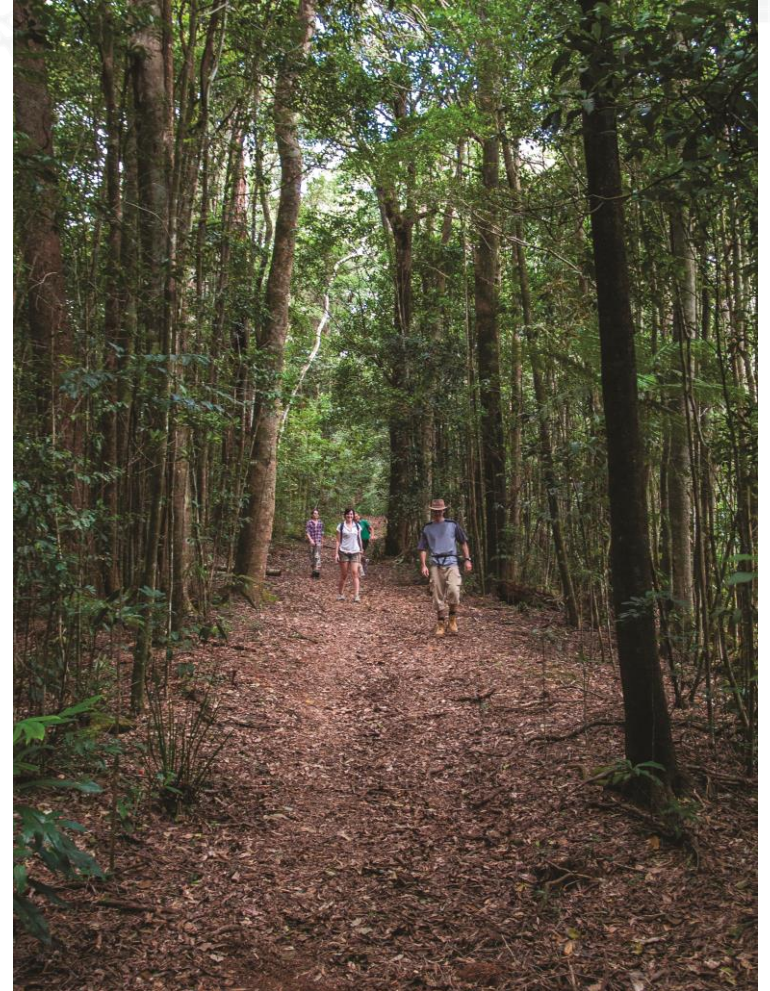


Review of Wet Tropics Management Plan

Leveraging data rich Web Mapping
Services - Telling a Story via Online Maps

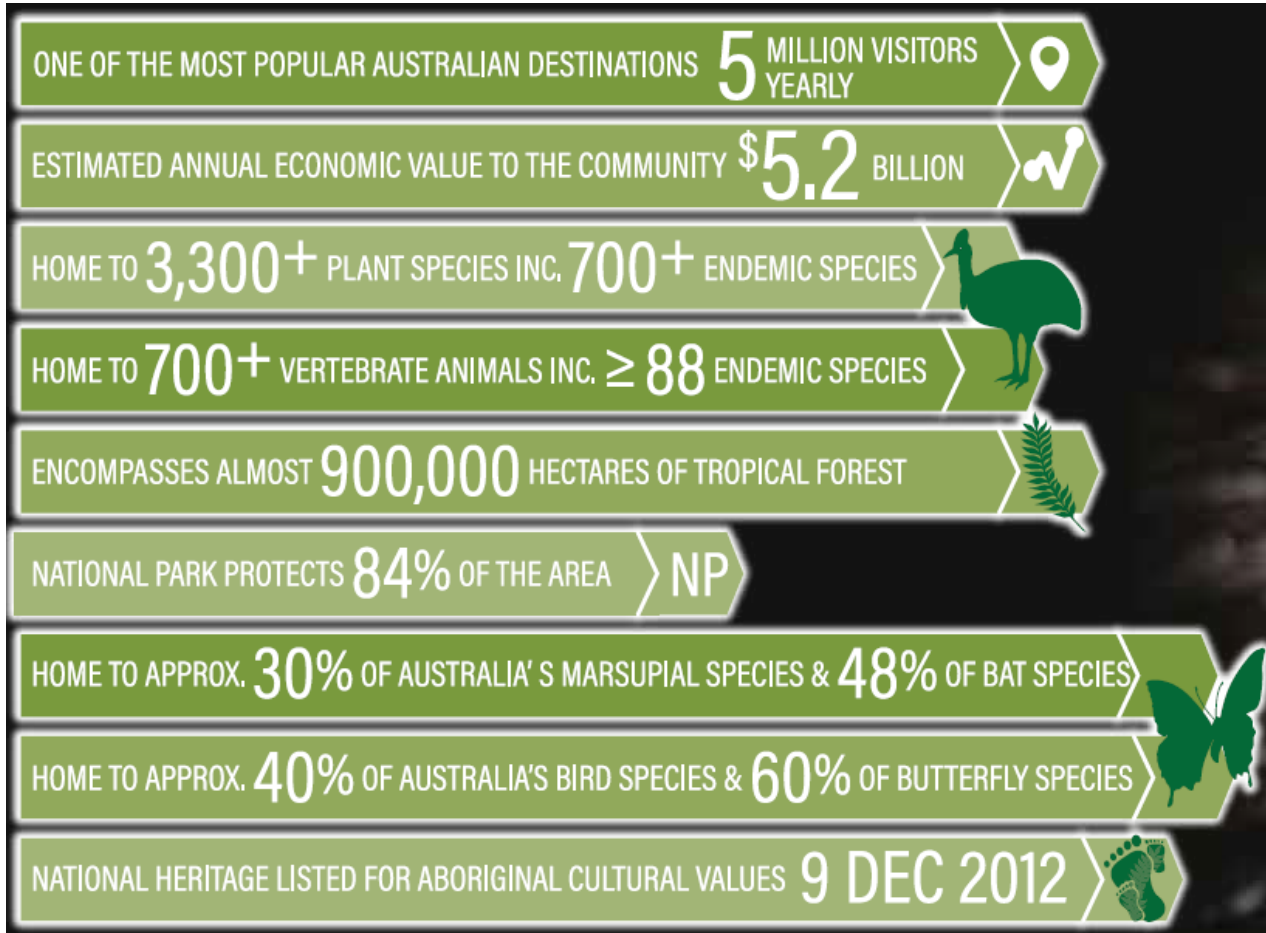
The Plan Review Story

- Who is WTMA, When, Why, What is core purpose?
- The evolution from Hard Copy maps to Digital Online maps.
- Why AGOL story maps? – How to...
- The GIS creation of Management Zones
- Key changes between the 1998 Zoning and 2019 Proposed Zoning
- Where to from here?



Why is the Wet Tropics a World Heritage Area?

“Globally significant tropical rainforest – one of the most important in the world”



How does the Wet Tropics Management Authority manage the World Heritage Area?

