

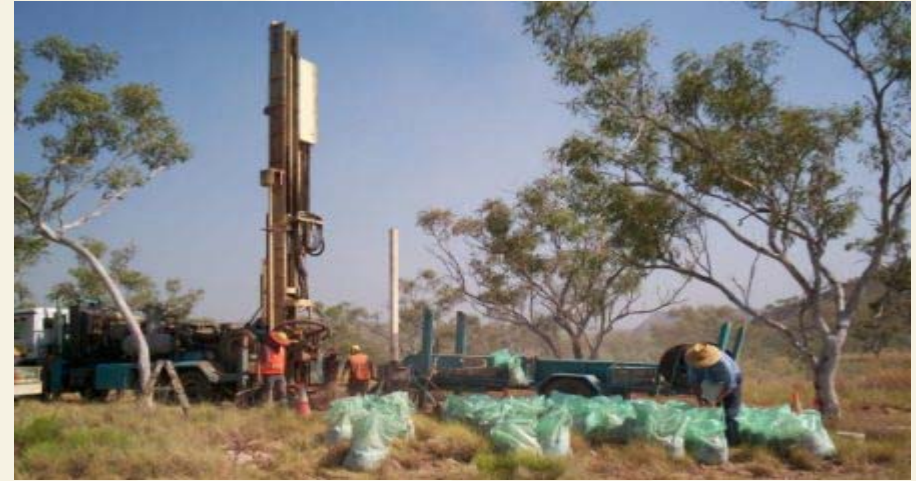
# Environmental Approvals Challenges With Exploring & Mining Iron Ore



17 November 2008

# Exploration

- Midwest BIF's
- Rare vegetation
- Rare flora
- Short Range Endemics (SRE's)
- Strategic POW's
- EP Act Part IV assessments



# Midwest BIF Strategic Review

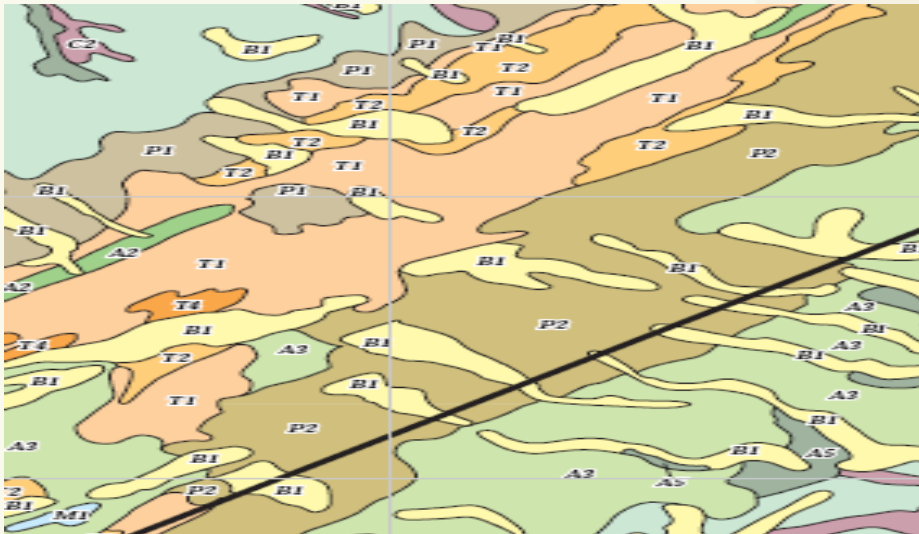


- Indicates Govt pre-disposition
- Heightened sensitivity to any exploration activities
  - DEC guidelines
  - DoIR & EPA MOU
- Heavy DEC involvement in POW assessments
- Extensive flora & vegetation survey requirement - seasonality
- Long lead approvals



# TEC's & PEC's

- Impacts to vegetation communities
  - Cumulative assessments
  - Vegetation mapping & disturbance footprint
  - Long lead item to prepare information



# Rare Flora

- Population mapping
- Impact assessment
- Regional surveys
- Pre-clearance avoidance surveys
- Extensive DEC involvement
- Seasonal survey constraints
- Limited taxonomists availability





