

# Eyes in the skies for mine closure and rehabilitation

Dr Bridget Johnson



# Land Acknowledgement



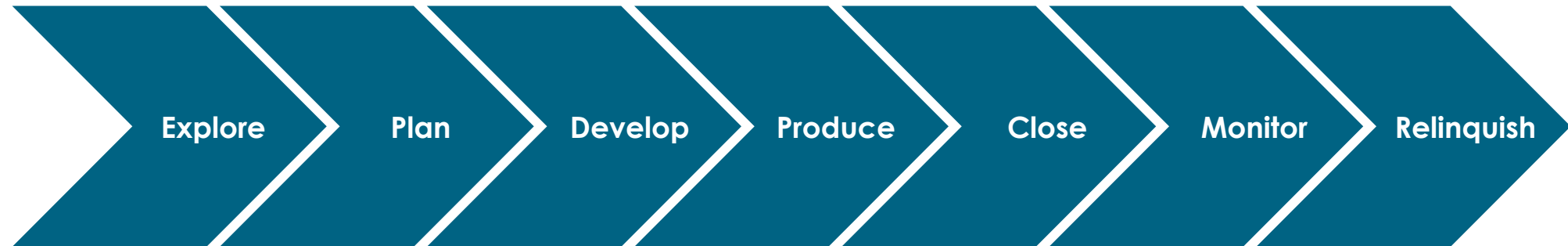
Source: Dendra Systems, 2023

# Aerial Imagery – Overview

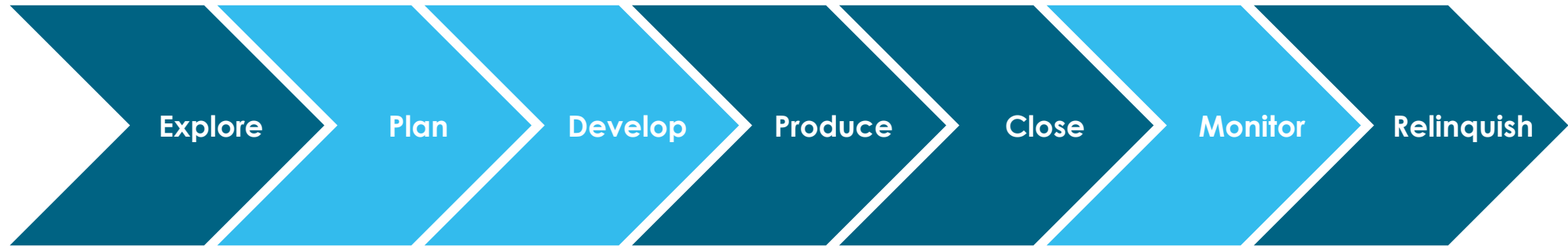


Source: Dendra Systems, 2023

# Lifecycle Stages of a Mine



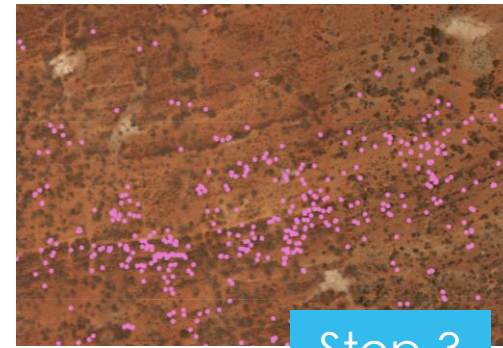
