

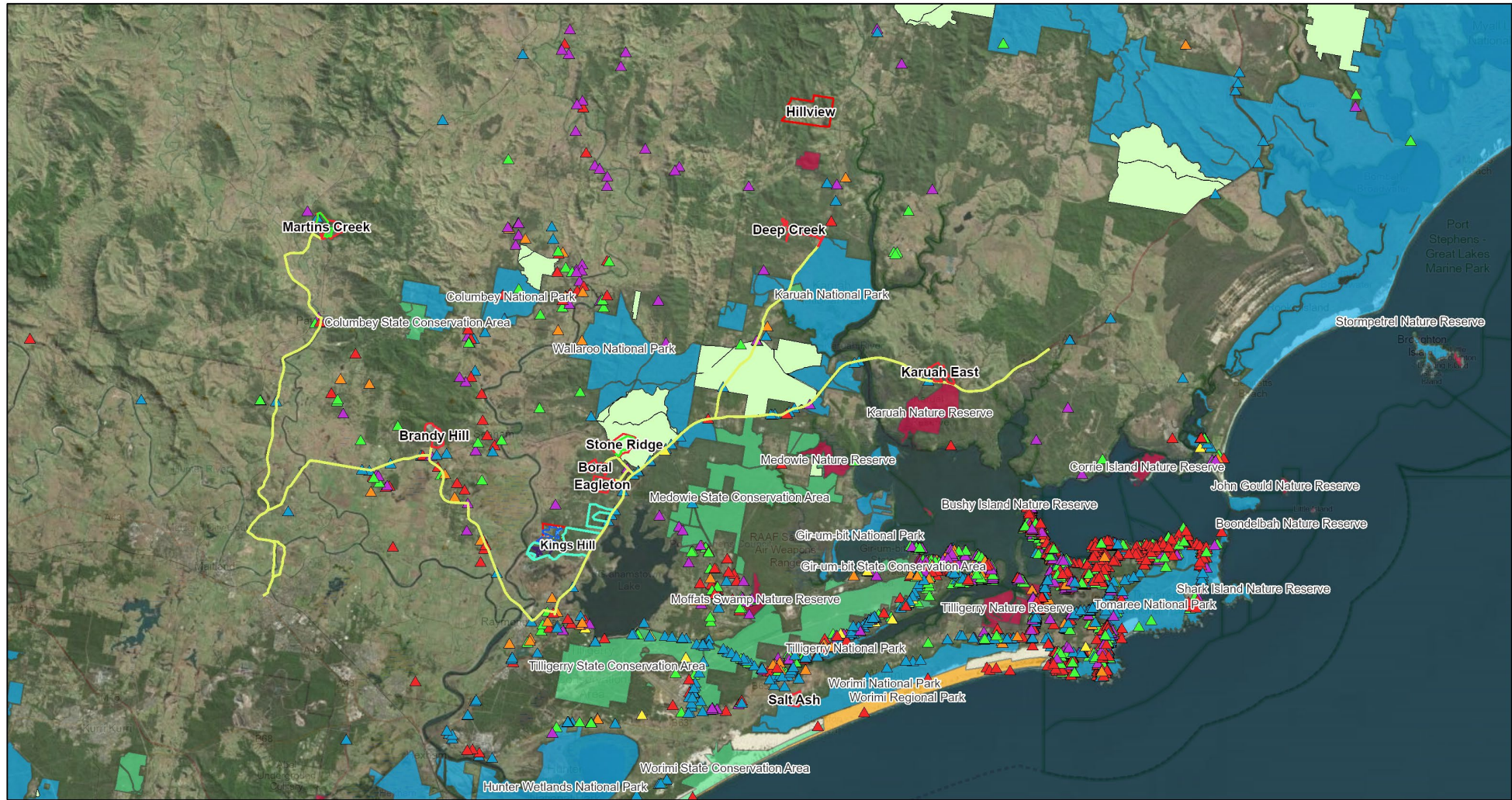
# Stone Ridge Quarry within Wallaroo State Forest



Carmel Northwood

Presentation to IPC 14/11/2024

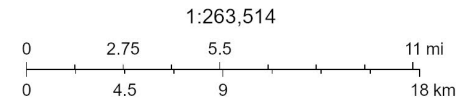
# Koala Data



12/11/2024, 16:44:11

- |                           |  |                        |
|---------------------------|--|------------------------|
| Hillview Mine             | Monarchs Rise DA                                     | Motor Vehicle          |
| Quarry Locations - Rock   | Monarch Rise Site                                    | Other                  |
| Project Area              | Development Precinct 1                               | Disease                |
| Disturbance Area          | Proposed residential land to be conserved            | Dog                    |
| Quarry Haulage Routes     | Proposed revegetation area                           | Fire                   |
| Kings Hill Development    | Conservation Land                                    | Dedicated State Forest |
| Kings Hill Precinct Areas | Unsuitable Environment                               | Forest Management Zone |
|                           | PSKH All Koala RESCUES 1993-2024 (updated July 2024) |                        |

