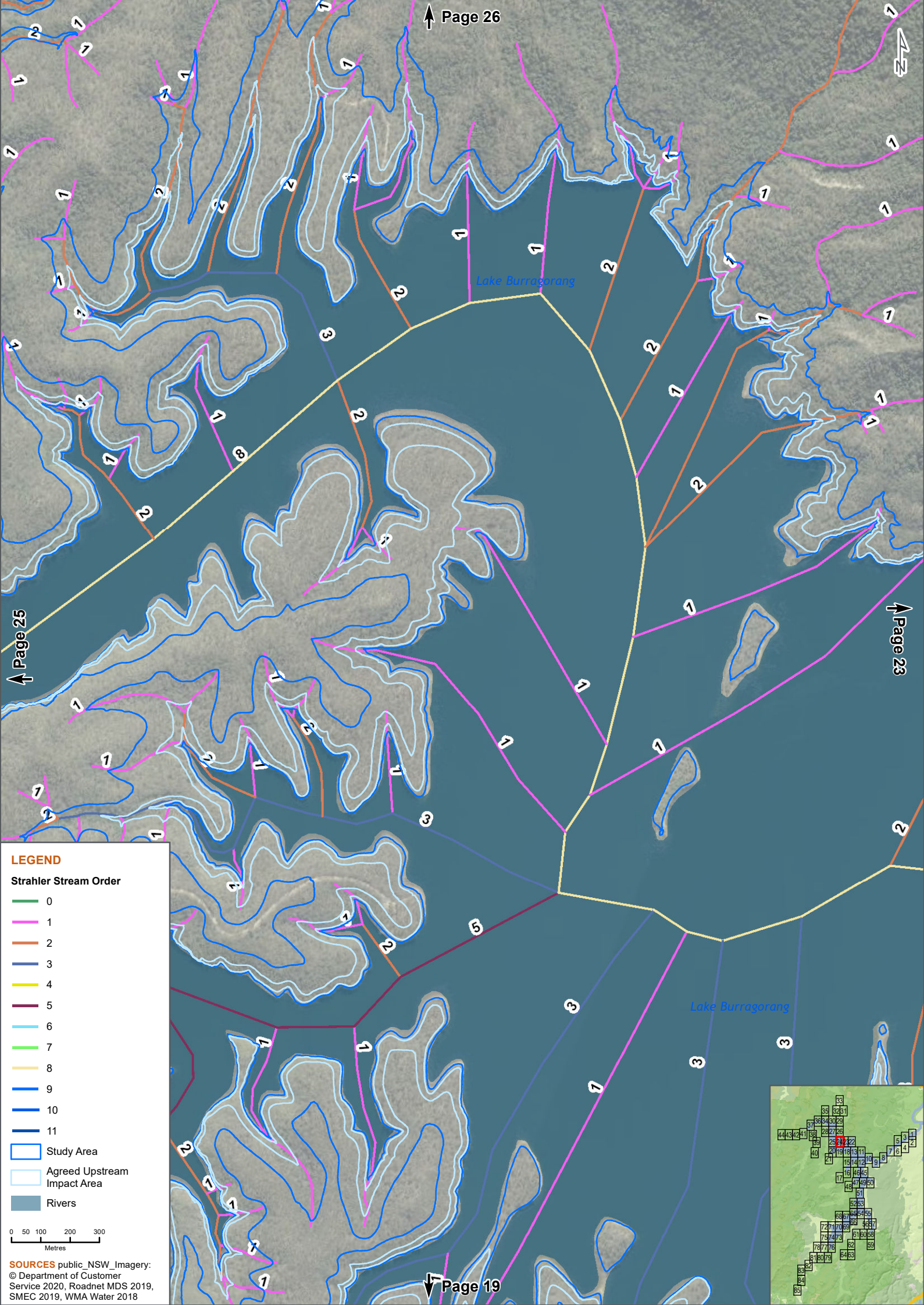
Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- Study Area
- Agreed Upstream Impact Area
- Rivers

0 50 100 200 300
Metres

SOURCES public_NSW_Imagery:
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018





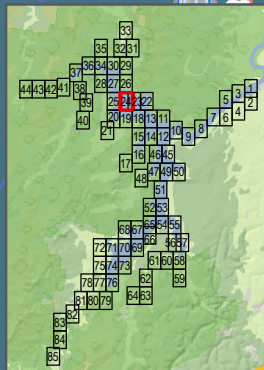
LEGEND

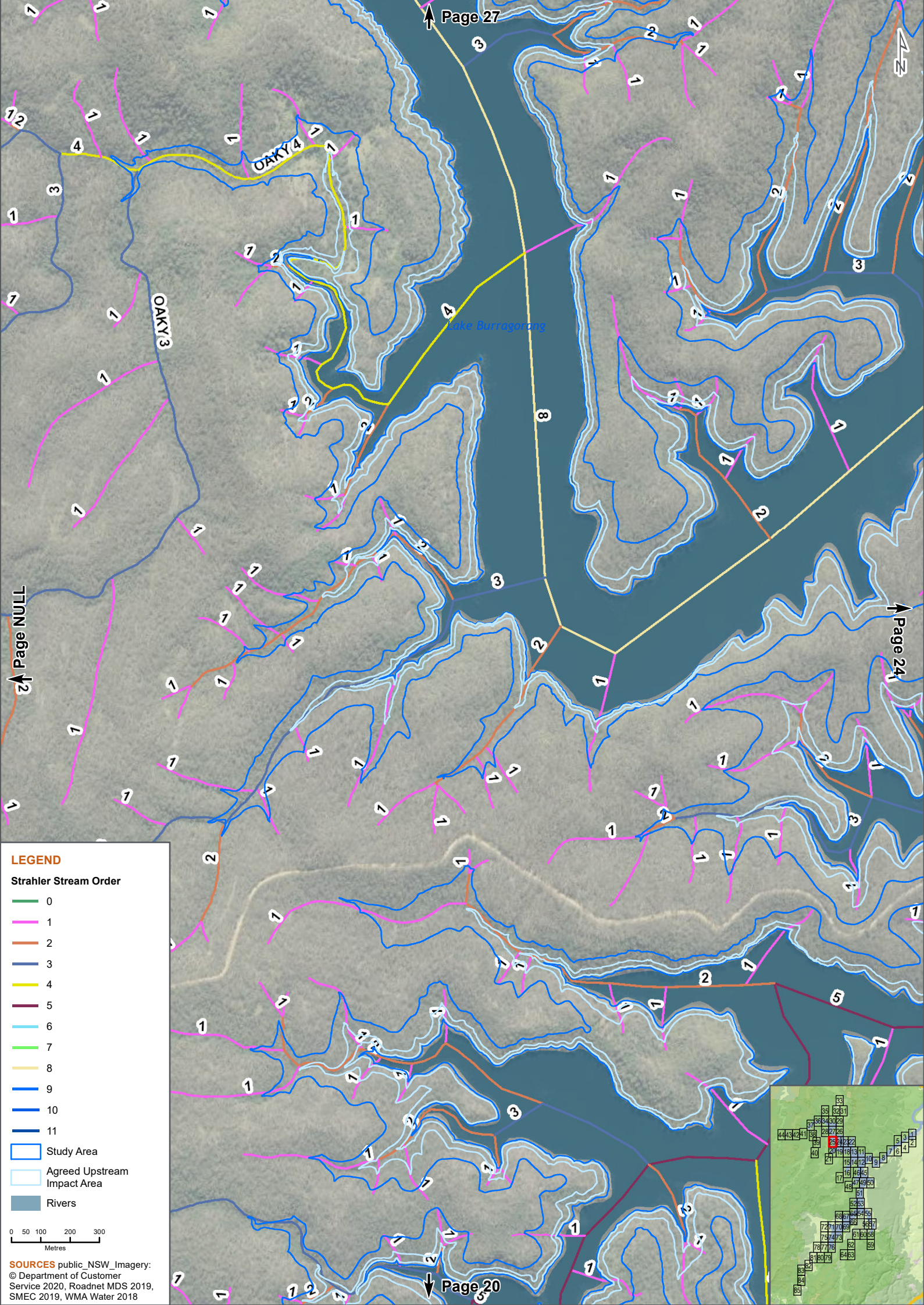
Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- Study Area
- Agreed Upstream Impact Area
- Rivers

0 50 100 200 300
Metres

SOURCES public_NSW_Imagery:
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018