# Lifecycle Stages of a Mine



Stop 1



Stop 2

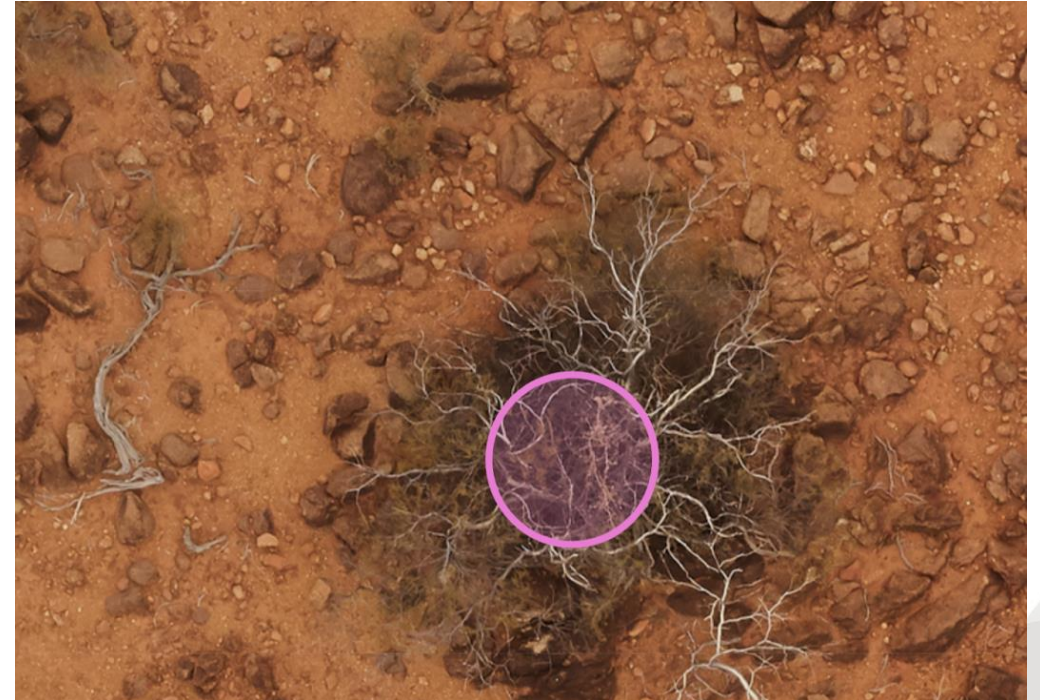


Stop 3

Source: Dendra Systems, 2023

# Stop 1 – Priority Plant Species

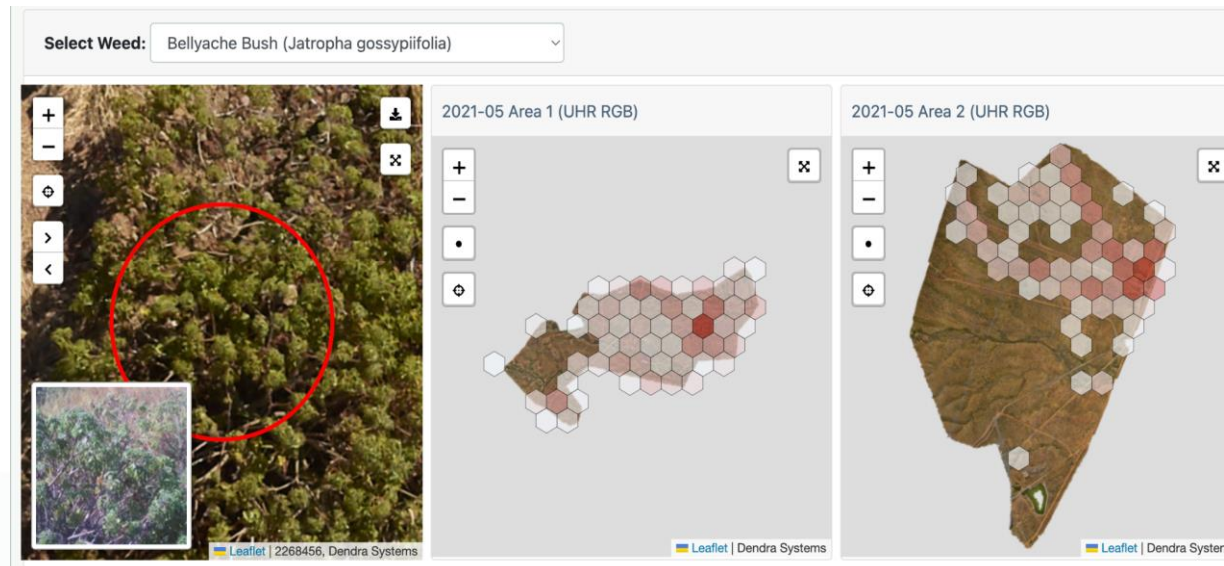
- Identifying rare species.
- Scale: Large area.
- Accurate data gathered and assessed for approvals.



