

# Navigating Australia's airwaves - exploring spectrum opportunities

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# Today's Spectrum Canvas

- Microwave point to point
  - FX03 review
  - Millimetre Wave
  - 6 GHz review
- Wireless Broadband
  - 3 GHz Area Wide Licence
  - 3 GHz Highly Localised
  - 1.8 and 2 GHz
- Land Mobile

# Microwave Point to Point (~6 to 38 GHz)

## **Potential review of rules (RALI FX03)**

- Protection ratio?
- Minimum path length?
- Antenna compliance? (minimum front-to-back ratio)
- Channel aggregation?

Source: *"Spectrum tune-up: Shaping frequency coordination which was held on Wednesday 5th March 2025"*

# Millimetre Wave (75 / 85 GHz)

## Minor updates to rules (RALI FX20)

- Still “self coordinated”?
- No real change between point to point services
- Addition of ‘first in time’ principle for Earth Station coordination

Consultation **open** until April 7.

<https://www.acma.gov.au/consultations/2025-02/updating-earth-station-and-ptp-coordination-rules>

# 6.7 GHz Replanning

## Existing use

- **Point to point** used throughout Australia

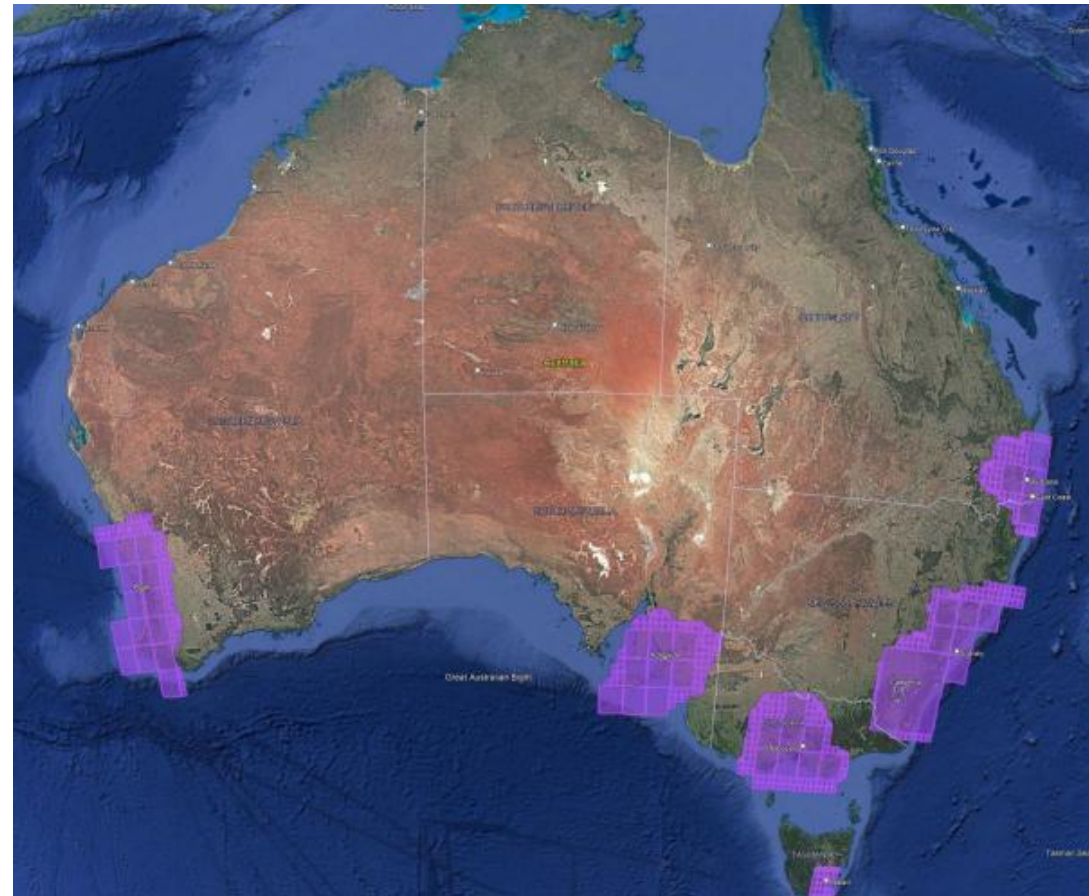
## Under consideration

- Expansion of **Wifi** (6/6e/7...) / **RLAN** (Radio Local Area Network)
- Introduction of **Wireless Broadband**

