

Mary River Turtle

The journey from unknown
species to EPBC Act show
stopper!

Dr Natalie Clark



Beginnings as a Penny Turtle



Mary River Turtle (*Eulsor macrurus*)



- Endangered – IUCN, EPBC Act, NC Act
- Monophyletic
- Endemic
- Sexual dimorphism

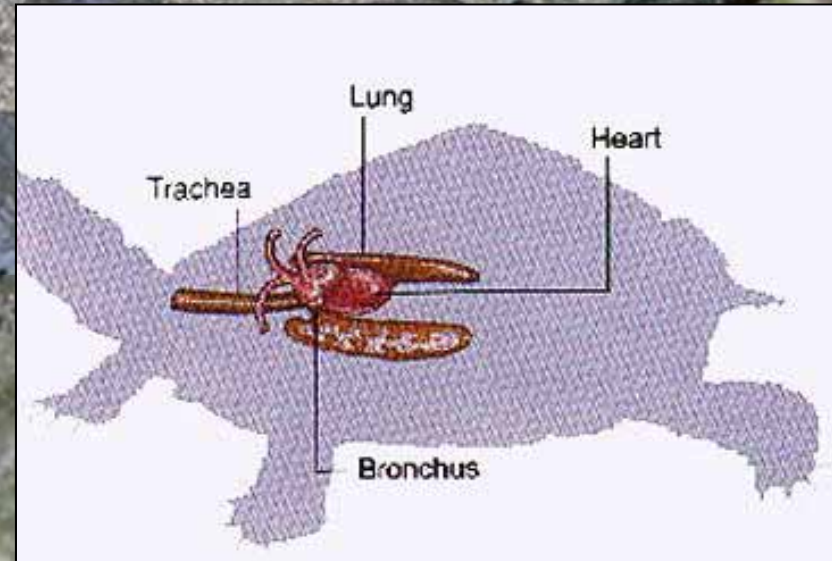
Mary River Turtle (*Eulsor macrurus*)