LEGEND

Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

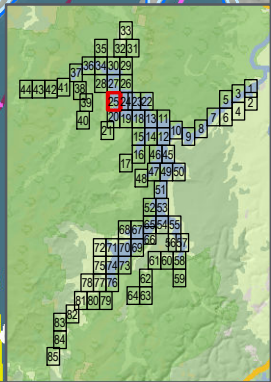
Study Area

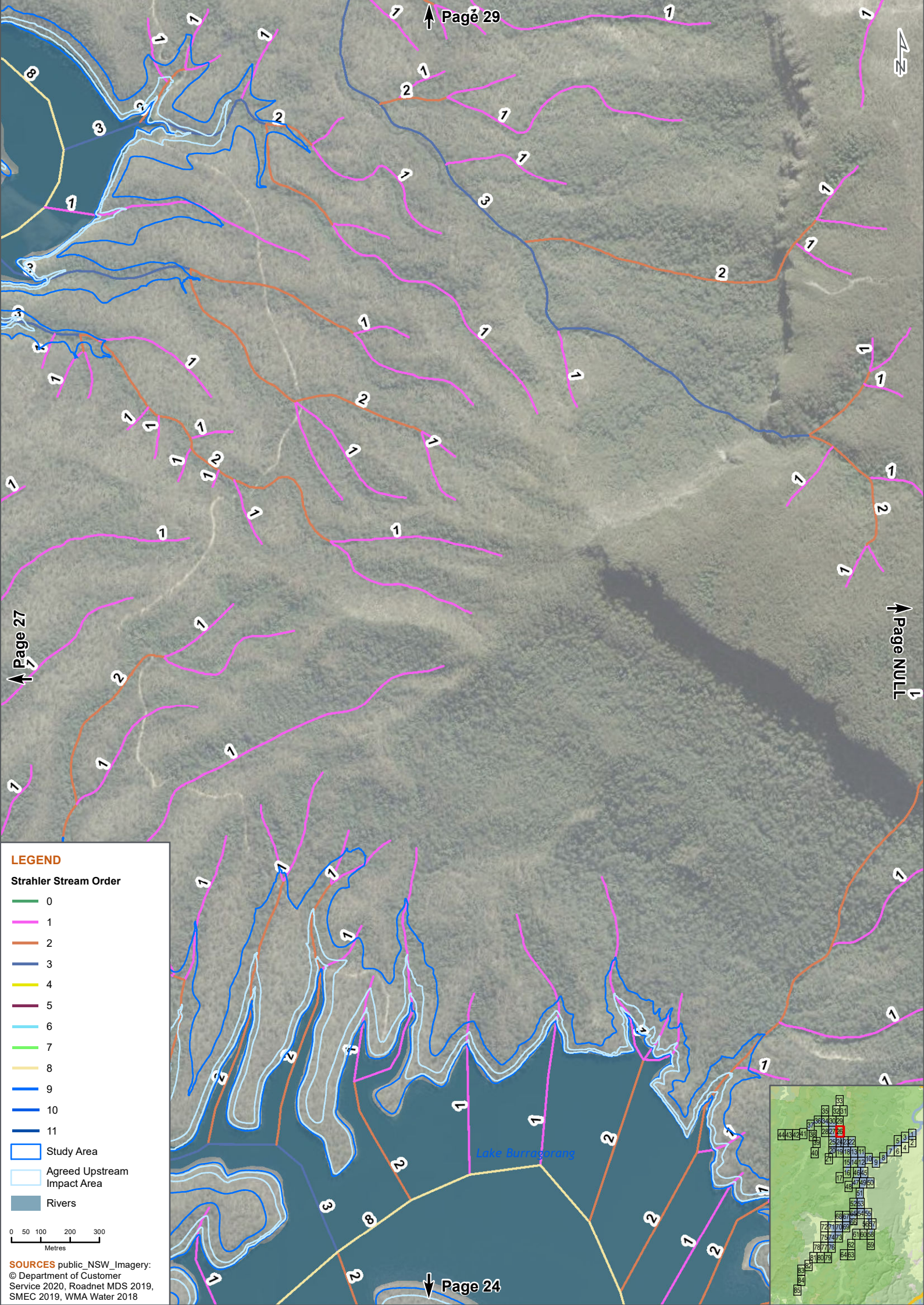
Agreed Upstream Impact Area

Rivers

0 50 100 200 300
Metres

SOURCES public_NSW_Imagery;
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018





LEGEND

Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

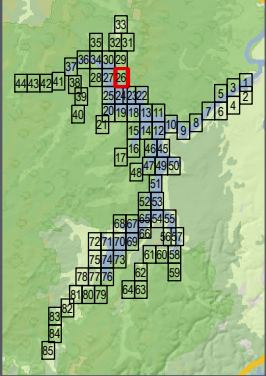
Study Area

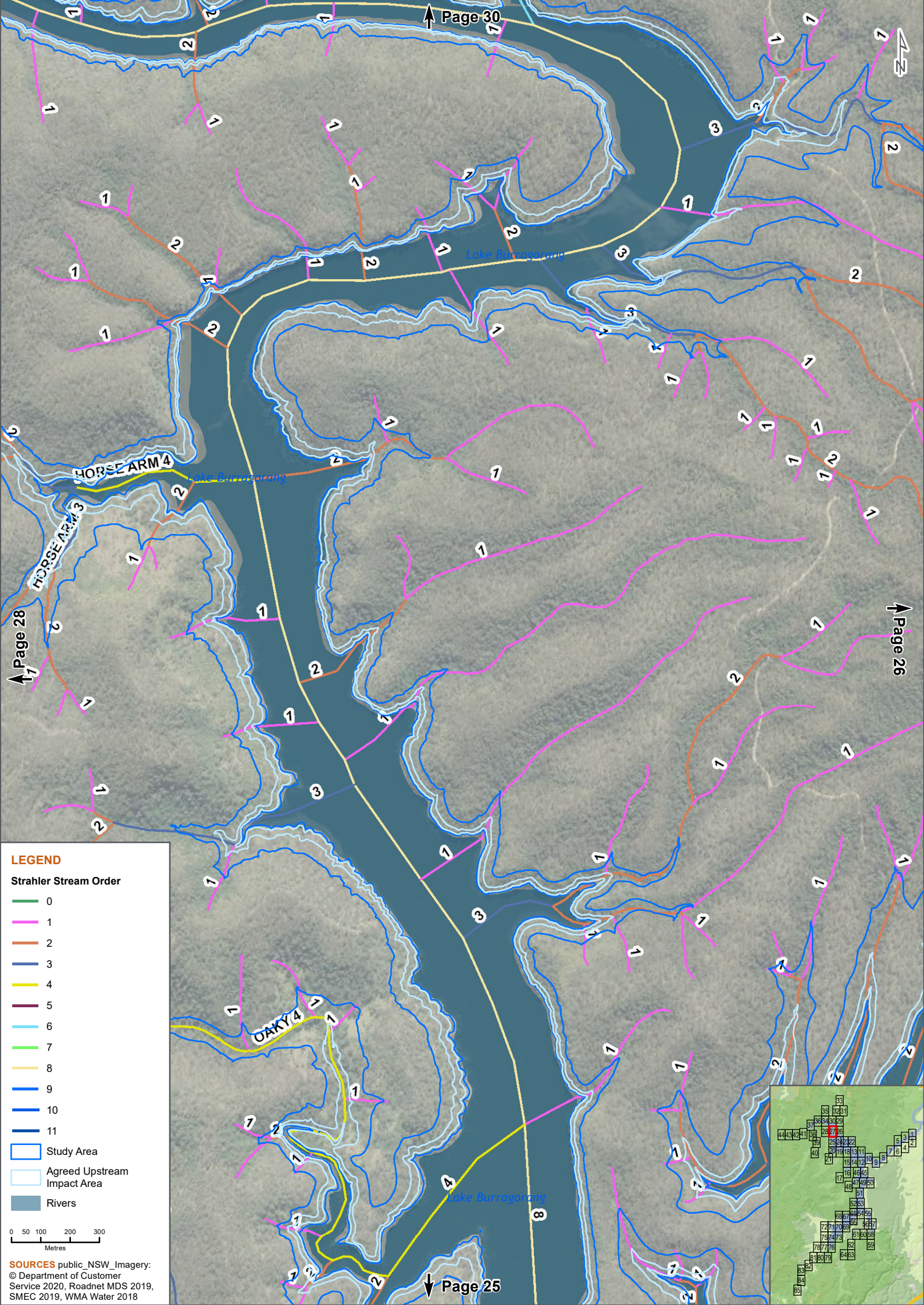
Agreed Upstream Impact Area

Rivers

0 50 100 200 300 Metres

SOURCES public_NSW_Imagery;
© Department of Customer Service 2020, Roadnet MDS 2019, SMEC 2019, WMA Water 2018





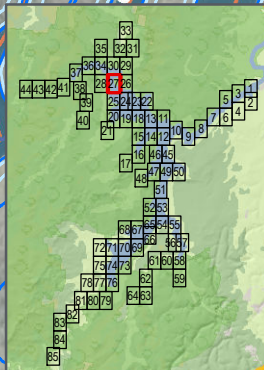
LEGEND

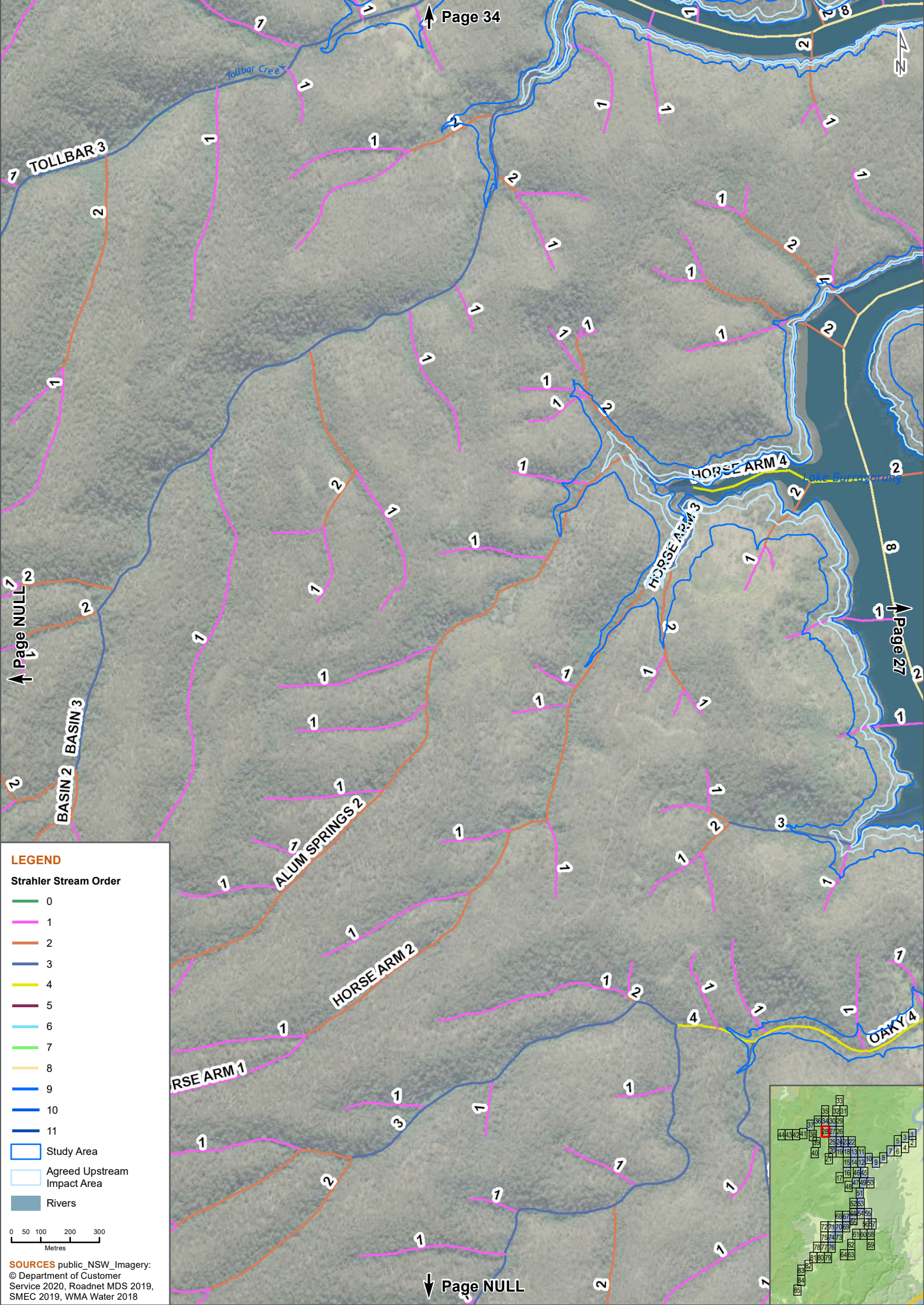
Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- Study Area
- Agreed Upstream Impact Area
- Rivers