# 6.7 GHz Replanning

## Point to point

- Embargo 81 Australia Wide
- Point to point may be restricted outside of cities?



# 6.7 GHz Replanning

## WiFi / RLAN

- Expanded allocation under class licence
- 5925-6425 becomes 5925-6585 MHz
- 25 mW power limit (250 mW indoors)

**Open** consultation:

- <https://www.acma.gov.au/consultations/2025-03/remaking-low-interference-potential-devices-class-licence>

## 6.7 GHz Replanning

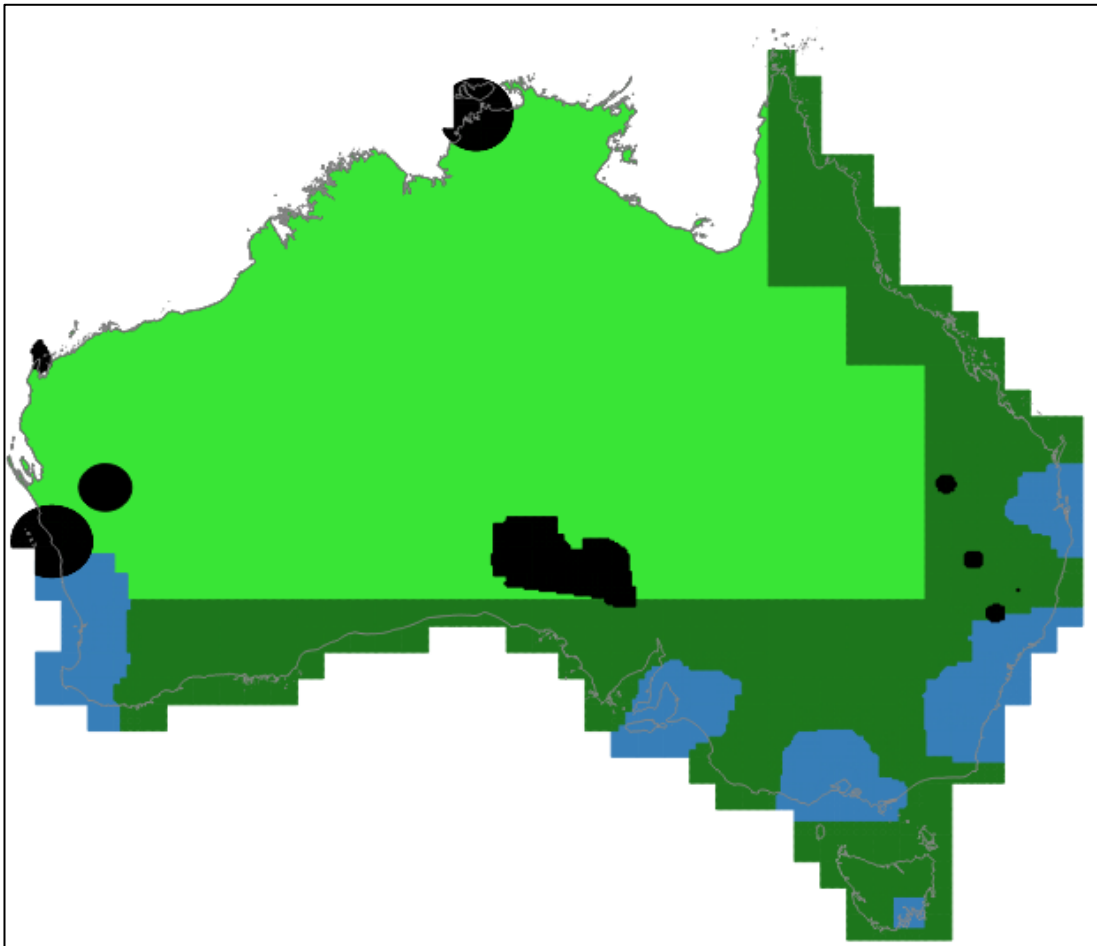
**6585-7125 MHz** - plans yet to be solidified, but;