Source: Dendra Systems, 2023

# Stop 1 – Priority Plant Species

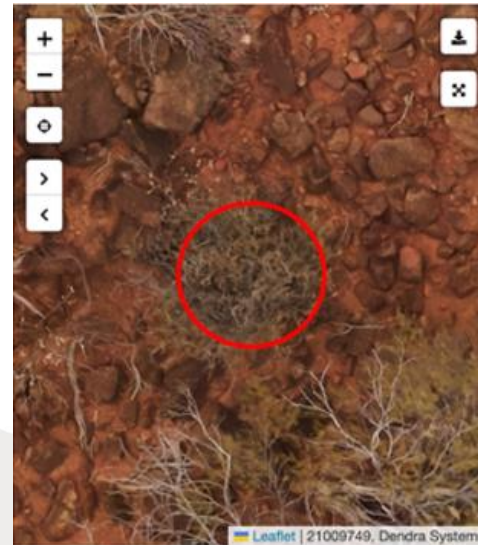
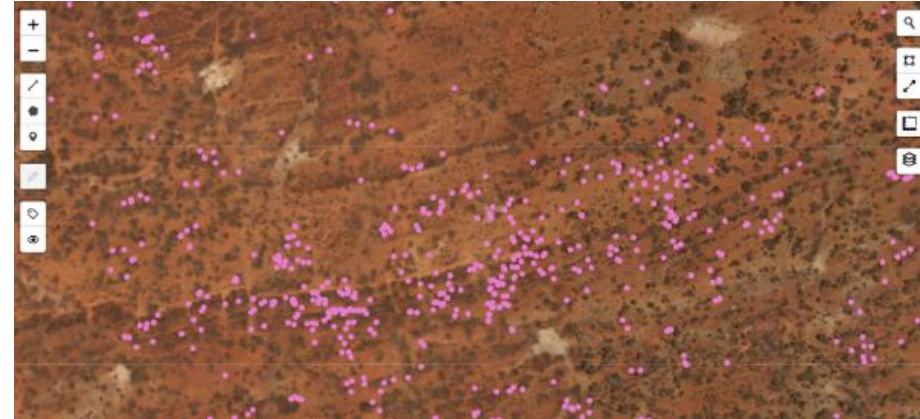
- Detecting individual plants across the tenement.
- Calculating individual plants that will be removed by proposed mining footprint.



Source: Dendra Systems, 2023

# Stop 1 – Priority Plant Species

- Data collected safely, accurately, and efficiently.
- Mining application granted.

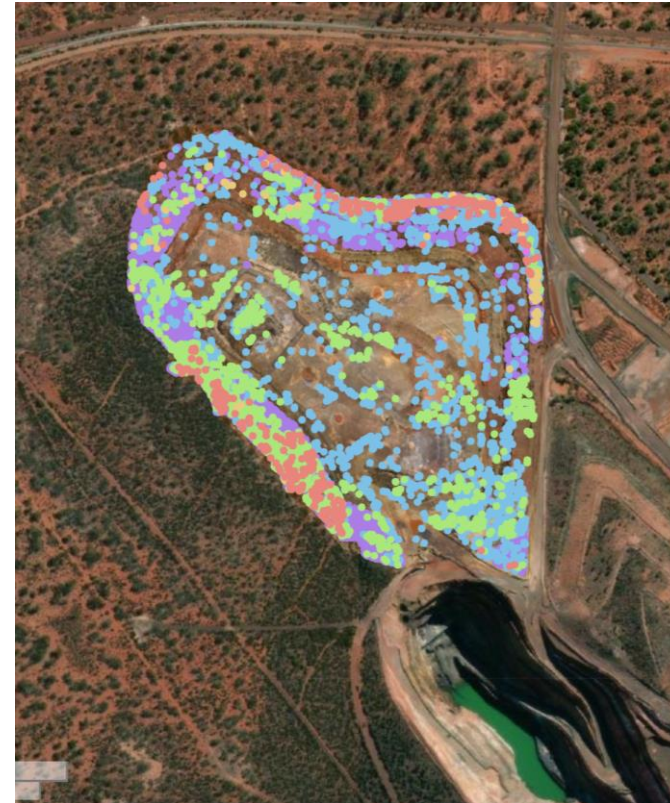


Source: Dendra Systems, 2023



# Stop 2 - Developing Completion Criteria

- Develop regional completion criteria with site-specific targets.
- Baseline vegetation data collected across large areas.