0 50 100 200 300
Metres

SOURCES public_NSW_Imagery;
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018





LEGEND

Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

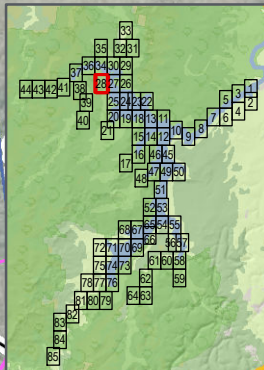
Study Area

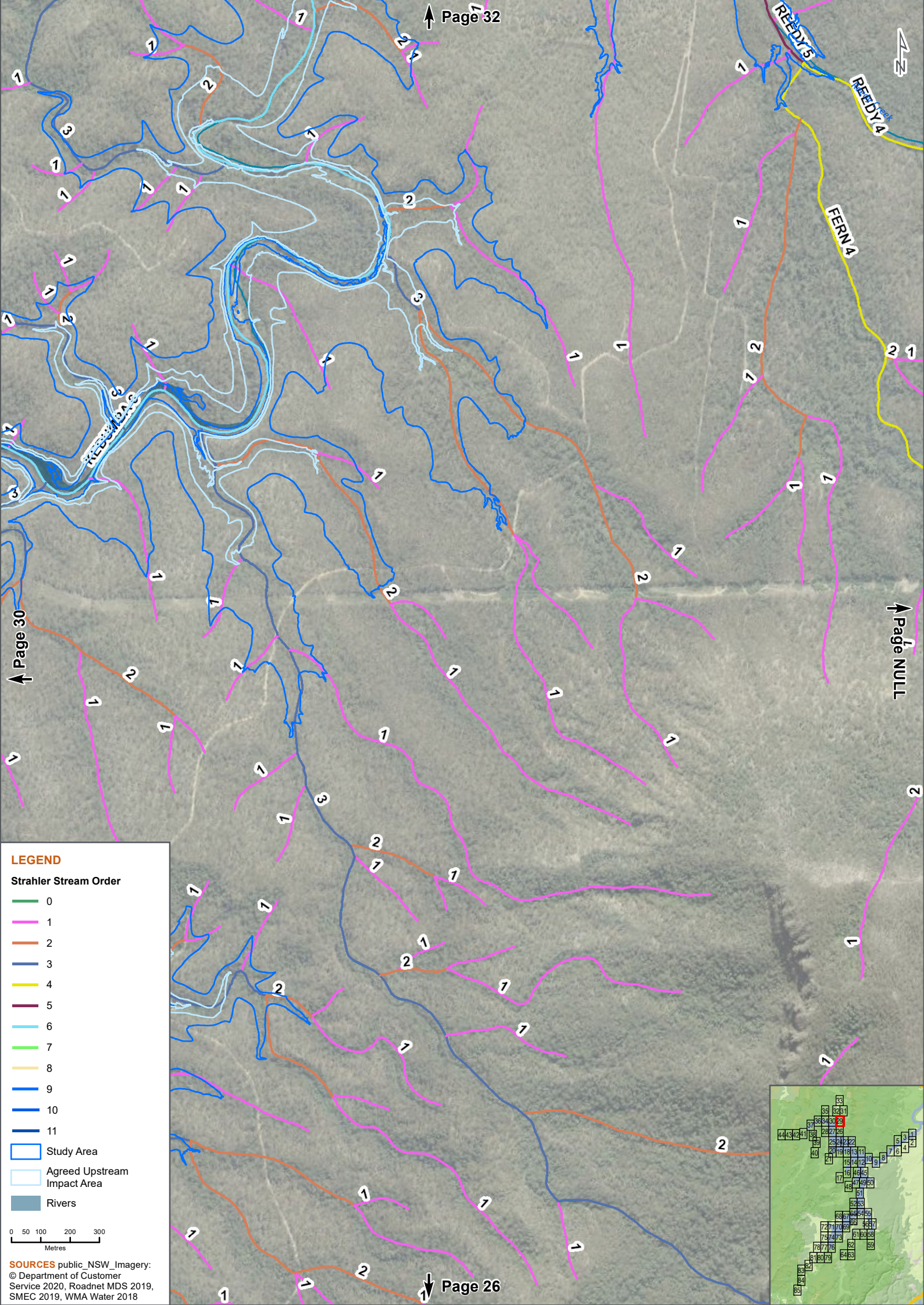
Agreed Upstream Impact Area

Rivers

0 50 100 200 300
Metres

SOURCES public_NSW_Imagery:
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018





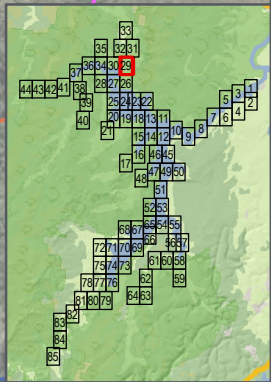
LEGEND

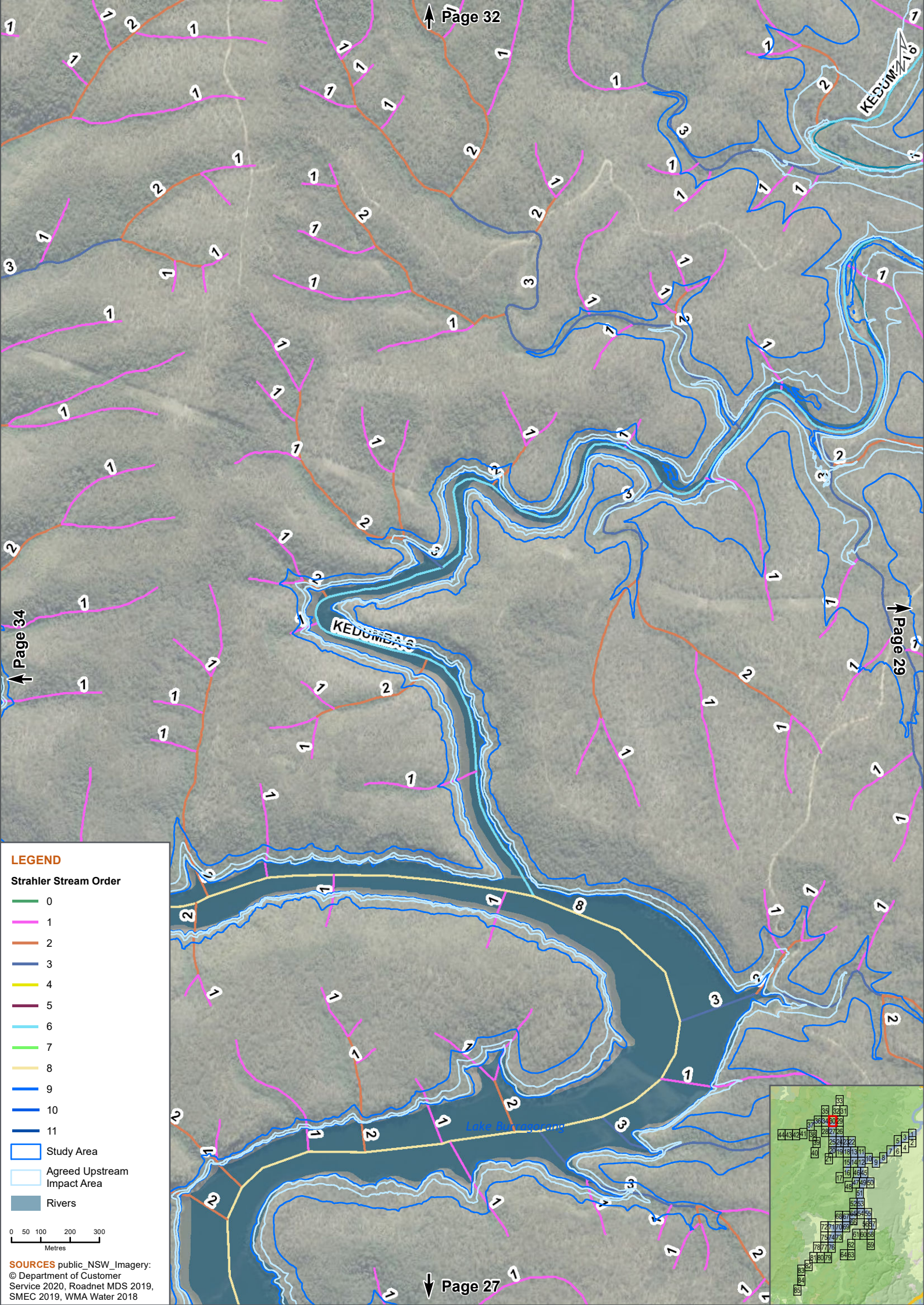
Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- Study Area
- Agreed Upstream Impact Area
- Rivers