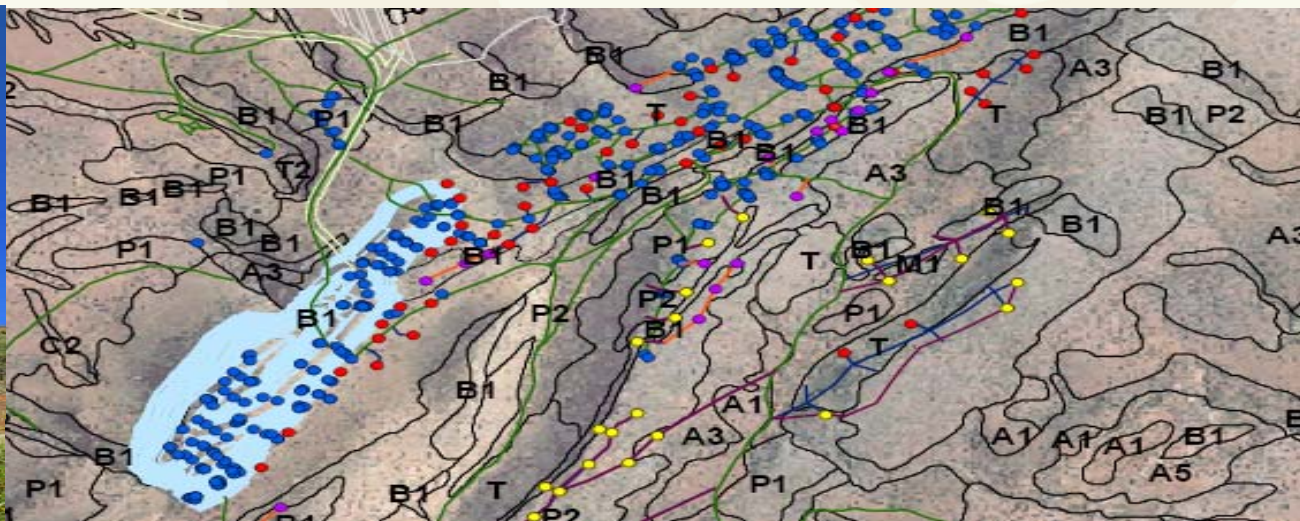
- *Idiosoma nigrum* Shield Back Spider
  - Schedule 1 Endangered
  - Long lived, low recruitment
  - Genetic & population demographic studies
  - Potential project fatal flaw
    - Ore sterilisation
  - Vibration impacts
  - Exploration monitoring required

# Strategic POW's

- Agency advice that strategic POW approach is appropriate
  - Perceived management benefits KISS
- Increased level of impact = elevation of DEC concern & approval process
- Staged POW applications allow incremental exploration
  - Require cumulative impact assessment
  - May result in impact ceiling being reached
  - BUT otherwise major schedule delays with delayed access e.g. Polaris Yilgarn project PER assessment of 111 RC holes

# Part IV Assessments

- Constraints imposed by EPA formal assessment process
  - Intensive in fill drilling impacts <100m centres
  - Large scale drilling programmes, many 100's holes
  - Mining equipment trials or mining related infrastructure e.g. surface miner trials