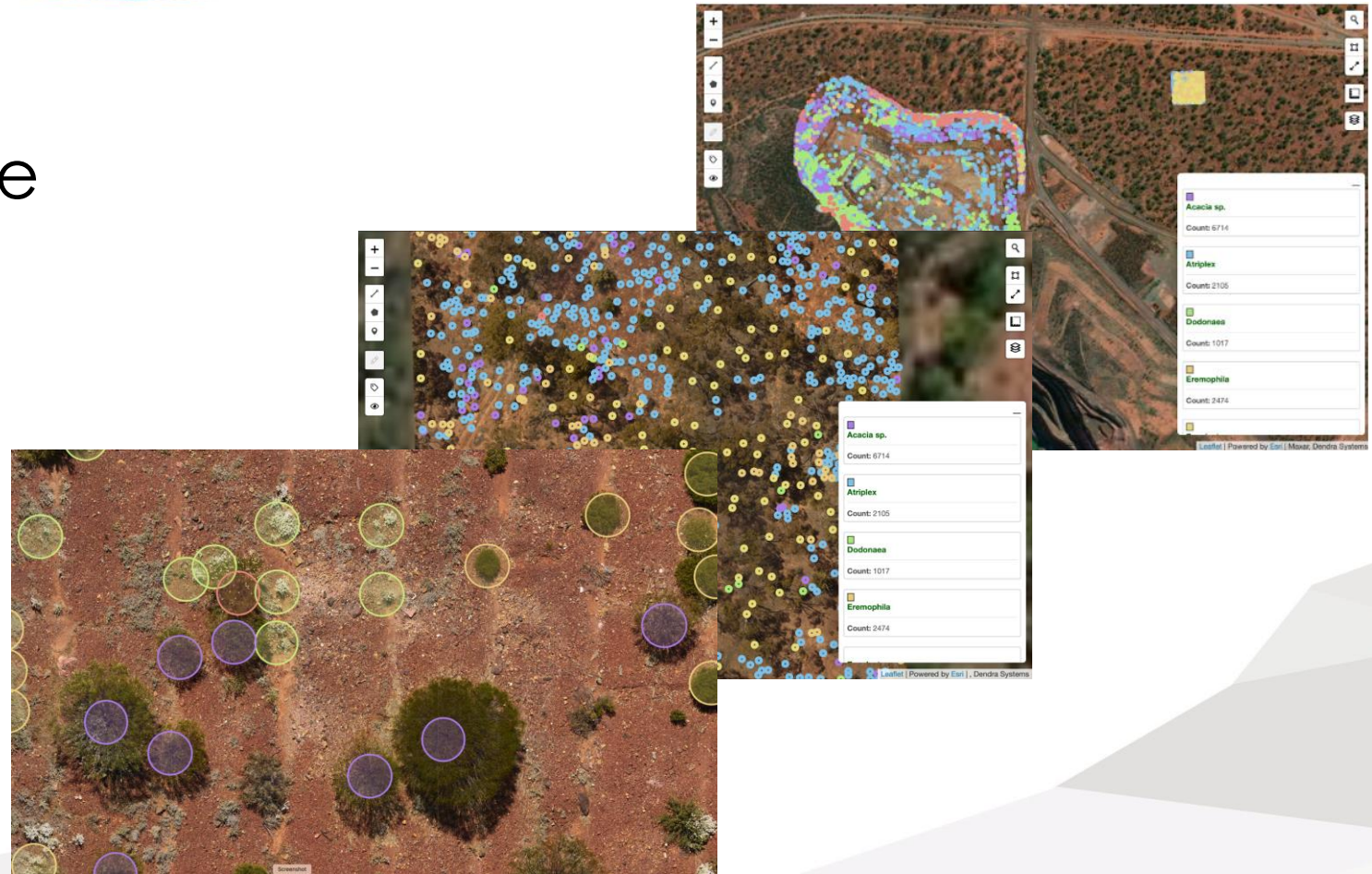


# Stop 2 - Developing Completion Criteria

Post Mine Land Use	Closure Objective	Attribute	Completion Criteria	Completion Criteria Target	Monitoring
Conservation land	Establish a self-sustaining Ecosystem	Plant Diversity	Percentage species diversity	Corresponds to local analogue site	Dendra ground truthing and aerial imagery Rehab sites and <b>Analogue Sites</b>
Regional (in this instance)	Regional	Regional	Regional	Site-Specific	Regional

# Stop 2 - Developing Completion Criteria

- Developing achievable completion criteria.
- Approved by client and regulator.