0 50 100 200 300
Metres

SOURCES public_NSW_Imagery:
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018





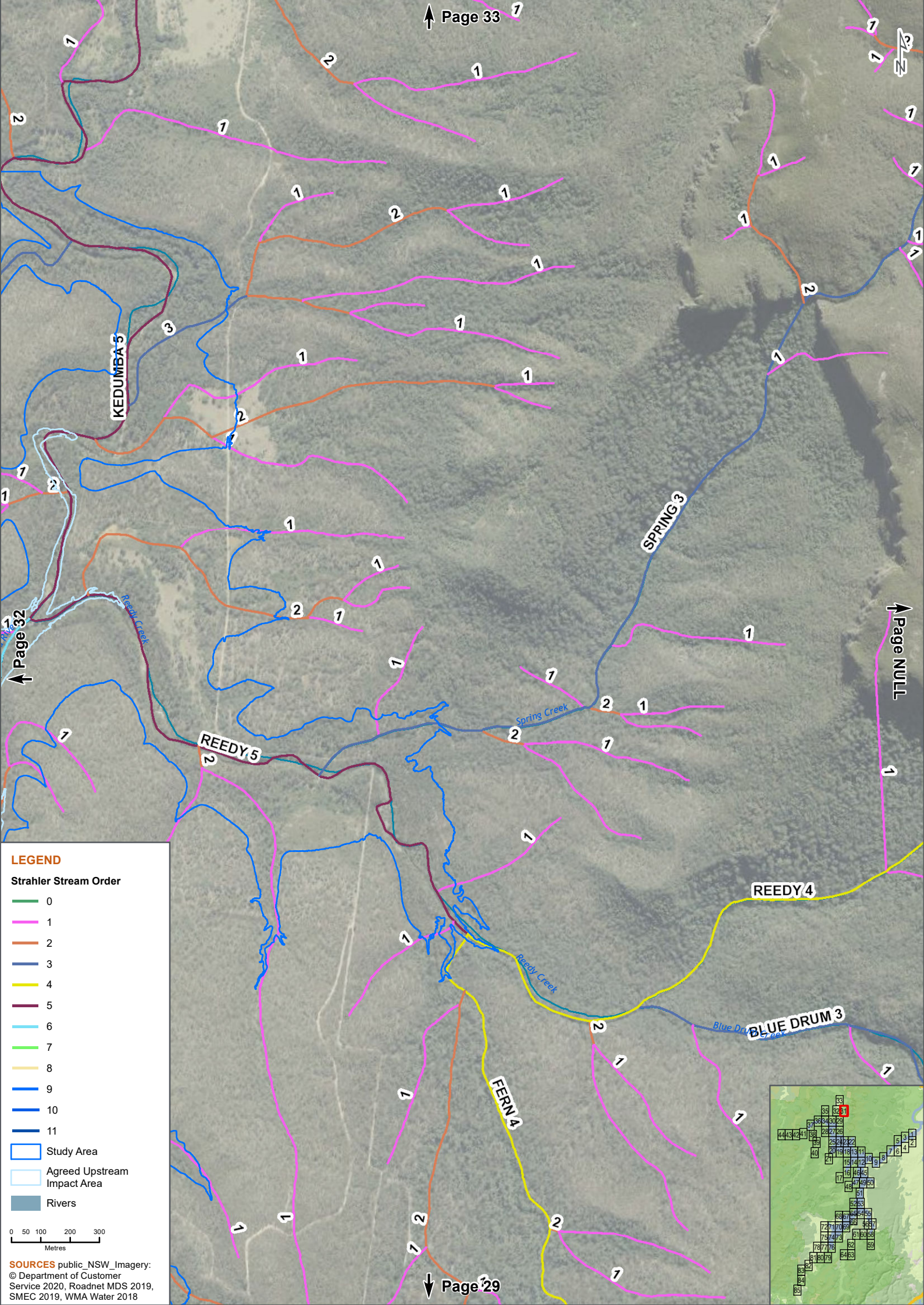
LEGEND

Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- Study Area
- Agreed Upstream Impact Area
- Rivers

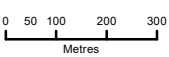
0 50 100 200 300
Metres

SOURCES public_NSW_Imagery:
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018

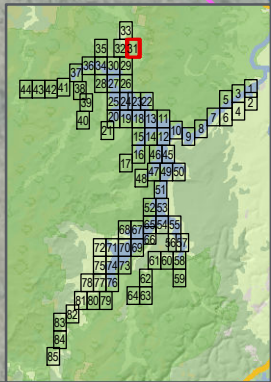


LEGEND
Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- Study Area
- Agreed Upstream Impact Area
- Rivers



SOURCES public_NSW_Imagery;
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018



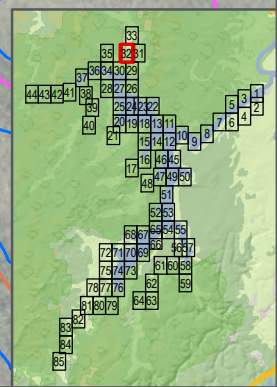
↑ Page NULL

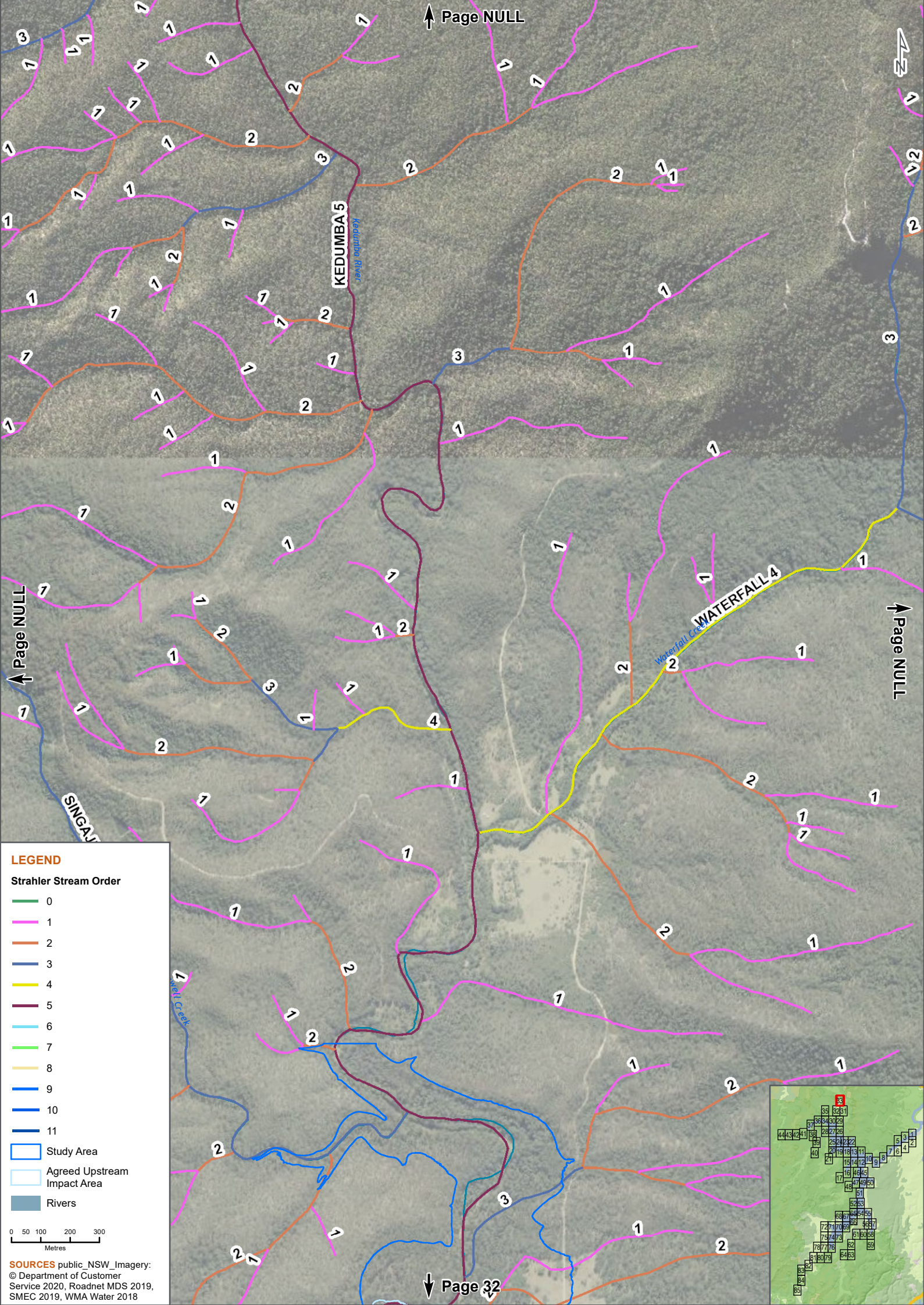
LEGEND

Strahler Stream Order

- 0
1
2
3
4
5
6
7
8
9
10
11
- Study Area
Agreed Upstream Impact Area
Rivers

SOURCES public_NSW_Imagery:
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018