# EEMP's

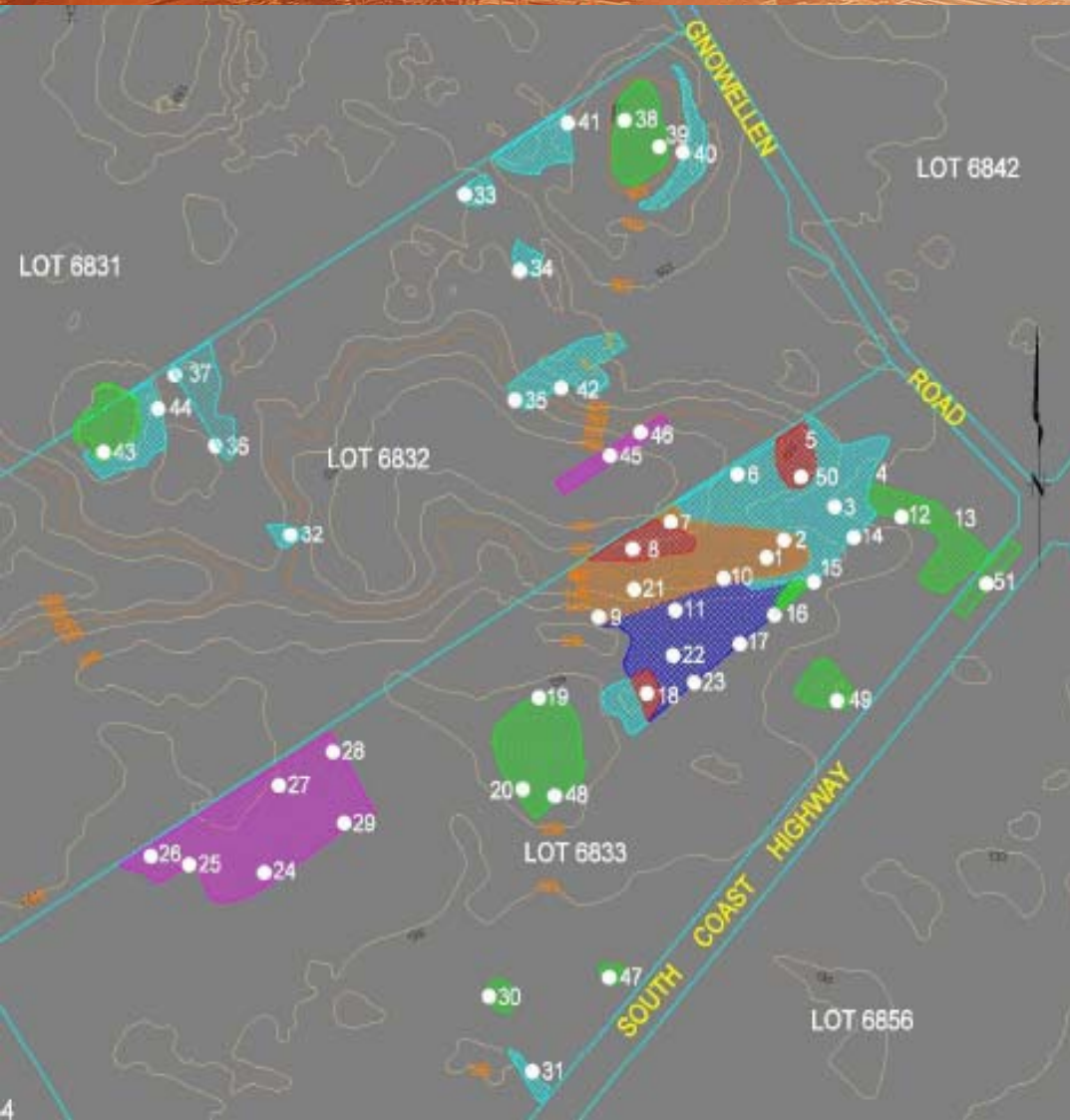
- Exploration Environmental Management Plan (EEMP)
- Pre-prepare and have DEC sign-off
- Submit as supporting document to POW applications
- Undertake periodic audits, feed results to DEC & DoIR
- Site supervision, accountability & training critical

# Mining

- Prolonged formal assessments
- New biological conservation issues emerging
- Moving conservation rankings
- Differing approach by State & Federal agencies



# PEC Vegetation



- Extensive historical clearing in region
- 4 Priority 1 PEC's
  - Listed Jan 2008

## Issue

- Revising 3 PEC's, broader distribution, <10% loss
- Very limited representation of *E. pleurocarpa* PEC
  - Proposed loss ~ 50%
  - Offset opportunity

# DRF *Commersonia* sp Mt Groper



- Single specimen collected 2005
  - Not seen since
- 3 new locations
- 1 historical location
- Initially P1, gazetted as DRF Jan 2008

## Issue

- No proposed loss of specimens
- Loss of potential habitat



# Troglofauna & SRE's

- Mesa A case study
- Prevalent over many regions & geologies
- Case by case studies required
- Long lead item due to very few taxonomic resources, mostly at public institutions
- Few samples difficult to replicate



# EPBC Act



- Carnaby's Black Cockatoo foraging & breeding habitat
- Habitat linkage

# Process Passage



## Timelines

weeks

- IPAS & PDD commenced 5 Mar 2005
- Referral lodged 13 Sept 2005 25
- Assessment level set 26 Sept 2005 2
- Scoping Document approved 26 Mar 2006 25
- PER released for public review 19 Feb 2007 48
- Proponents response submitted 21 April 2008 60
- Bulletin issued 30 June 2008 10
- Appeals Convener's report ?
- Ministerial approval ?

# Process Passage

- PDD / Referral 120 pgs
  - IPAS multi-agency review & iterations
- Scoping Document 365 pgs
  - 5 iterations through environmental DMA's
  - De-facto EIA document
  - Provision of outcomes
  - Beyond scoping exercise

# Process Passage

- De-facto EIA documents
  - PDD & Scoping Document
- Changing status as result of project information
  - *Commersonia* sp P1 → DRF
  - PEC communities
- Changing policy implementation
  - Offsets negotiations
- Differing State vs. Commonwealth perspectives
  - Carnaby's Black Cockatoo & Ring-tailed Possum
- Changing degree of relevance to project
  - Carnaby's Black Cockatoo

# Resolution ?

- Acceptable impact
  - Loss of potential *Commersonia* sp Mt Groper habitat (no specimens present = no direct impact)
- Offsets negotiation
  - *E. pleurocarpa* PEC community
    - Protection of equivalent or larger area
  - Carnaby's Black Cockatoo habitat
    - In-situ mitigation = habitat replacement
    - Ex-situ habitat protection
    - Precedent set for 4 : 1 requirement

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