Wet Tropics of Queensland Protection and Management Act 1993

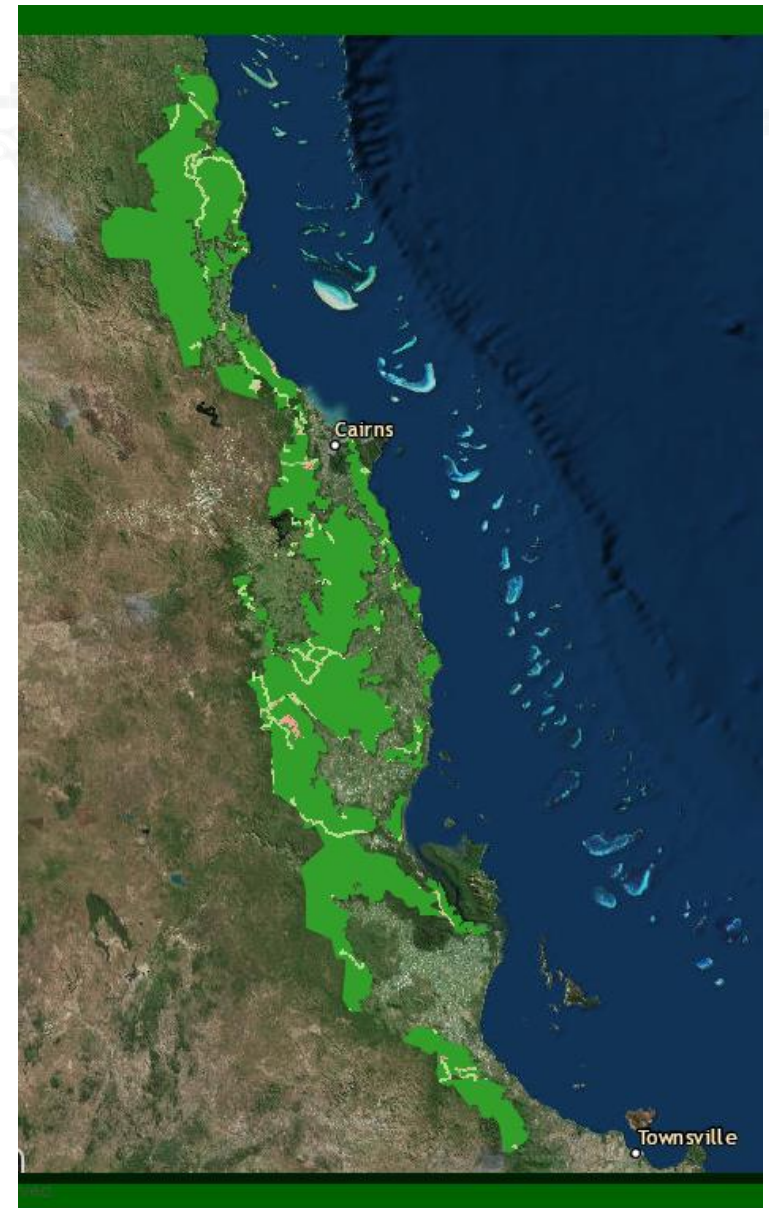
Wet Tropics Management Plan 1998
(a Regulation under the Act)

Regulates land use activities:

- in partnership with landowners, Rainforest Aboriginal People, QPWS, Councils, CSI providers
- destruction of native vegetation
- earthworks or interfering with a watercourse
- building, using or maintaining roads, structures
- planting or keeping undesirable plants or animals

Management Plan Tools

- Permits (to allow certain activities)
- Management Zones



Evolution from hard copy maps to online mapping applications within WTMA

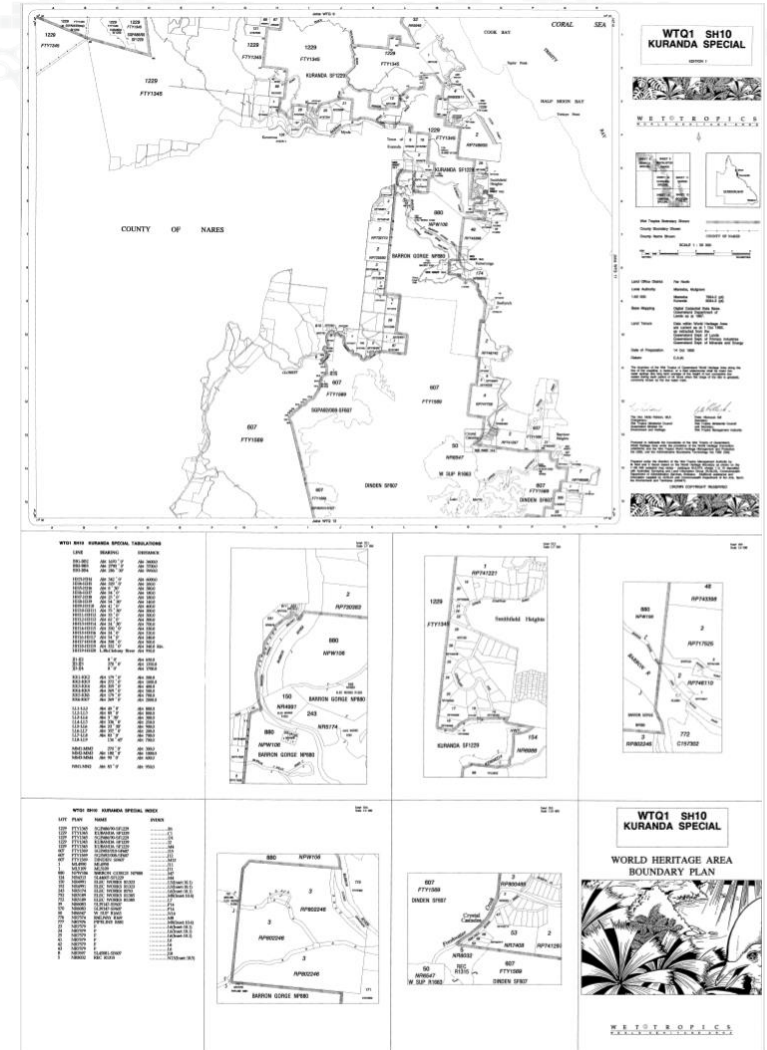
1988 (9th Dec) – UNESCO listing of WTQWHA