↑ Page NULL

KEDUMBA 5
Kedumba River

WATERFALL 4
Waterfall Creek

SINGAI
Singai Creek

↑ Page NULL

↑ Page NULL

↓ Page 32

LEGEND

Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

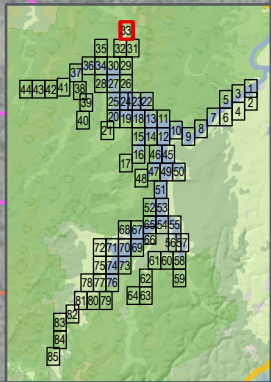
Study Area

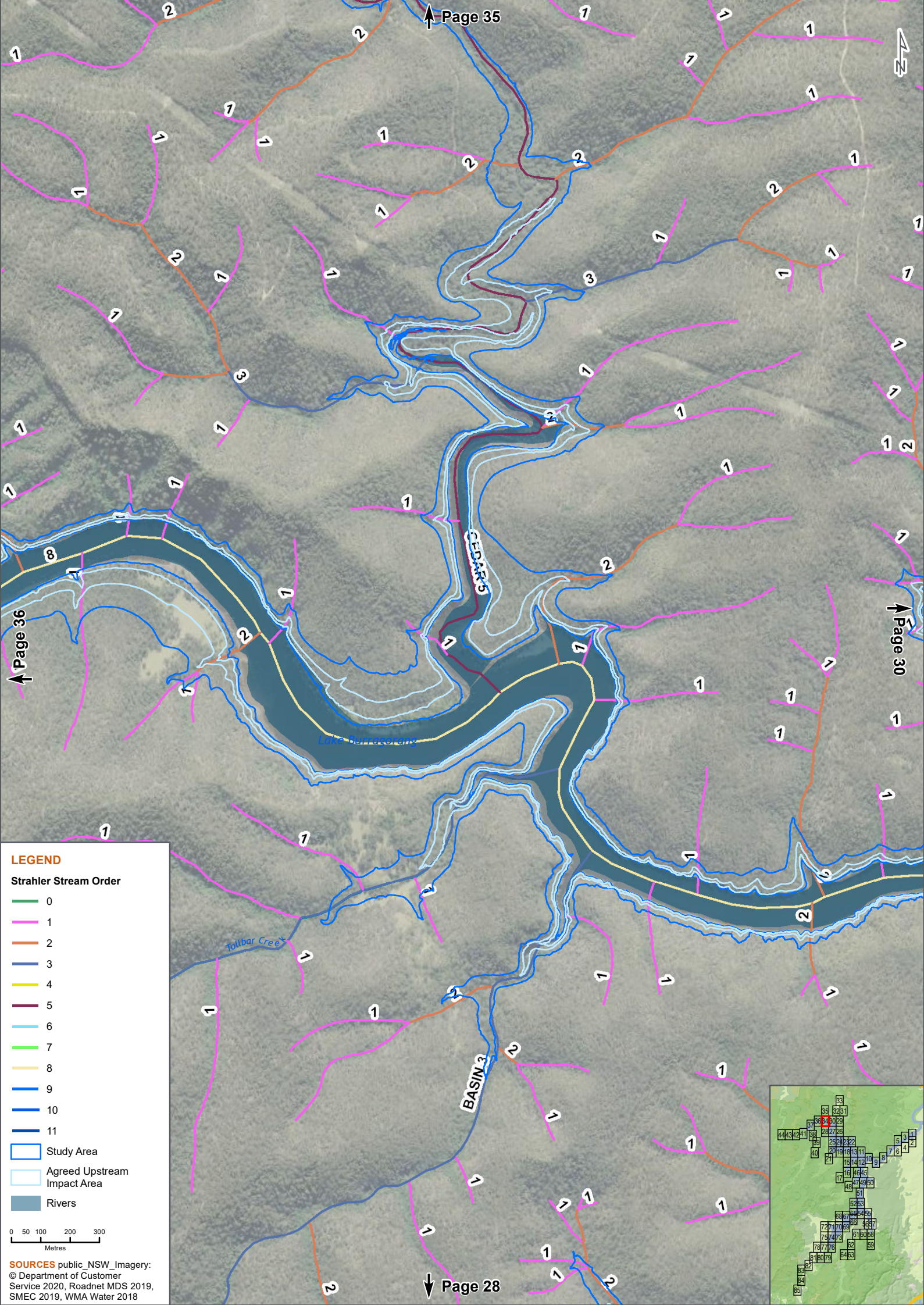
Agreed Upstream Impact Area

Rivers

0 50 100 200 300
Metres

SOURCES public_NSW_Imagery:
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018



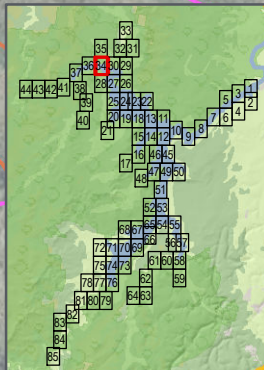


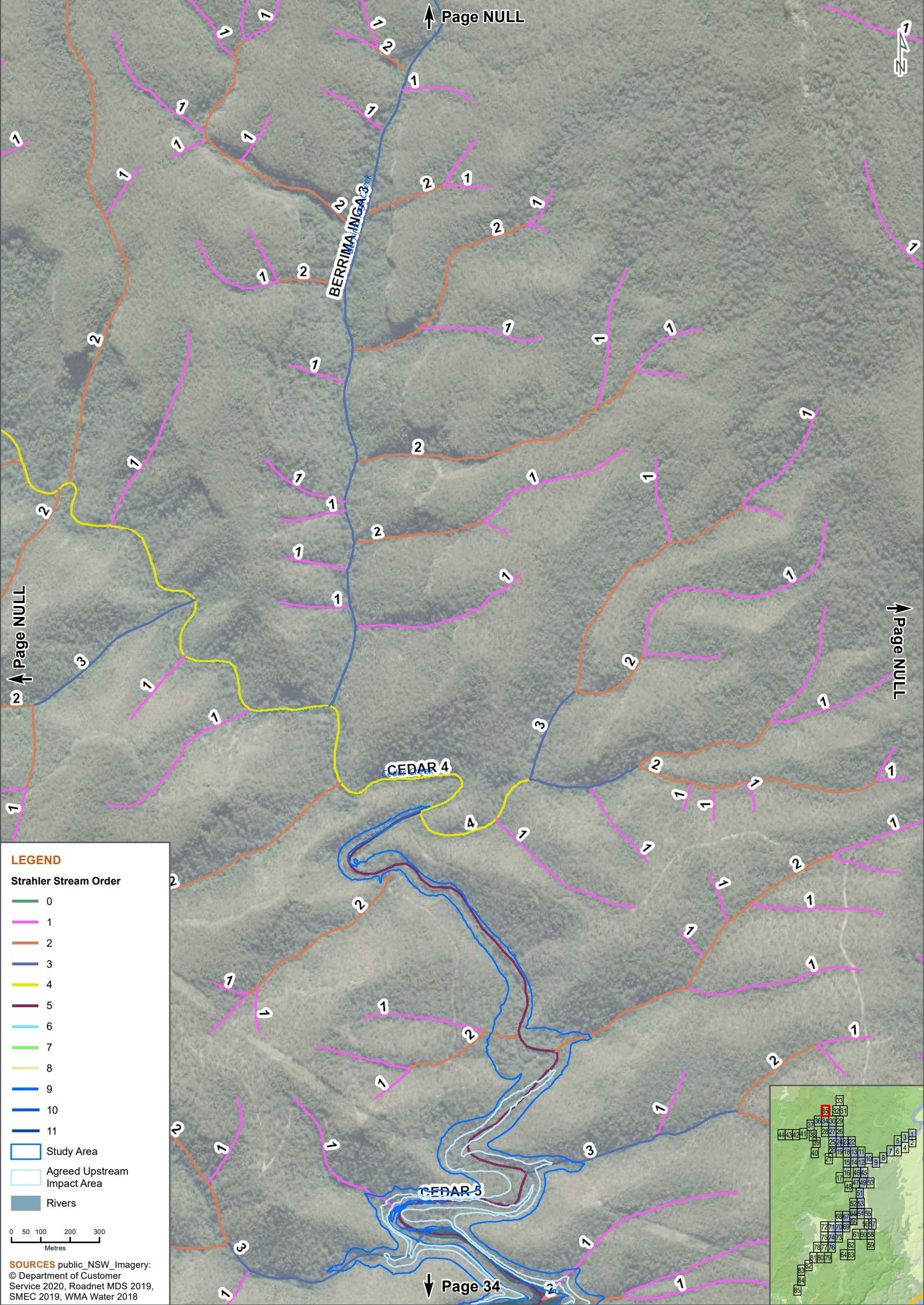
LEGEND
Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- Study Area
- Agreed Upstream Impact Area
- Rivers

0 50 100 200 300
Metres

SOURCES public_NSW_Imagery:
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018