- City areas
  - Potential for some form of Wireless Broadband to be supported
- Elsewhere
  - May see mix of point to point, wireless broadband, and RLAN

See 'outcomes' paper:

- <https://www.acma.gov.au/consultations/2024-05/planning-options-upper-6-ghz-band>

# Wireless Broadband – 3.4 to 4 GHz

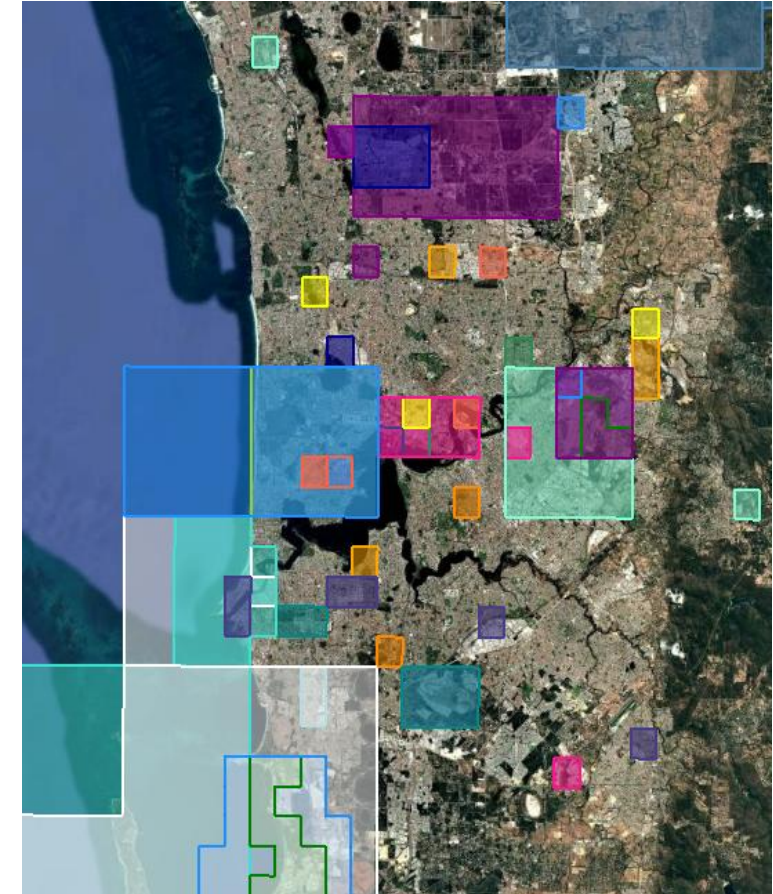


3 GHz Area Wide Licence

- Remote  
3400-4000 MHz
- Rural  
3750-3950 MHz
- Metro and Regional  
3800-3950 MHz

# Wireless Broadband – 3.4 to 4 GHz

- “Area Wide Licence”  
Now **over-the-counter!**
- Remote Area
  - 20 MHz limit per application
  - 100 MHz total limit per licensee
- Metro/Regional/Rural Area
  - 50 MHz total limit per licensee