Specialist species

- Pool-riffle-run habitats
- Nest site fidelity
- Bimodal respiration



Mariana Campbell



Threats

- **Recruitment**

- 95% decrease 1970-2000
- Nest predation, illegal pet trade

- **Water quality**

- **Habitat degradation**





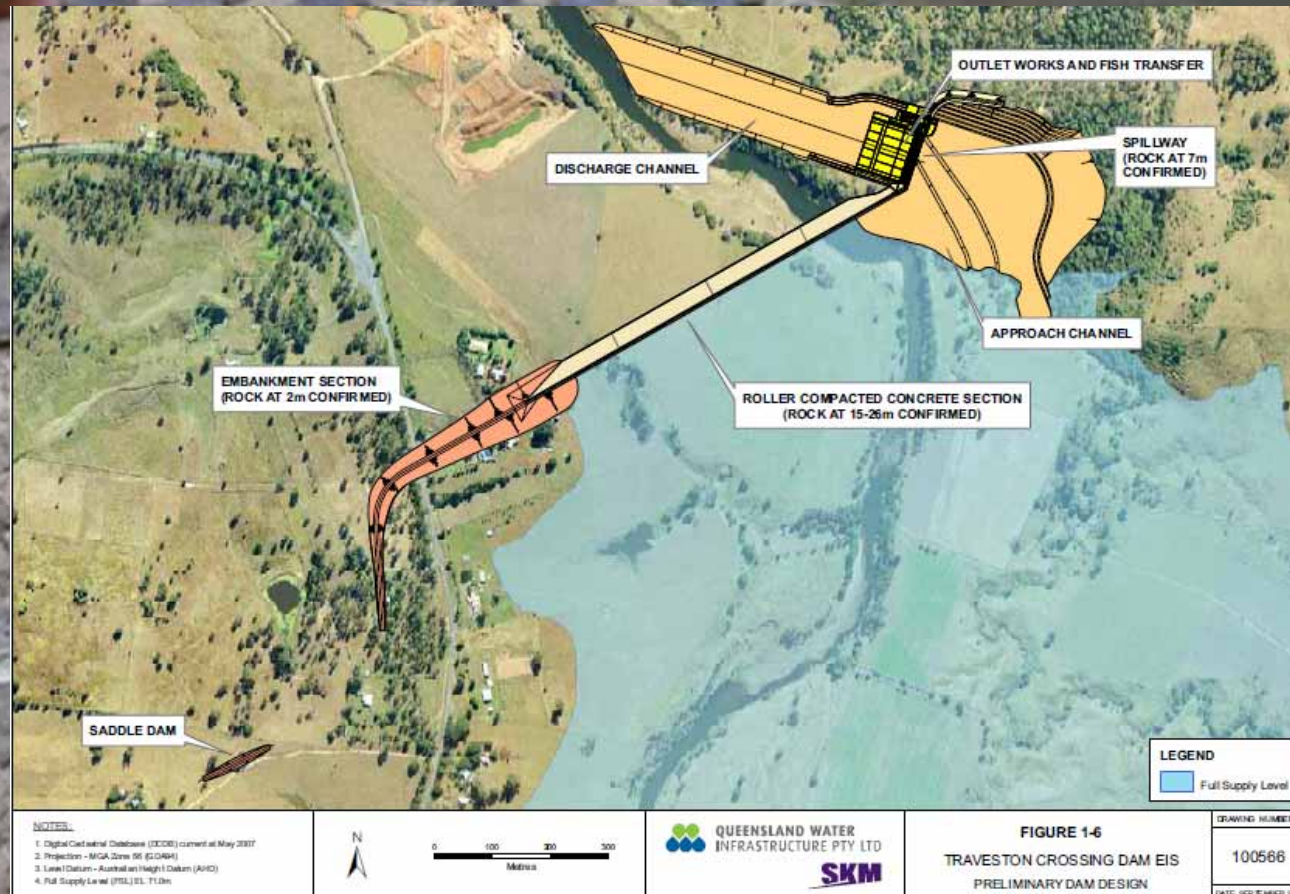
Recovery Efforts



- Flagship species
- Increasing recruitment - nest protection >600 nests, 4000 hatchlings
- Public awareness – DVD, book, merchandise, international conferences website, facebook!
- Fundraising – Aus Geo, WPS, chocolate turtles
- Research – UQ scholarships