Source: Dendra Systems, 2023

# Stop 3 - Rehabilitation Monitoring

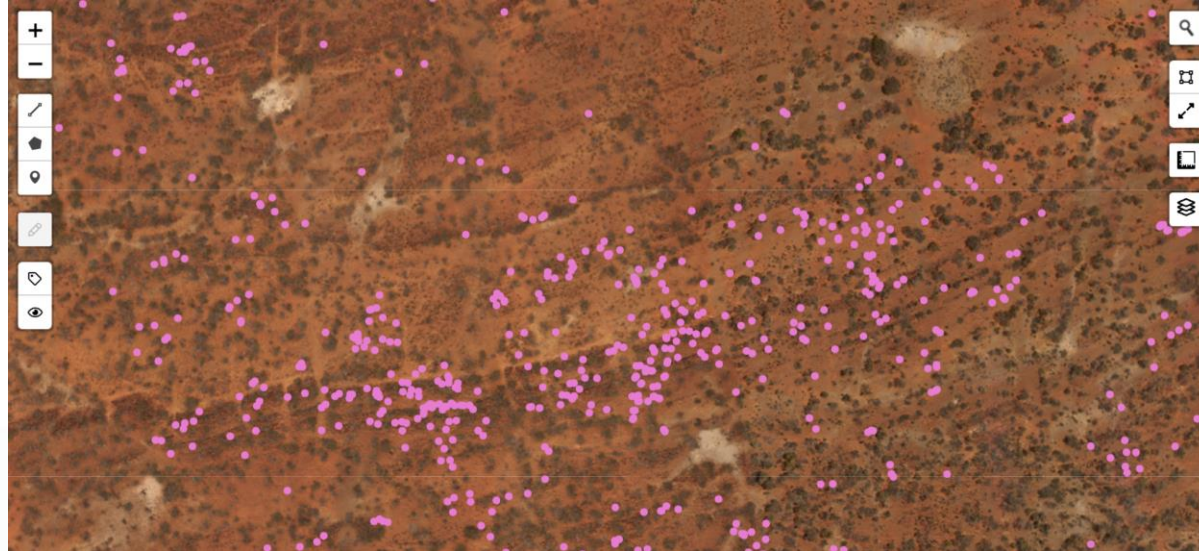
- Scale: Large area.
- Holistic approach.
- Accurate trend analysis.



Source: Dendra Systems, 2023

# Stop 3 - Rehabilitation Monitoring

- Site Wide Survey – large area.
- Identifying trends.
- Compare data to completion criteria targets.



Source: Dendra Systems, 2023

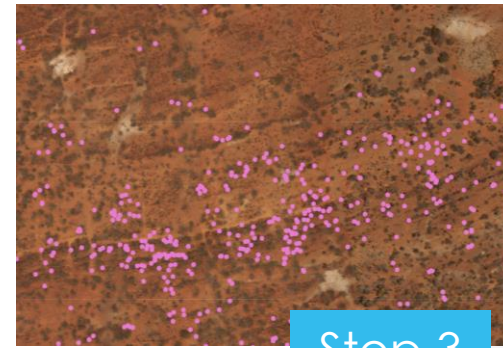
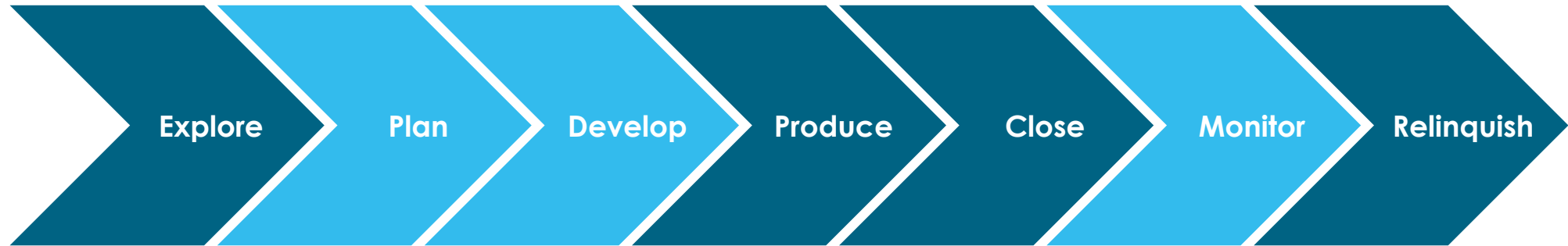
# Stop 3 - Rehabilitation Monitoring

- Mitigate environmental risk.
- Long term financial savings.
- Achieve completion criteria targets efficiently.



Source: Dendra Systems, 2023

# Conclusion



Source: Dendra Systems, 2023

# Contact Us

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