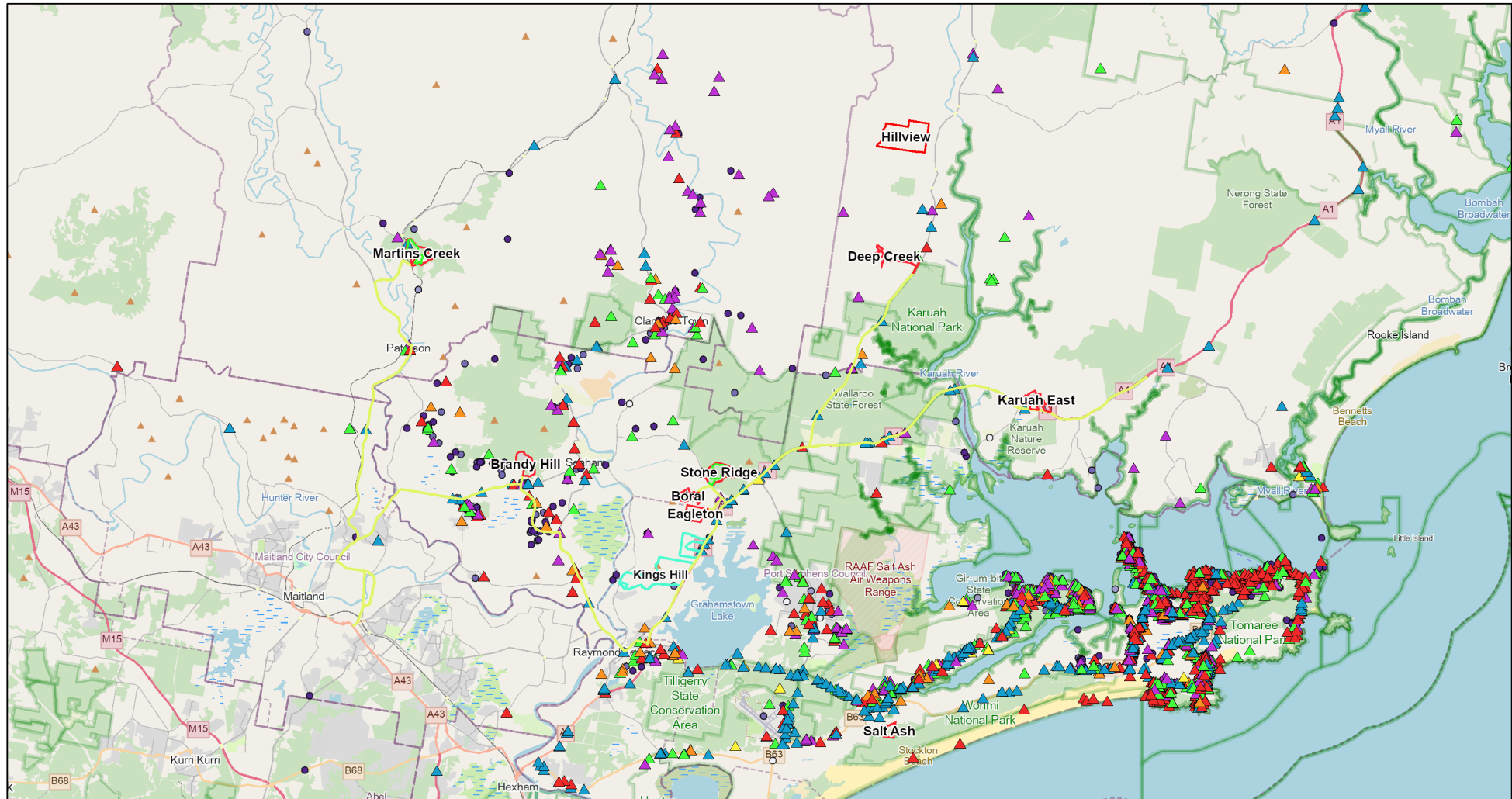
- |   |
|---|
| Flora Reserve   |
| National Parks and Wildlife Service (NPWS) Estate - SEED Portal |
| NATURE RESERVE  |
| NATIONAL PARK   |
| STATE CONSERVATION AREA   |
| REGIONAL PARK   |



Port Stephens Koala Hospital  
(PSKH) data: Blue shows MVAs

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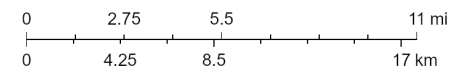
# Koala Data



07/11/2024, 11:07:46

- |   |   |  |
|---|---|--|
| <span style="border: 1px solid red; display: inline-block; width: 15px; height: 10px;"></span> Hillview Mine            | <span style="color: red;">▲</span> PSKH All Koala RESCUES 1993-2024 (updated July 2024) | <span style="color: blue;">○</span> PSKH Koala SIGHTINGS (updated July 2024) |
| <span style="border: 1px solid red; display: inline-block; width: 15px; height: 10px;"></span> Quarry Locations - Rock  | <span style="color: blue;">▲</span> Unsuitable Environment                              | <span style="color: blue;">○</span> 1995 - 2000                              |
| <span style="border: 1px solid red; display: inline-block; width: 15px; height: 10px;"></span> Project Area             | <span style="color: blue;">▲</span> Motor Vehicle                                       | <span style="color: blue;">○</span> > 2000 - 2005                            |
| <span style="border: 1px solid green; display: inline-block; width: 15px; height: 10px;"></span> Disturbance Area       | <span style="color: green;">▲</span> Other  | <span style="color: blue;">○</span> > 2005 - 2010                            |
| <span style="border: 1px solid yellow; display: inline-block; width: 15px; height: 10px;"></span> Quarry Haulage Routes | <span style="color: purple;">▲</span> Disease   | <span style="color: blue;">○</span> > 2010 - 2015                            |
| <span style="border: 1px solid cyan; display: inline-block; width: 15px; height: 10px;"></span> Kings Hill Development  | <span style="color: orange;">▲</span> Dog   | <span style="color: blue;">○</span> > 2015 - 2020                            |
|   | <span style="color: yellow;">▲</span> Fire  | <span style="color: blue;">○</span> > 2020 - 2024                            |