↑ Page NULL

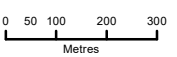
↑ Page NULL

↑ Page NULL

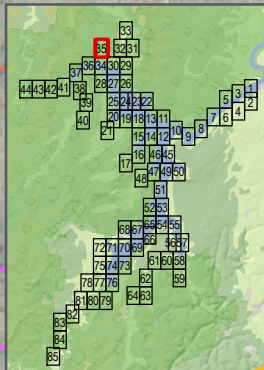
↓ Page 34

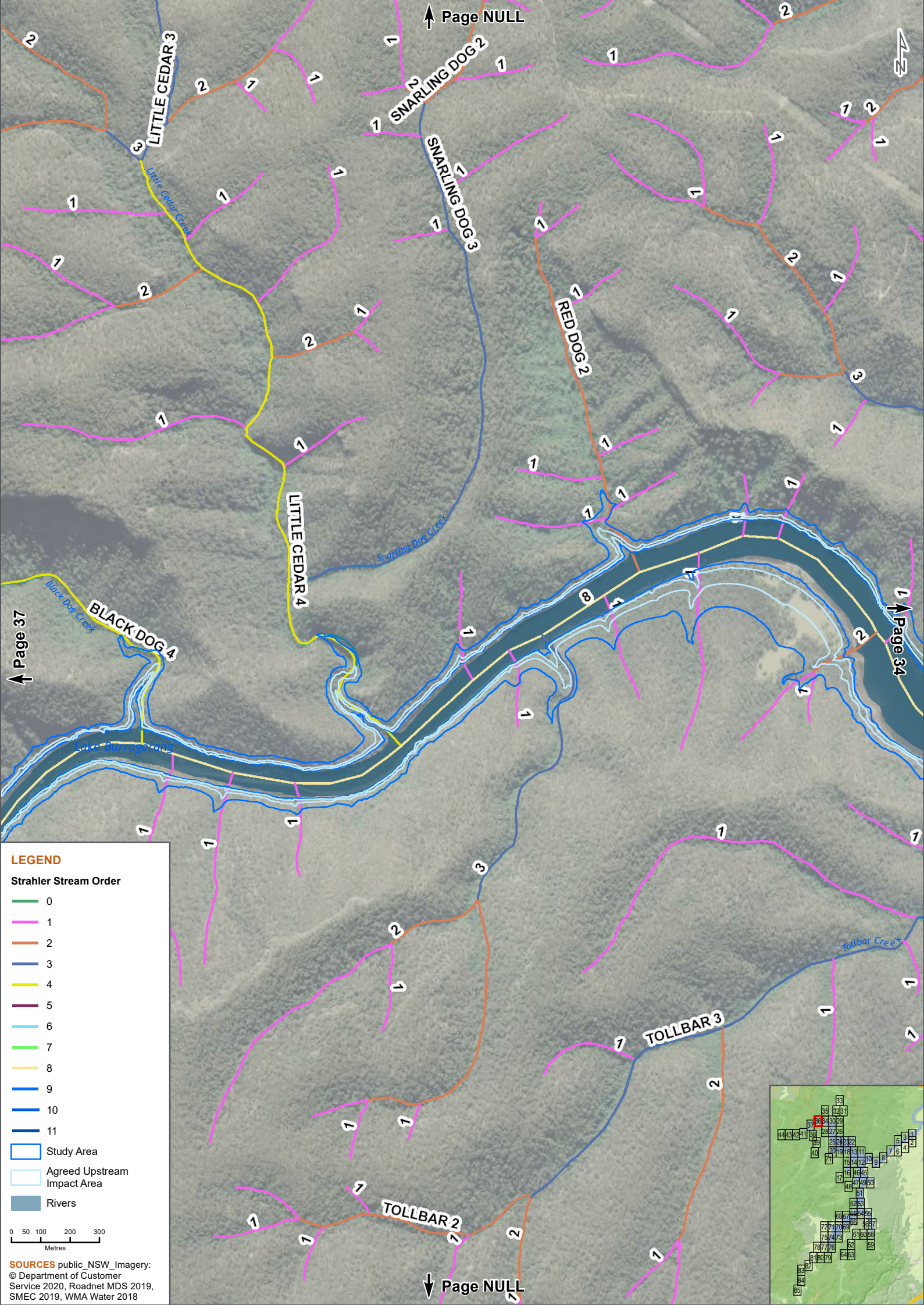
LEGEND
Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- Study Area
- Agreed Upstream Impact Area
- Rivers



SOURCES public_NSW_Imagery:
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018





Page 37

Page 34

LEGEND

Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

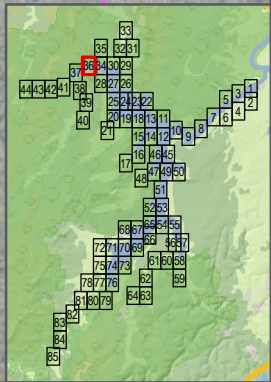
Study Area

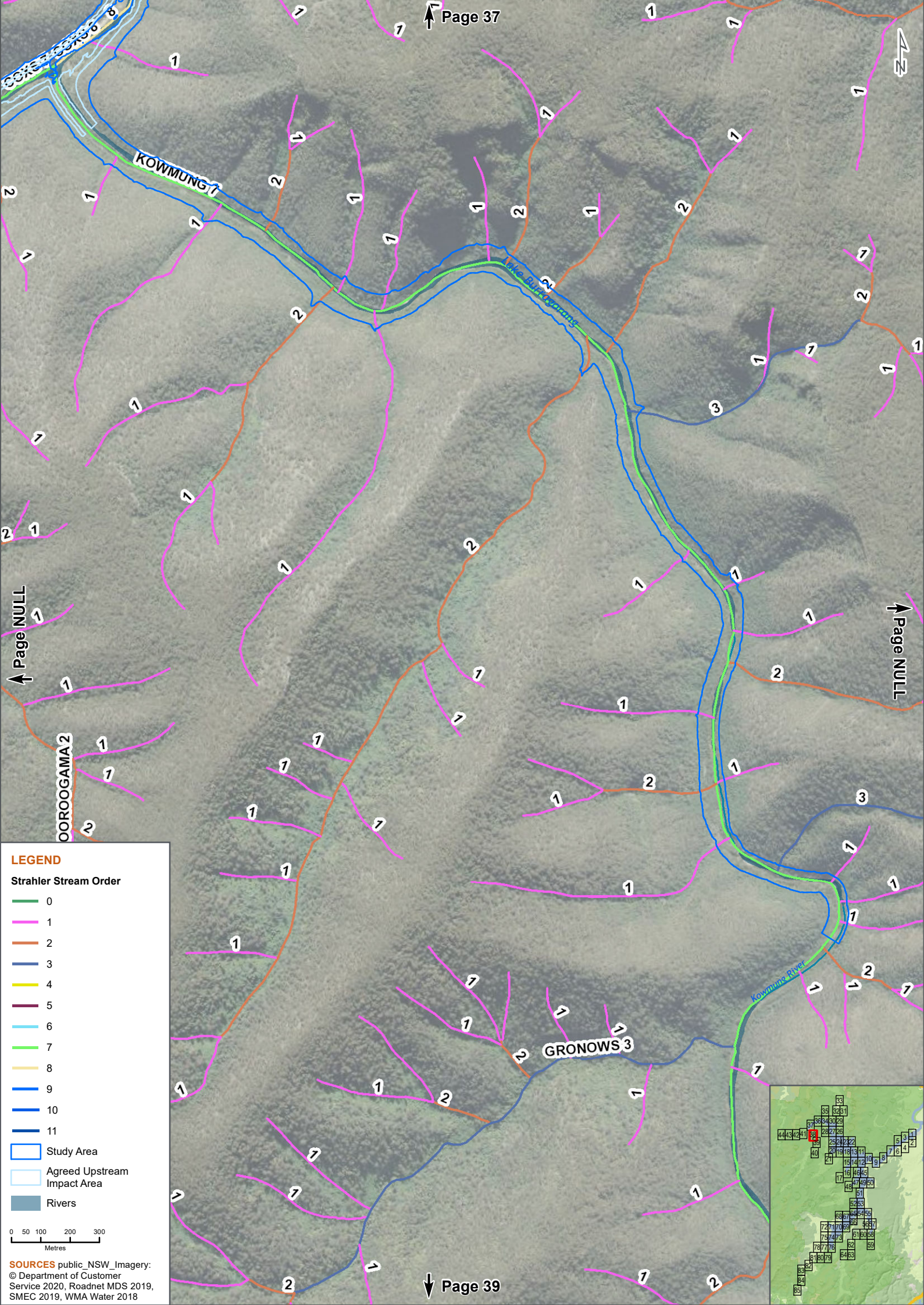
Agreed Upstream Impact Area

Rivers

0 50 100 200 300 Metres

SOURCES public_NSW_Imagery:
© Department of Customer Service 2020, Roadnet MDS 2019, SMEC 2019, WMA Water 2018