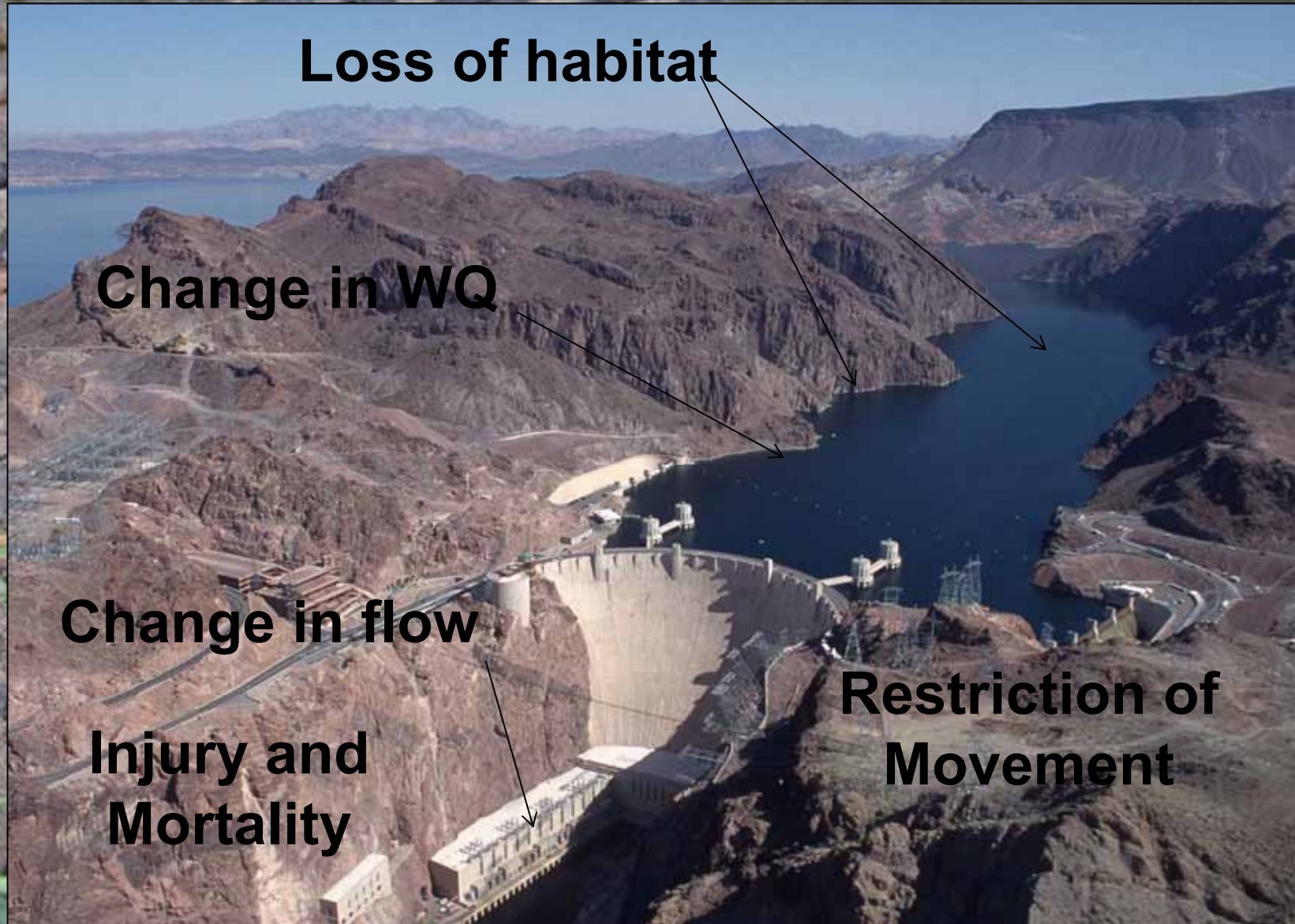


Traveston Dam -2007



- 59 m RCC, 70, 000 ML SEQ
- 153, 000 ML, 3039 ha, 36.5 km
- QLD gov support, community opposition

Impacts of River Damming



Hoover Dam Photo courtesy of USDA Natural Resources Conservation Service.

Injury and Mortality



Limpus et al 2007



Limpus et al 2007



Hamann et al 2007

Restriction of Movement



Traveston Dam EIS

- Impact assessment
- Extensive involvement of independent experts
- Development of mitigation measures and offsets



Proposed Mitigation

- Habitat restoration
- Downstream environmental flow regime
- Egg protection and translocation
- Turtle ramp and catch and carry
- Design protection features
- Captive breeding and head starting

Traveston Dam EIS

October 2009 – approved by
CoG

- extensive conditions (~1200), precautionary approach, improvement in habitat, net gain to species



December 2009 –not approved
under EPBC Act

- Serious and irreversible consequences on threatened species, not satisfied mitigation adequate, effectiveness of mitigation uncertain



Effectiveness of Mitigation

- Habitat restoration – sufficiently offset??
- Downstream flows – insufficient and not consistent with overarching WRP
- Relocation of nesting banks/eggs – unproven
- Turtle ramp – unproven
- Design features – insufficient detail to demonstrate effectiveness

Conclusion

Mary River Turtle stops Traveston Dam!

Thanks