1:260,875

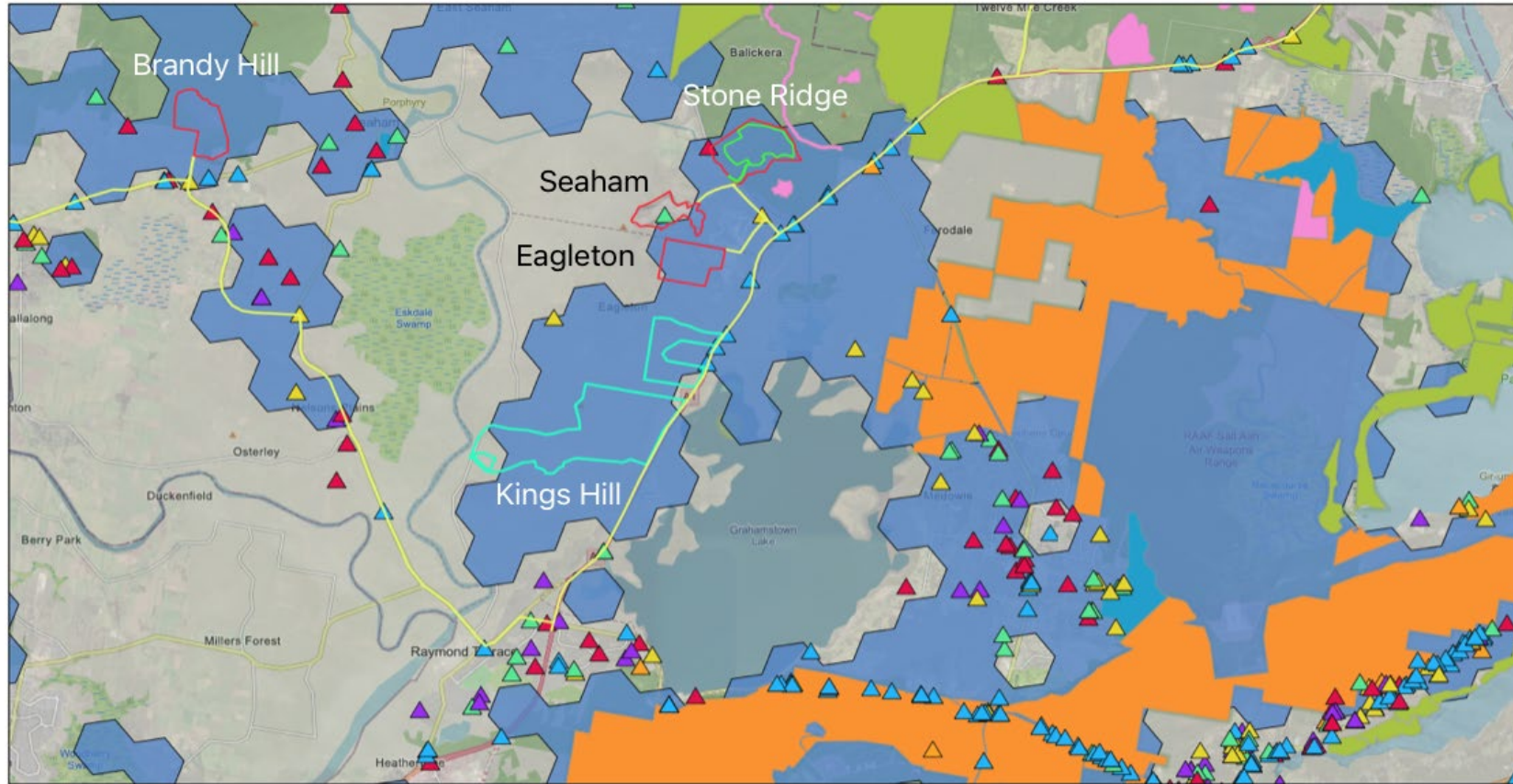


## Port Stephens Koala Hospital (PSKH) data: Blue shows MVAs



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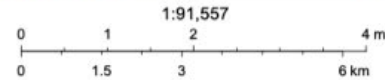
# Stone Ridge in context and traffic impact on koalas



- Quarry Locations - Rock**
- Project Area
  - Disturbance Area
  - Quarry Haulage Routes
  - Kings Hill Development

- Koala Rescues**
- ▲ Unsuitable Environment
  - ▲ Motor Vehicle
  - ▲ Other
  - ▲ Disease
  - ▲ Dog
  - ▲ Fire