Page NULL

Page NULL

LEGEND

Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

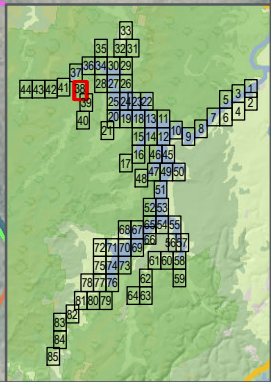
Study Area

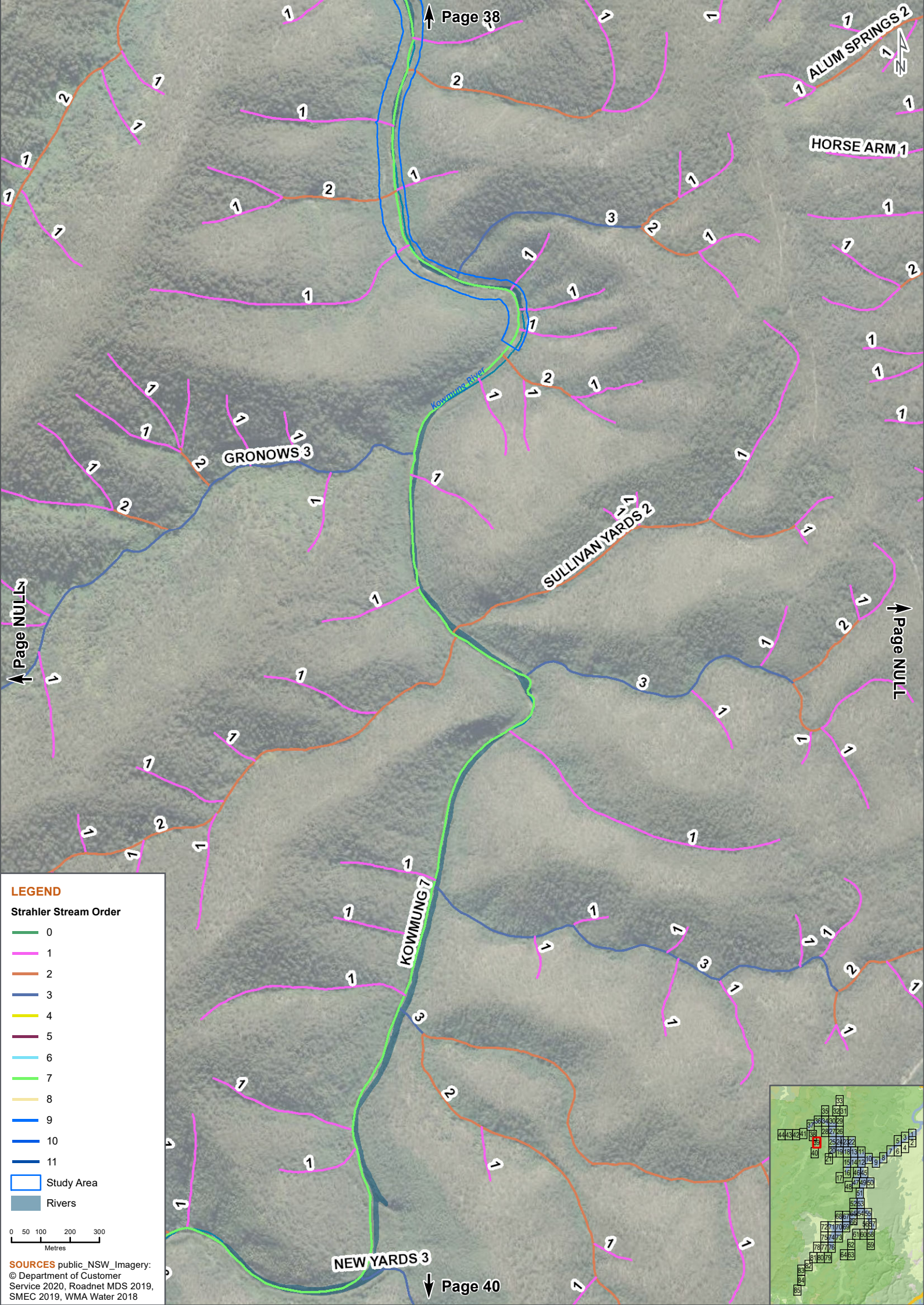
Agreed Upstream Impact Area

Rivers

0 50 100 200 300 Metres

SOURCES public_NSW_Imagery;
© Department of Customer Service 2020, Roadnet MDS 2019, SMEC 2019, WMA Water 2018





Page 38

ALUM SPRINGS 2

HORSE ARM 1

GRONOWS 3

SULLIVAN YARDS 2

KOWMUNG 7

NEW YARDS 3

Page 40

Page NULL

Page NULL

LEGEND

Strahler Stream Order

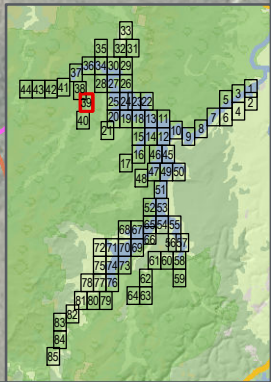
- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

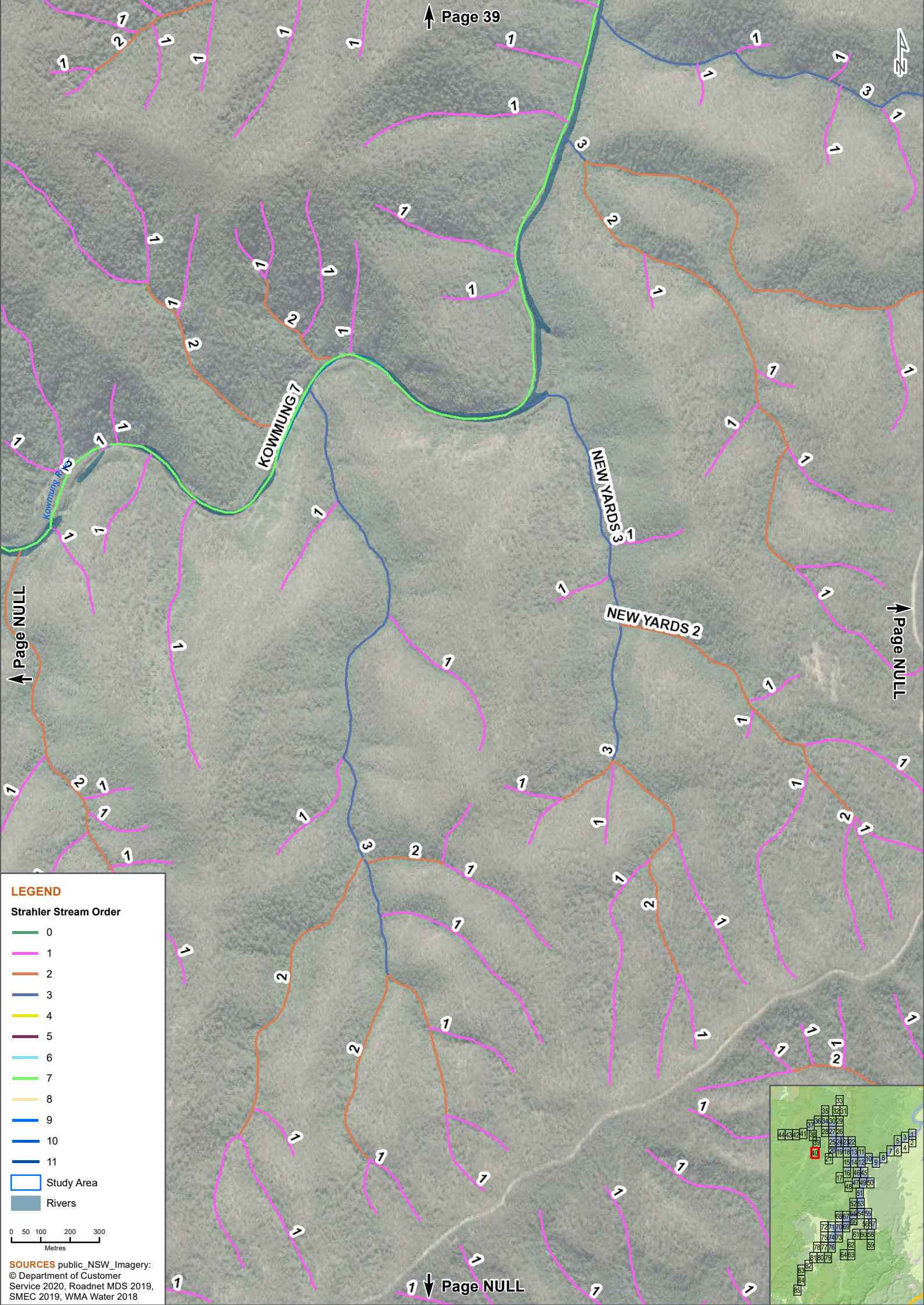
Study Area

Rivers

0 50 100 200 300
Metres

SOURCES public_NSW_Imagery;
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018





↑ Page NULL

↑ Page NULL

↓ Page NULL

LEGEND

Strahler Stream Order

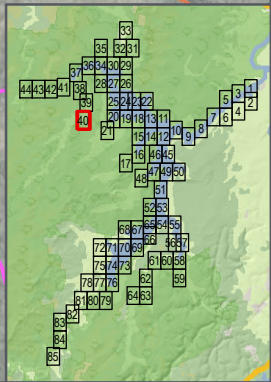
- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

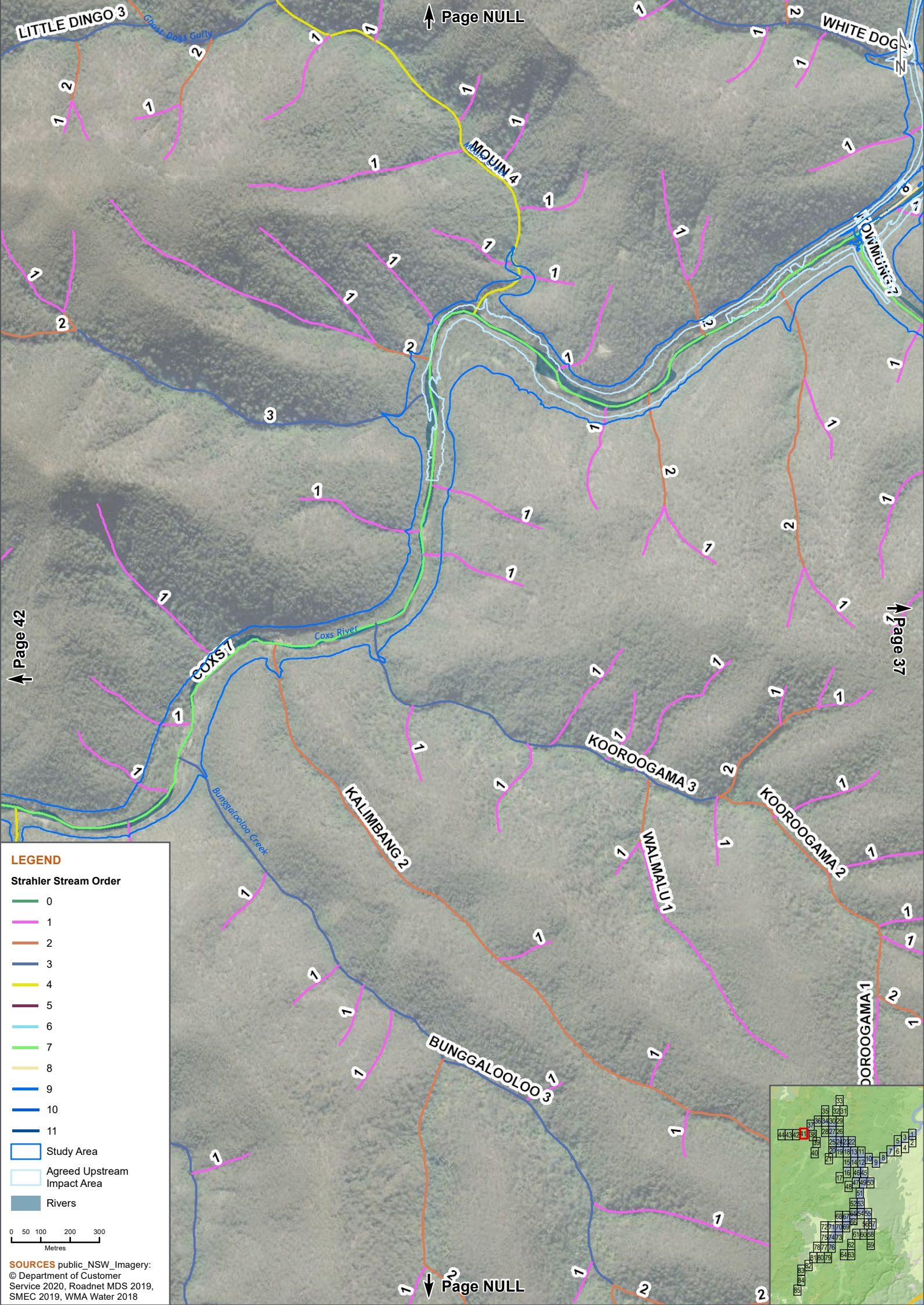
Study Area

Rivers

0 50 100 200 300
Metres

SOURCES public_NSW_Imagery:
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018





