



# Timelines for Mine Rehabilitation

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# Mine Lifecycles

# Rehabilitation in a Mine's Lifecycle

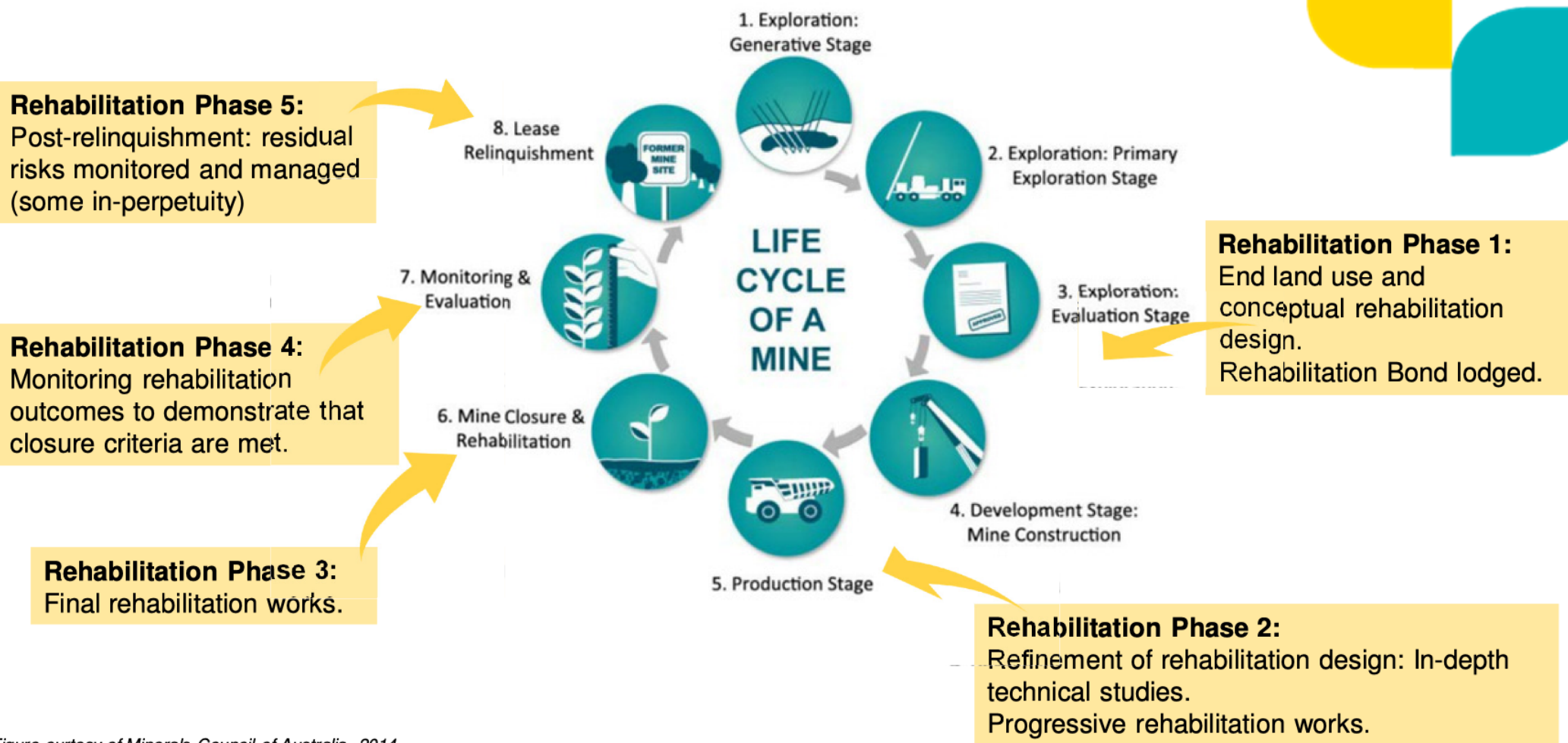


Figure courtesy of Minerals Council of Australia, 2014



# Latrobe Valley Brown Coal Mines

| Mine      | Start of Mining | End of Mining | Lifespan |
|-----------|-----------------|---------------|----------|
| Yallourn  | 1921            | 2028          | 107      |
| Hazelwood | 1955            | 2017          | 62       |
| Loy Yang  | 1981            | 2048*         | 67       |