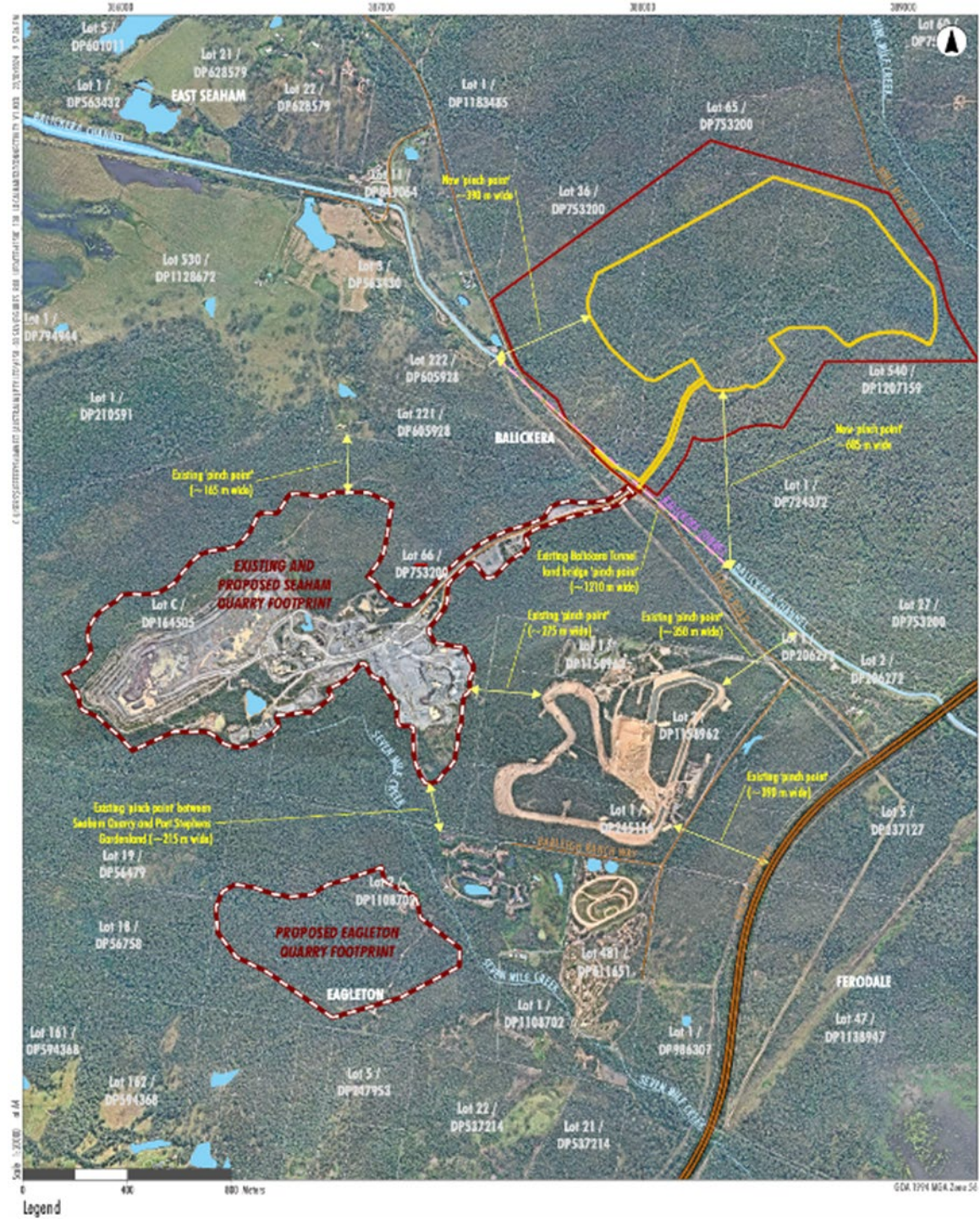
- Collaborative Australian Protected Area Database (CAPAD) Koala 2018**
- Nature Reserve
  - National Park
  - State Conservation Area
  - Protected Area
  - Current koala habitat



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Pinch points will be much more severe and limit koala movement, even without Stone Ridge Quarry.

The cumulative and combined impacts are not sufficiently addressed.



Stone Ridge blocks the Regional Fauna Corridor.

The narrowing corridors are mapped without due consideration for wildlife. For example, the pinch point at the eastern end is shown as 685m but the actual pinch point for crossing the road is much narrower.

Genetic research proves koalas are unable to cross the Pacific Highway.