# Wireless Broadband – 3.4 to 4 GHz Area Wide Licensing

- Main 3 GHz Page

<https://www.acma.gov.au/allocating-34-40-ghz-band>

- Remote 3.4 GHz

<https://www.acma.gov.au/area-wide-apparatus-licensing-34-40-ghz-band>

- Rural/Regional/Metro 3.8 GHz



<https://www.acma.gov.au/area-wide-licence-allocation-38-ghz-band>

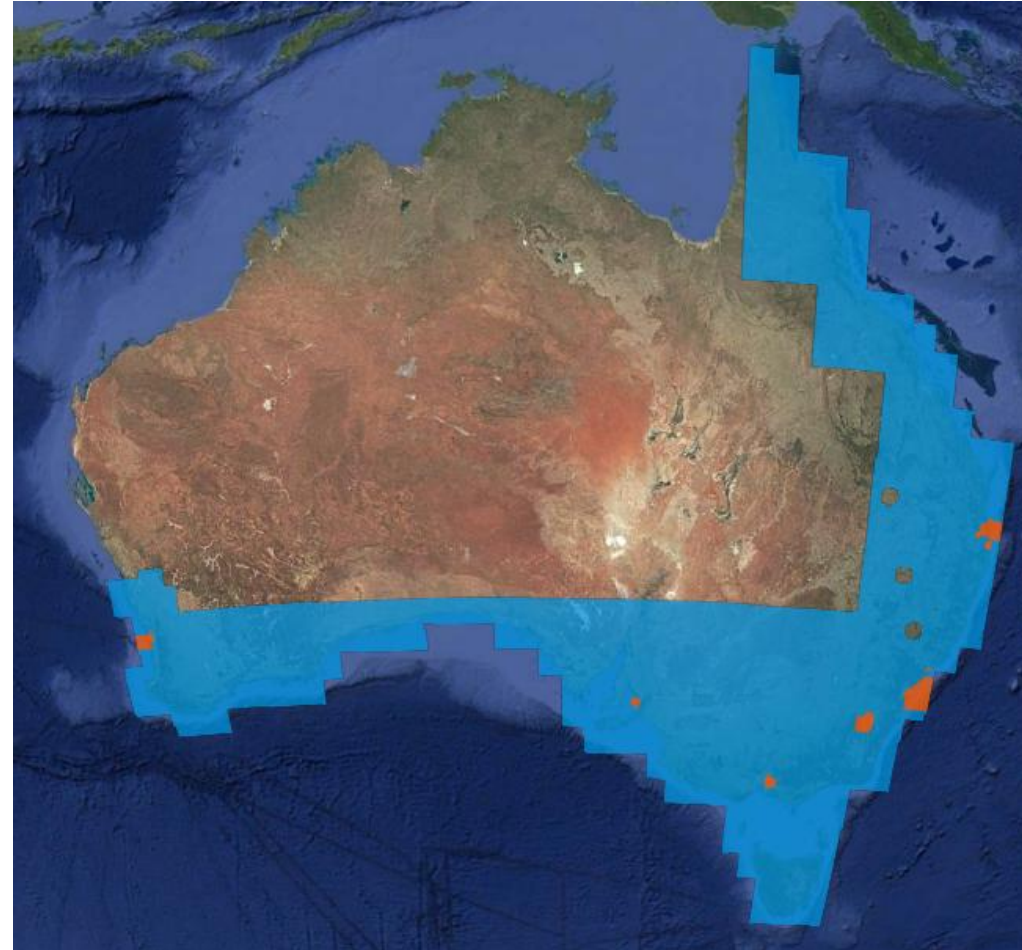
# Wireless Broadband Highly Localised Point to Multipoint

- Draft only (see RALI MS50)

*“localised private and enterprise networks, such as services at warehouses, factories, airports, ports, transport hubs, hospitals, schools and smart buildings. ”*

# Wireless Broadband Highly Localised Point to Multipoint

-  Metro + Regional  
3950-4000 MHz
-  Defined Urban Areas  
3400-3475 MHz



# Highly Localised Point to Multipoint

- Low Power Limit
  - 50 mW (17 dBm) per MHz
- One licence for multiple stations
  - Within 100m
  - Within controlled premise