# Rehabilitated landforms

| Mine      | Scheduled Closure | Weight Balance (GL) | Full Pit Lake (GL) |
|-----------|-------------------|---------------------|--------------------|
| Yallourn  | 2028              | 0                   | 725                |
| Hazelwood | 2017              | 530                 | 640                |
| Loy Yang  | 2048*             | 1,110               | 1,420              |

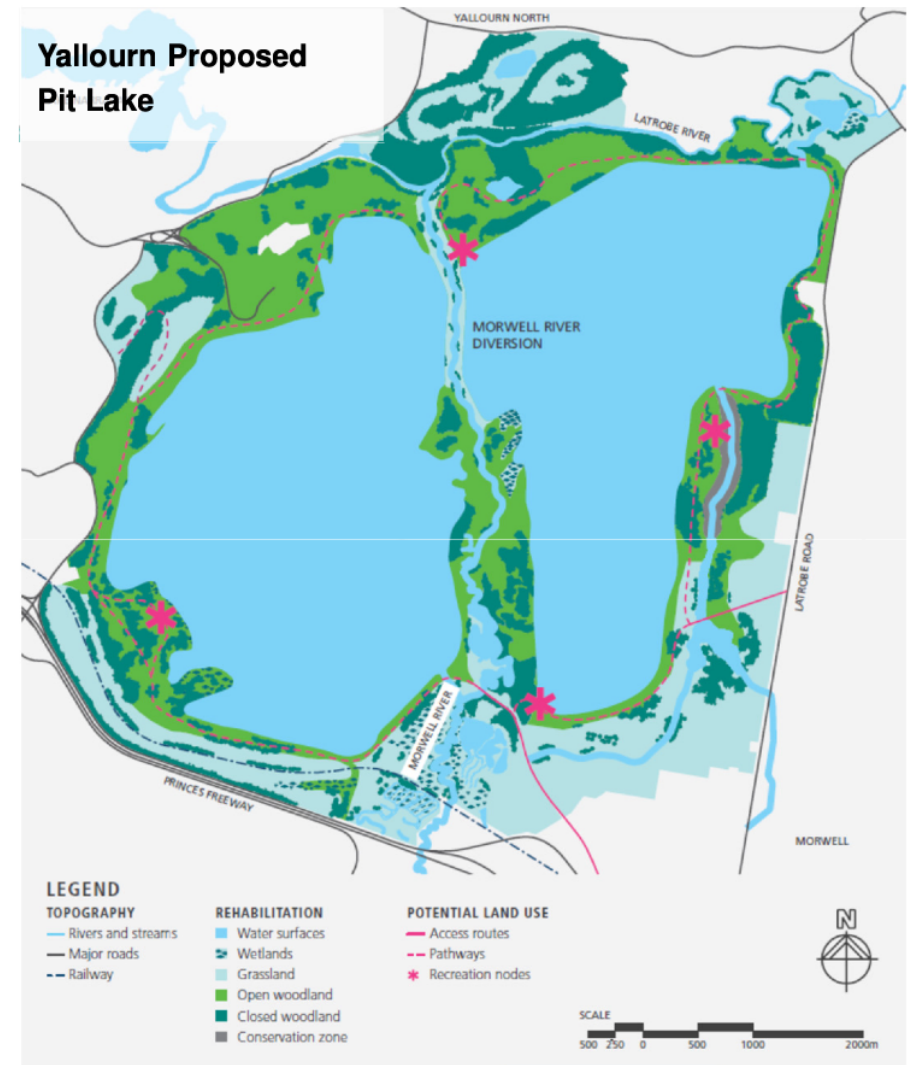
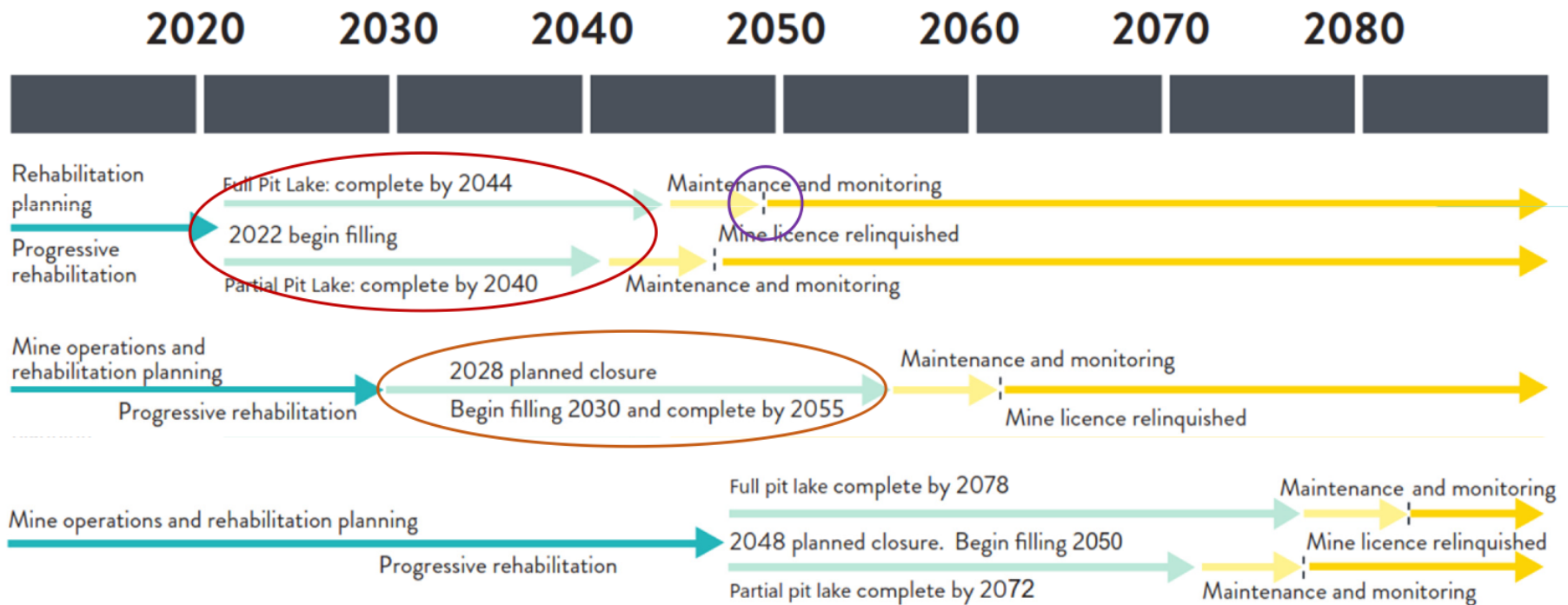