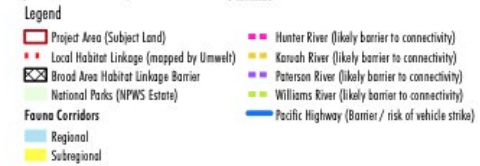
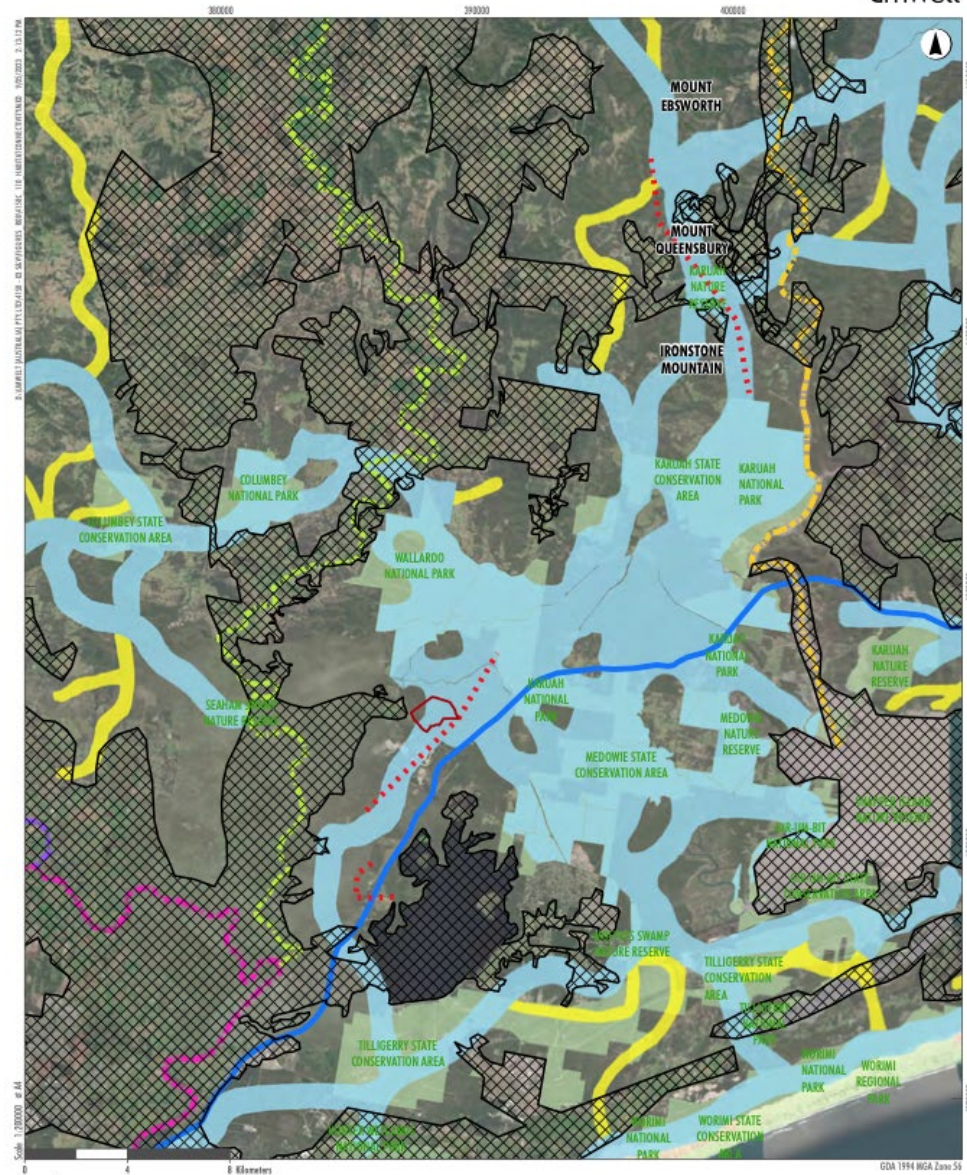
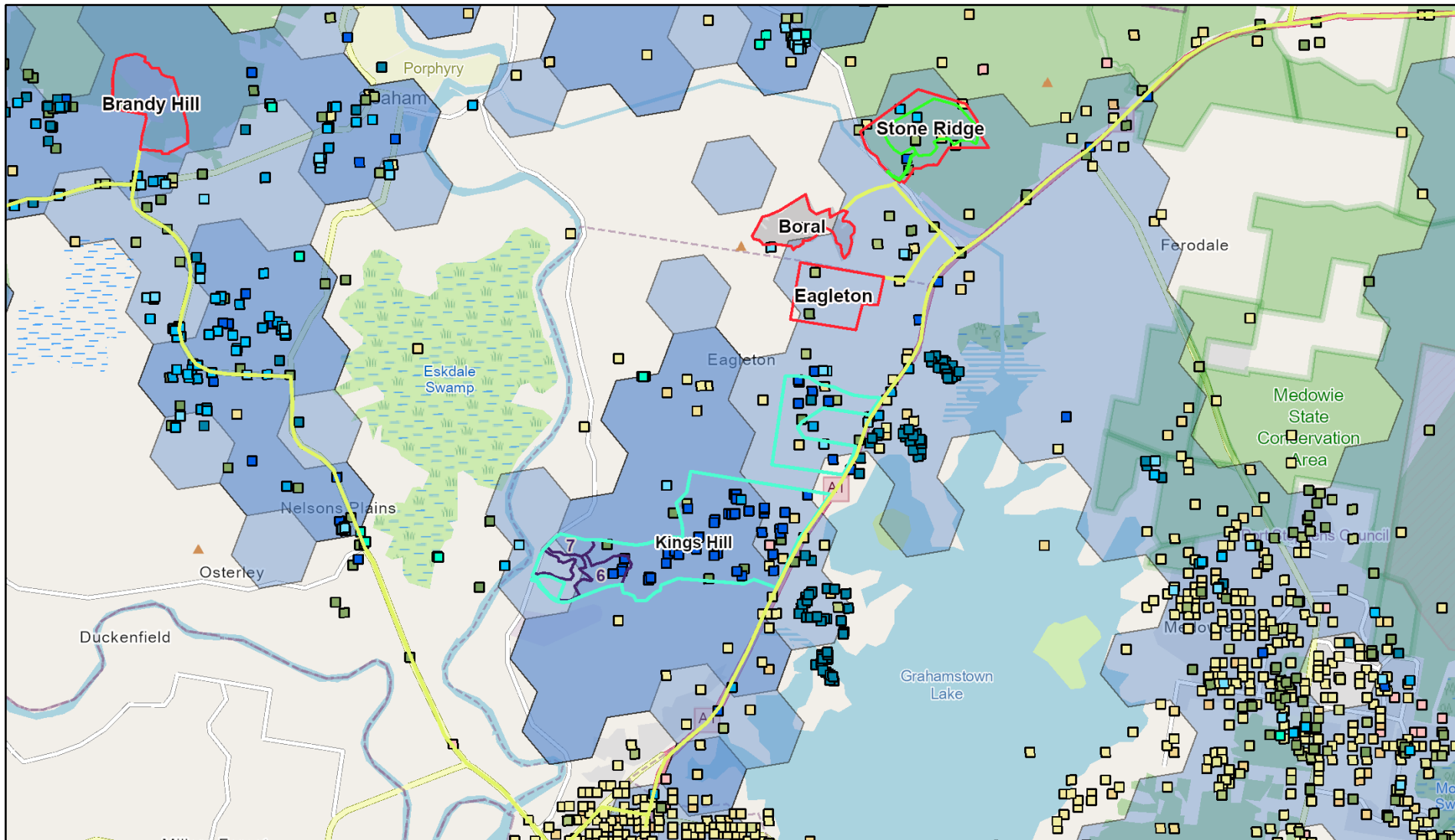