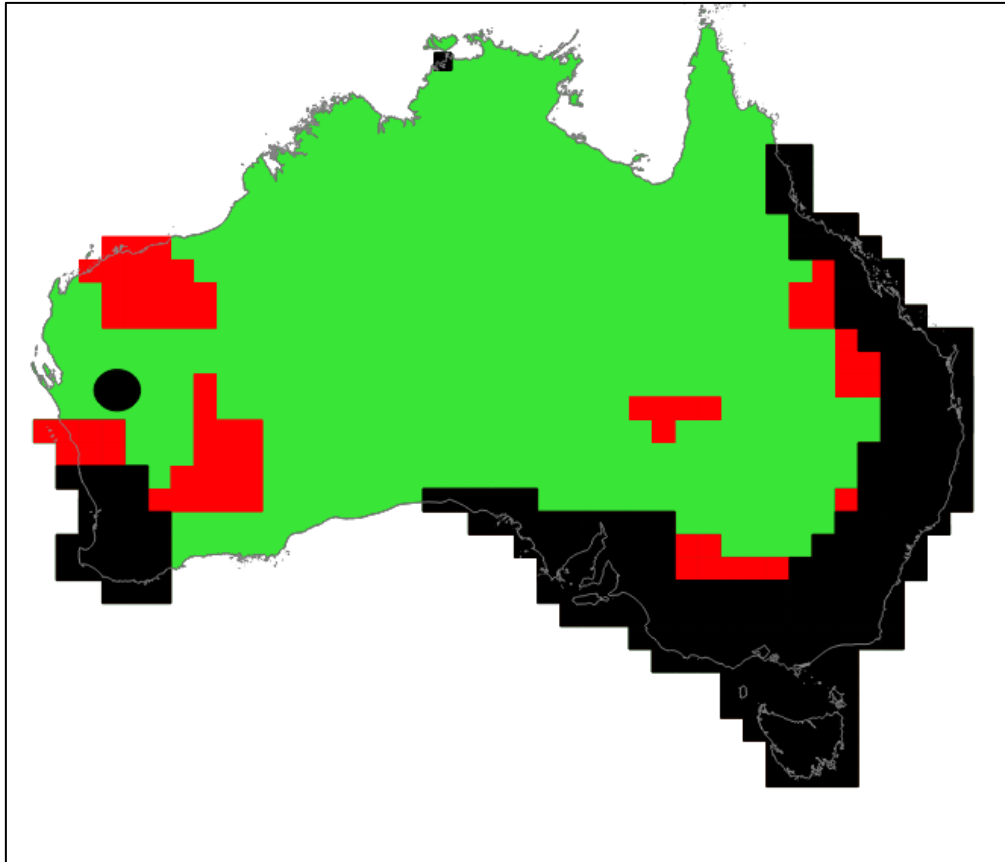
Recent consultation;

- <https://www.acma.gov.au/consultations/2024-10/remaking-fixed-licence-lcd-and-revised-arrangements-34-4-ghz-band>