Figure from: 2016 Hazelwood Mine Fire Inquiry



# Estimated Rehabilitation timeframes

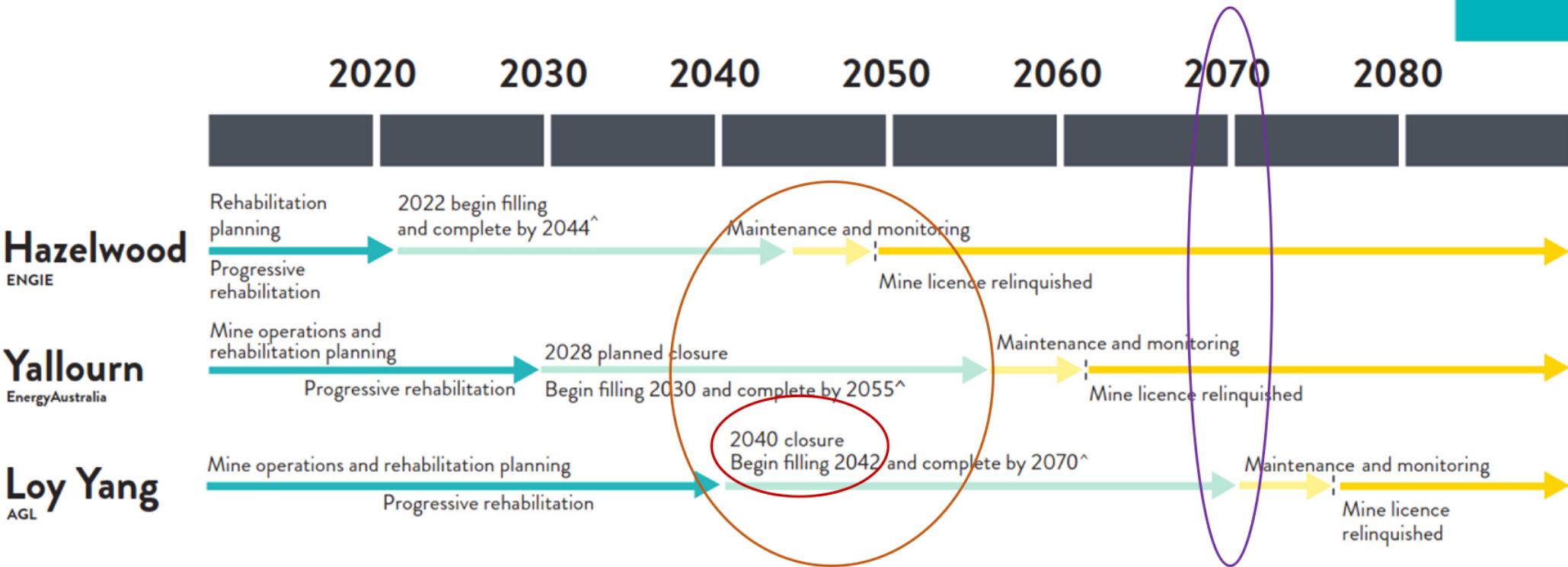
# Full and Partial Pit Lakes



^Estimated fill rates: 30GL/yr Hazelwood and Yallourn. 50GL/yr Loy Yang

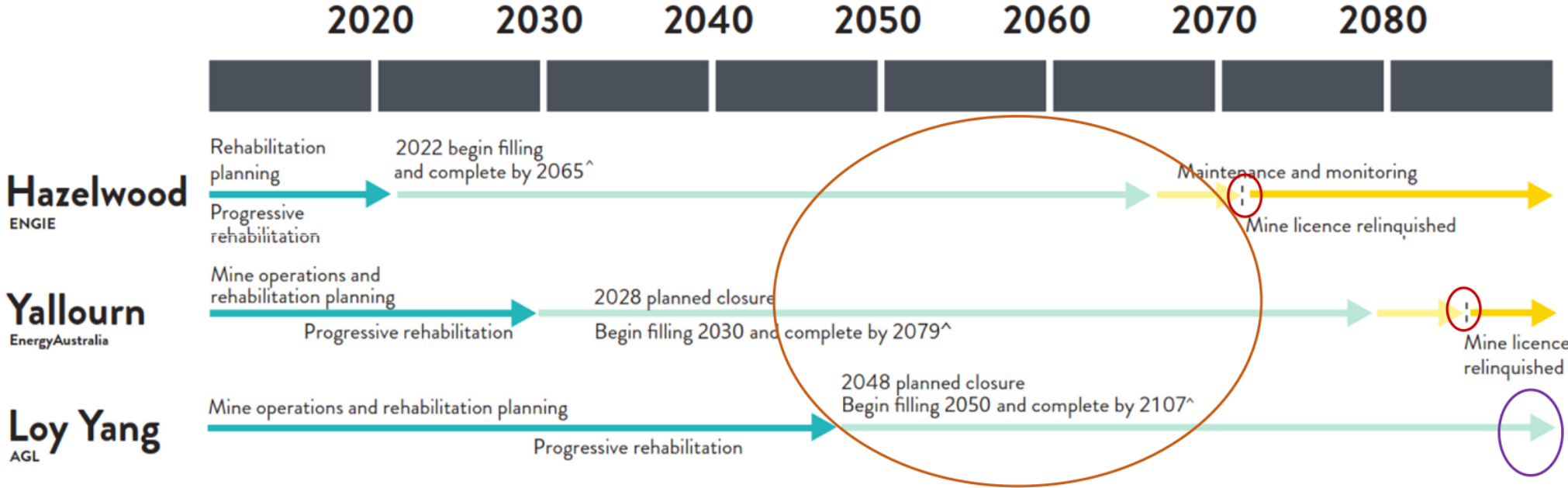


# Early Loy Yang Closure



<sup>^</sup>Estimated fill rates: 30GL/yr Hazelwood and Yallourn. 50GL/yr Loy Yang