FIGURE 3.2  
Habitat Connectivity

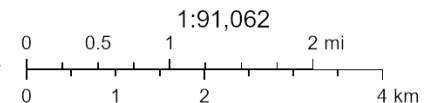
# Koala Data



11/11/2024, 19:29:45

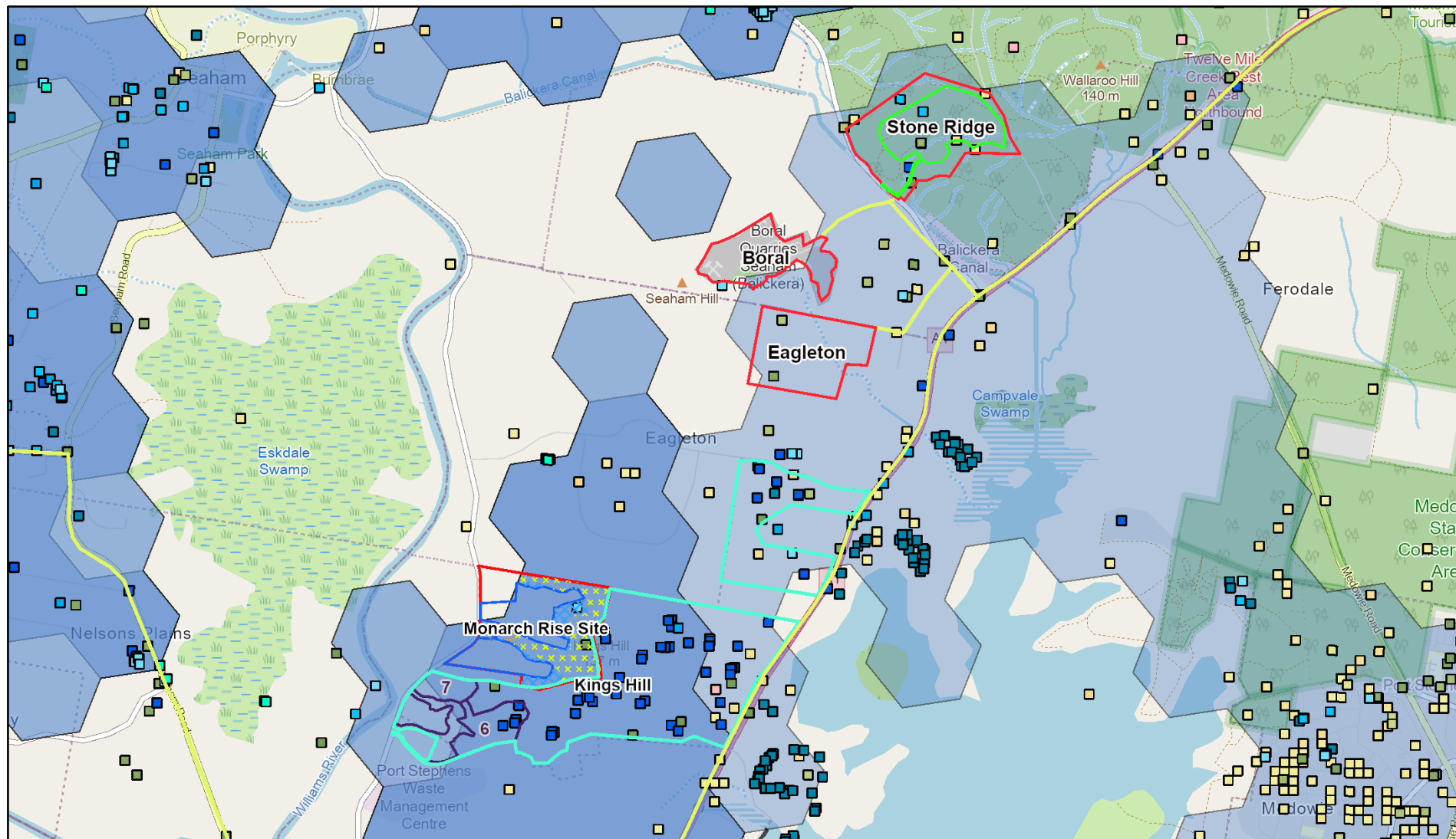
- Quarry Locations - Rock
  - Project Area
  - Disturbance Area
  - Quarry Haulage Routes
  - Kings Hill Development
  - Kings Hill Precinct Areas
  - Koala Species Sightings
- |          |      |      |      |      |
|----------|------|------|------|------|
| 2023     | 2014 | 2005 | 1996 | 1987 |
| 2022     | 2013 | 2004 | 1995 | 1986 |
| 2021     | 2012 | 2003 | 1994 | 1985 |
| 2020     | 2011 | 2002 | 1993 | 1984 |
| 2019     | 2010 | 2001 | 1992 | 1983 |
| 2018     | 2009 | 2000 | 1991 | 1982 |
| 2017     | 2008 | 1999 | 1990 | 1981 |
| pre 1960 | 2016 | 2007 | 1998 | 1989 |
| 2024     | 2015 | 2006 | 1997 | 1988 |
|          |      |      |      | 1979 |