LITTLE DINGO 3

↑ Page NULL

WHITE DOG

MIQUIN 4

DWIMING 2

↑ Page 42

↑ Page 37

COXS 7

Coxs River

Bunggalooloo Creek

KALIMBANG 2

KOROOGAMA 3

WALMALU 1

KOROOGAMA 2

KOROOGAMA 1

BUNGALOOLOO 3

LEGEND

Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Study Area

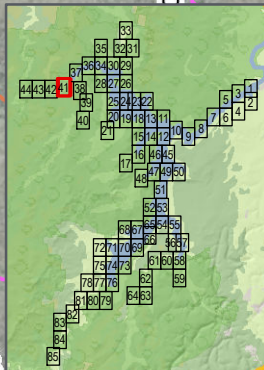
Agreed Upstream Impact Area

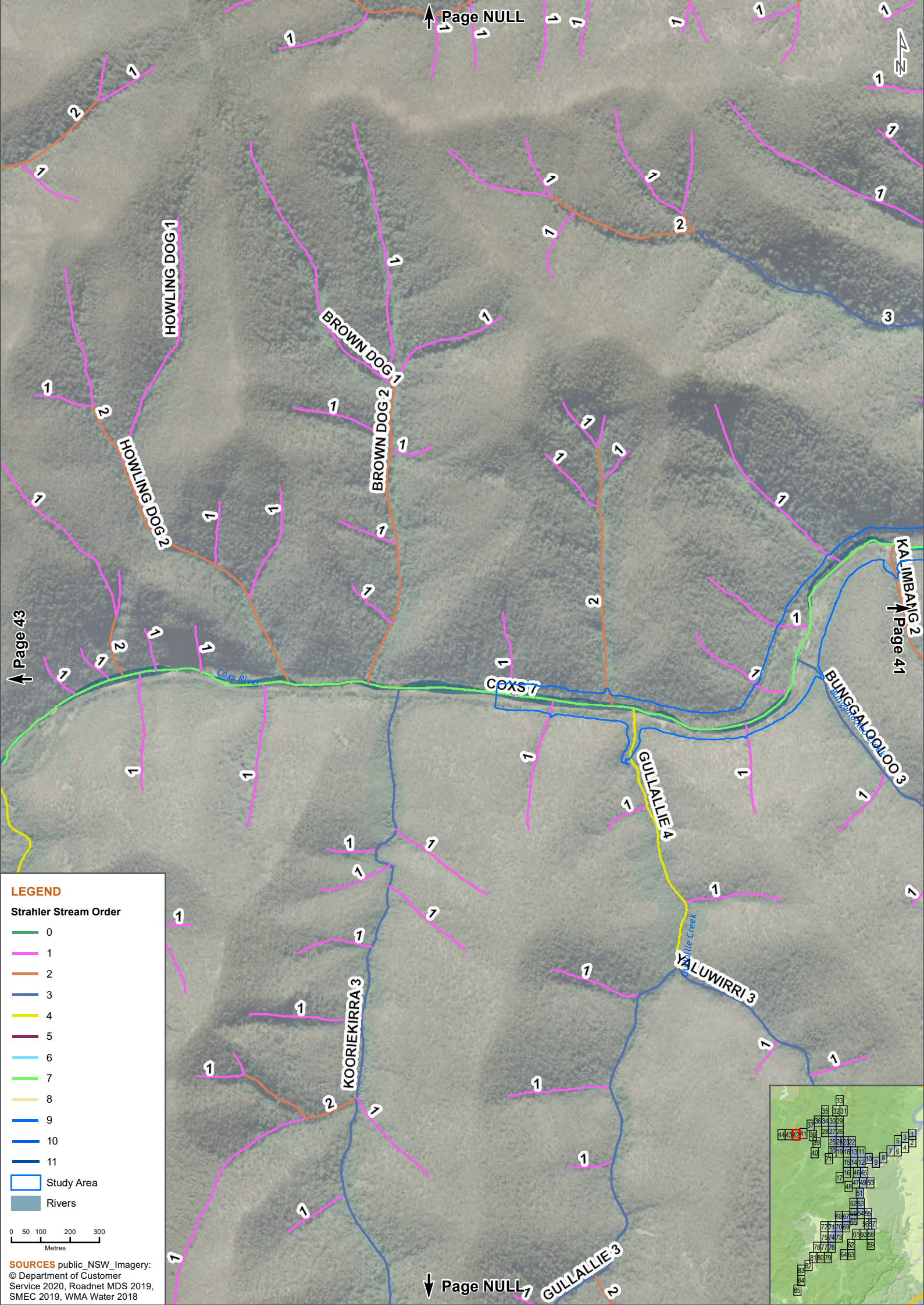
Rivers

0 50 100 200 300
Metres

SOURCES public_NSW_Imagery:
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018

↓ Page NULL





LEGEND

Strahler Stream Order

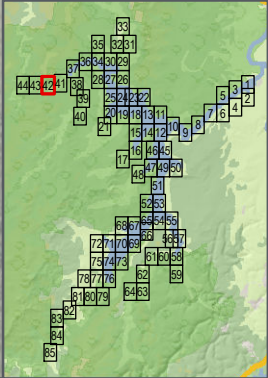
- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

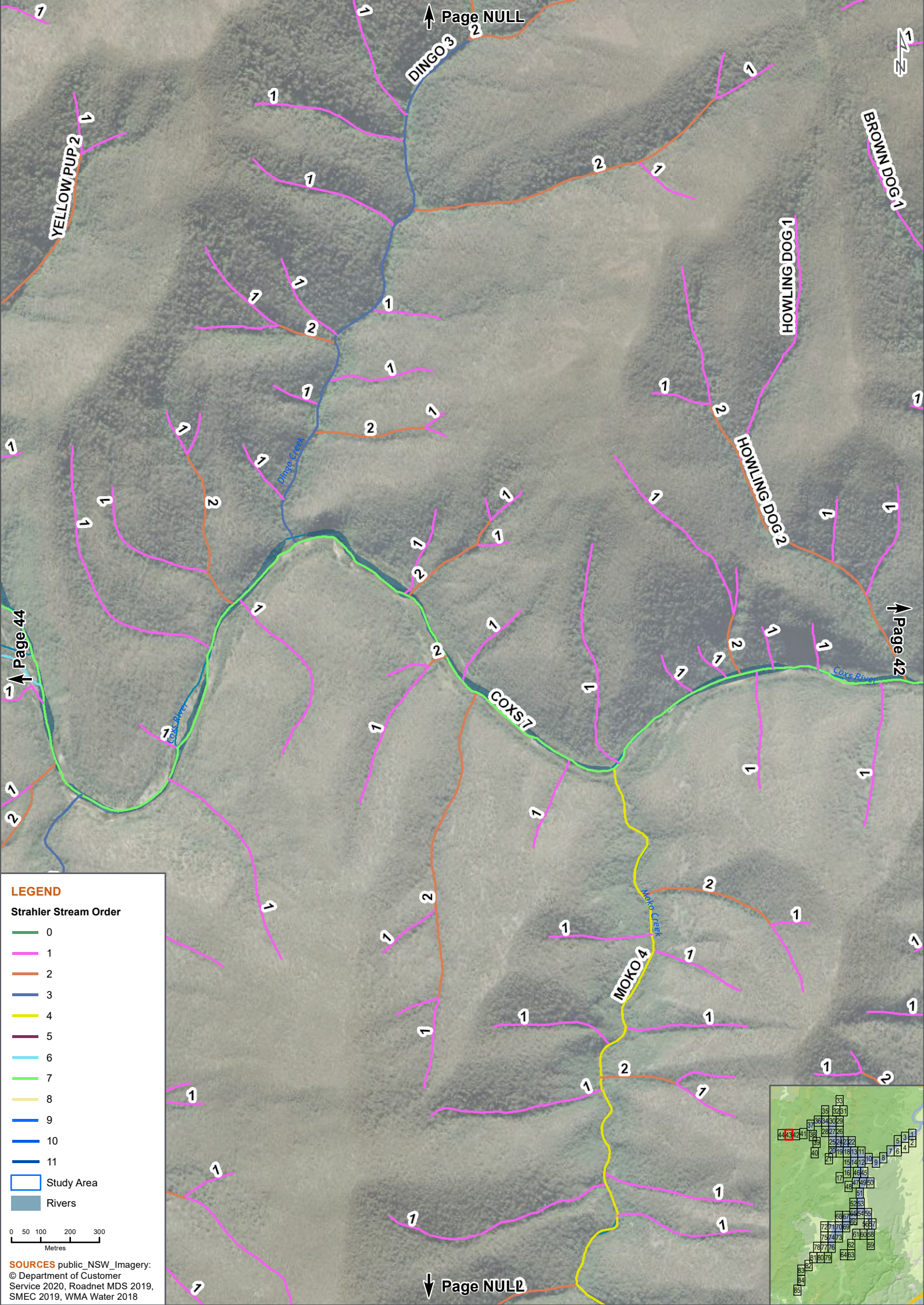
Study Area

Rivers

0 50 100 200 300 Metres

SOURCES public_NSW_Imagery;
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018





LEGEND
Strahler Stream Order

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- Study Area
- Rivers

0 50 100 200 300
Metres

SOURCES public_NSW_Imagery:
© Department of Customer
Service 2020, Roadnet MDS 2019,
SMEC 2019, WMA Water 2018