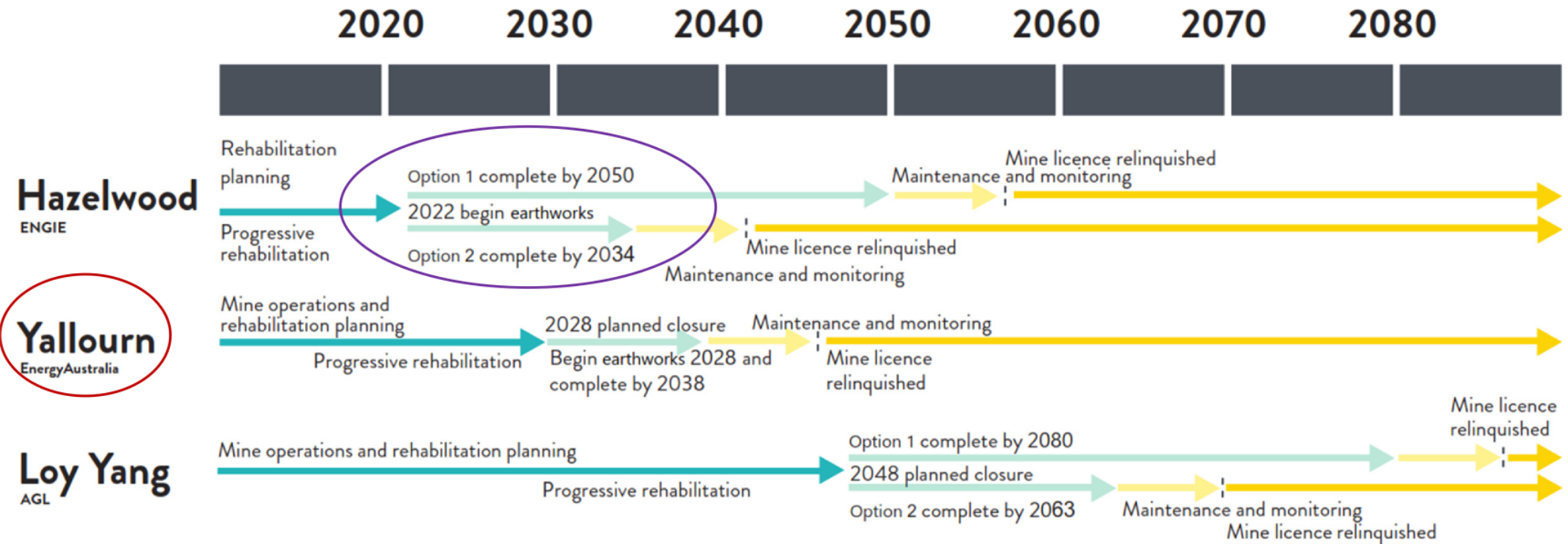
# Extended fill times



^Estimated fill rates: 15GL/yr Hazelwood and Yallourn. 25GL/yr Loy Yang



# Non-water based Rehabilitation



Option 1: Achieves weight balance in all three mines. Option 2: weight balance only achieved at Yallourn



# Summary

- Rehabilitation is a long-term undertaking, particularly for our brown coal mines.
- End goal is to achieve a sustainable landform that can be managed *in-perpetuity*.
- Progressive relinquishment would potentially enable early post-mining reuse of low risk areas of the mine licence.
- Key decision variables that affect timeline:
  - Whether or not weight balance is achieved
  - Fill rates for water
  - When in the process the licence is relinquished
  - Closure date for Loy Yang





Thank you