The lighter blue is current koala habitat, the darker blue is the conservative estimate of what habitat will be left with climate change. This data is from modelling by University of Queensland



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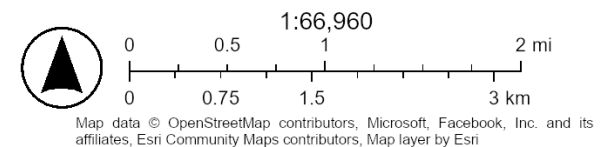
# Koala Data



11/11/2024, 23:00:39

- |                           |   |      |      |      |      |
|---------------------------|---|------|------|------|------|
| Quarry Locations - Rock   | Proposed residential land to be conserved | 2020 | 2011 | 2002 | 1993 |
| Project Area              | Proposed revegetation area                | 2019 | 2010 | 2001 | 1992 |
| Disturbance Area          | Conservation Land                         | 2018 | 2009 | 2000 | 1991 |
| Quarry Haulage Routes     | Koala Species Sightings                   | 2017 | 2008 | 1999 | 1990 |
| Kings Hill Development    | pre 1960                                  | 2016 | 2007 | 1998 | 1989 |
| Kings Hill Precinct Areas | 2024                                      | 2015 | 2006 | 1997 | 1988 |
| Monarchs Rise DA          | 2023                                      | 2014 | 2005 | 1996 | 1987 |
| Monarch Rise Site         | 2022                                      | 2013 | 2004 | 1995 | 1986 |
| Development Precinct 1    | 2021                                      | 2012 | 2003 | 1994 | 1985 |

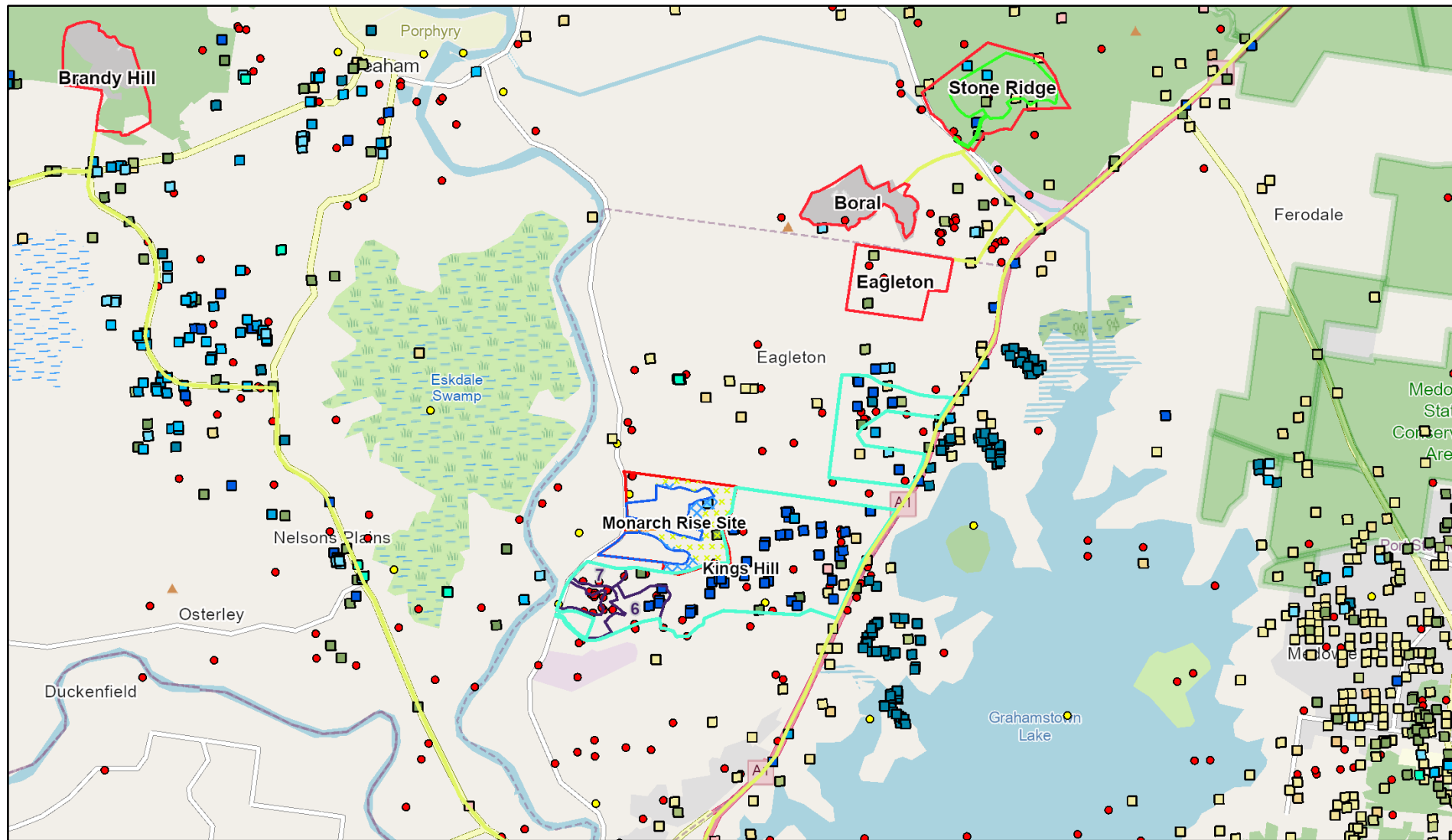
Zoom in to show Monarch's Rise aka Precinct 8 Kings Hill (approved 2024) Precincts 6 & 7 (not yet)