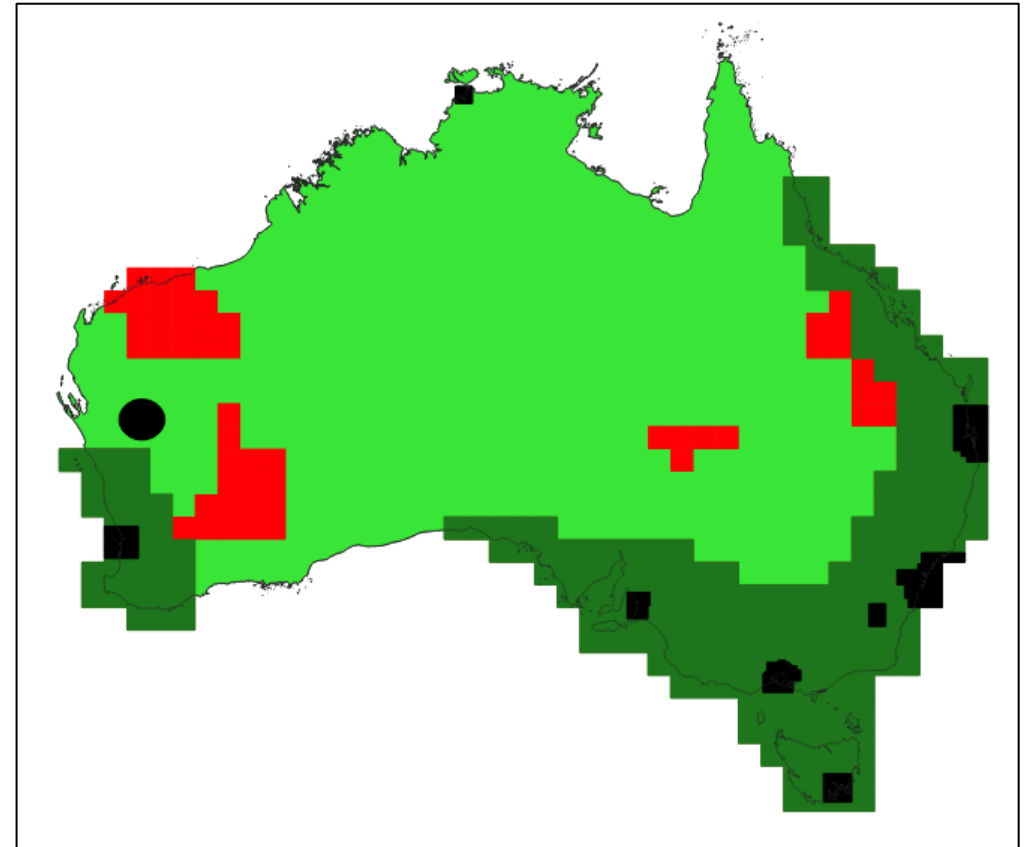
# 1.8/2 GHz Review

- Underutilised by mobile network operators
- Shortage of spectrum for others
- Spectrum denial causes

# Wireless Broadband



1.8 GHz



2 GHz

# 1.8/2 GHz Review - possibilities

- Increased channel size
- “Cross band” channel limits
- Increased channel limits
- Tighter channel reuse
- Relaxed channel priority

# 1.8/2 GHz Review - possibilities

- Replan 1.8 GHz point to point
- Associates test
- 'Over the top' licensing

## Previous consultation:

- <https://www.acma.gov.au/consultations/2024-06/1800-mhz-and-2-ghz-bands-outside-spectrum-licensed-areas-review-arrangements>

# 1.8/2 GHz Review - possibilities

ACMA are considering more generally:

***“explore the use of a secondary licensing framework”***

See *“Views on alternative licensing conditions”*

- <https://www.acma.gov.au/publications/2024-12/report/expiring-spectrum-licences-acma-report-alternative-licensing-conditions>

# Land Mobile

- ACMA Internal Review (rules RALI LM08)

*“opportunities to reduce the distance constraints”*

- Potential consultation Q3 2025 at the earliest.

- Current Work Program 2025-2026
  - [https://www.acma.gov.au/sites/default/files/2025-02/draft\\_rali\\_review\\_work\\_program\\_2025-26.pdf](https://www.acma.gov.au/sites/default/files/2025-02/draft_rali_review_work_program_2025-26.pdf)

# Keep an eye on ACMA here

- All ACMA consultations
  - <https://www.acma.gov.au/have-your-say>
- Rolling annual “Five Year Spectrum Outlook” (FYSO)
  - <https://www.acma.gov.au/five-year-spectrum-outlook>