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# Koala Data



11/11/2024, 23:12:45

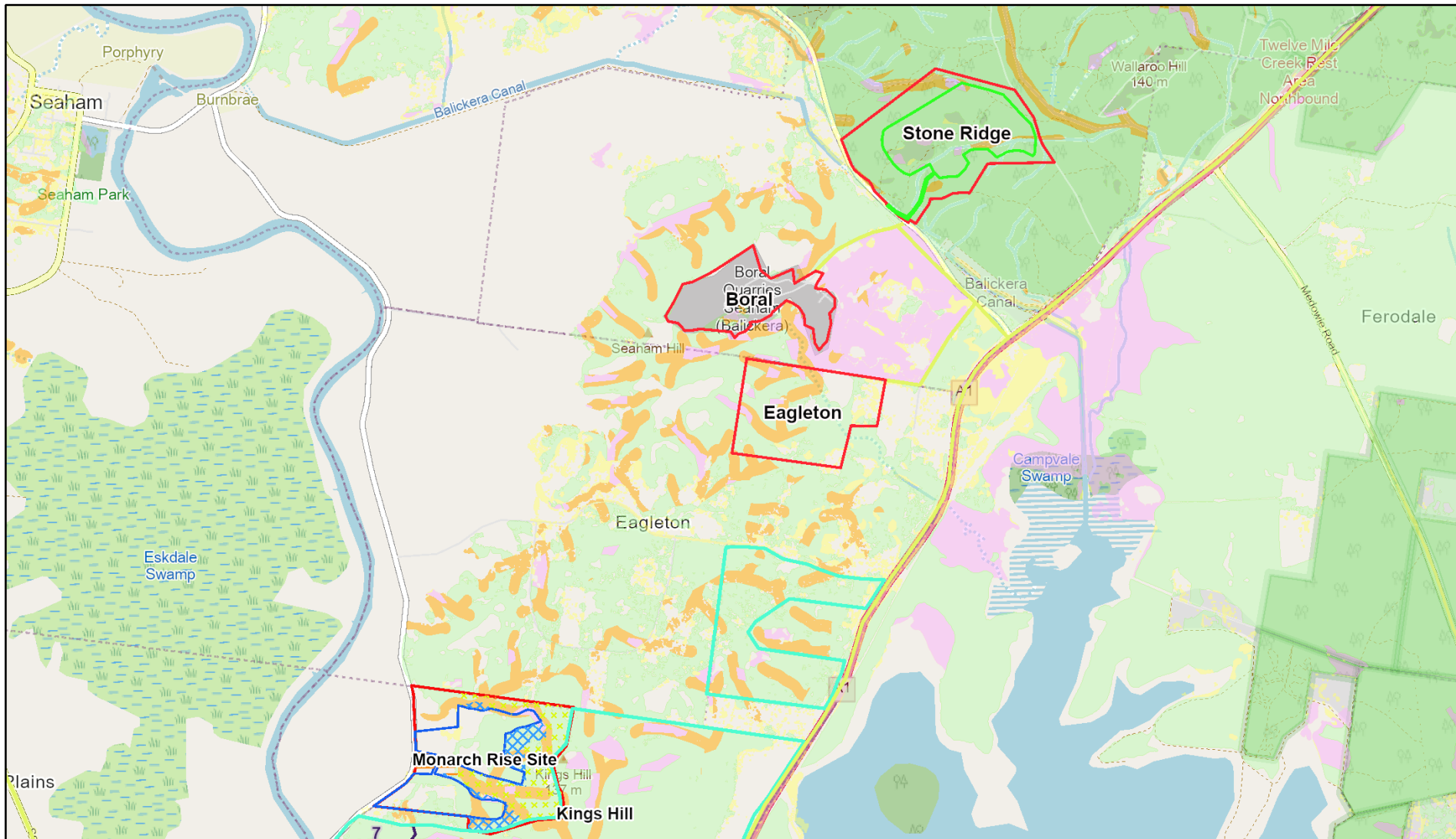
- Quarry Locations - Rock
- Project Area
- Disturbance Area
- Quarry Haulage Routes
- Kings Hill Development
- Kings Hill Precinct Areas
- Monarchs Rise DA
- Monarch Rise Site
- Development Project 1
- Proposed residential land to be conserved
- Proposed revegetation area
- Conservation Land
- Koala Species Sightings
- pre 1960
- 2024
- 2023
- 2022
- 2020
- 2019
- 2018
- 2017
- 2016
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- 1971
- 1970
- 1969
- 1968

Koala (squares), vulnerable species (red dots) and endangered species (yellow dots) along the Pacific Hwy between Stone Ridge and Kings Hill.

1:79,016

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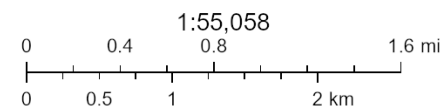
# Koala Data



11/11/2024, 23:16:44

- Quarry Locations - Rock
- Project Area
- Disturbance Area
- Quarry Haulage Routes
- Kings Hill Development
- Kings Hill Precinct Areas
- Monarchs Rise DA
- Monarch Rise Site
- Development Precinct 1
- Proposed residential land to be conserved
- Proposed revegetation area
- Conservation Land
- Breakages in connectivity that prevent species movements
- Landscape connectivity Koala
- Landscape Habitat Link
- Landscape Link
- Local Link
- Stepping stone
- Western Habitat

## Quarry and development boundaries, haulage routes and 2012 PSC connectivity mapping



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