1988 (15th Dec) – Finalised boundary

- Proclaimed in Commonwealth of Australia Gazette.
- 13 x 1:100k map sheets on transparent film.

1992 (14th Oct) – WTQ 1:50k map series.

- A detailed description of the final boundary was prepared by WTMA.
- Adopted by Ministerial Council and accepted by both Commonwealth and State Governments.
- Also lodged with UNESCO in Paris.
- Digital GIS Datasets (ArcInfo coverage), Hard Copy map sheets.
- Later scanned and made available on website (PDF's)
- WTQWHA boundary defines the extent of Management Zones.



Evolution from hard copy maps to online mapping applications within WTMA

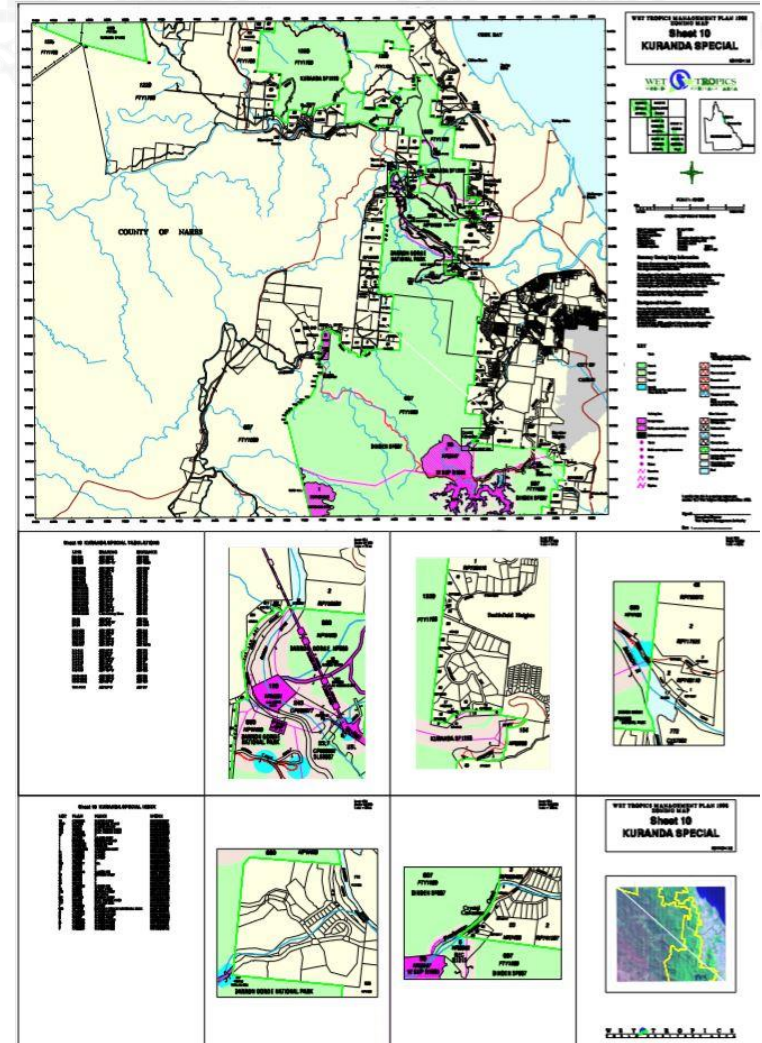
1998 (May) – WTP1 1:50k Zoning map series

- The zoning maps were created as an essential element of the *Wet Tropics Management Plan 1998*.
- Hard copy map sheets, Digital Dataset (KMZ) and PDF's available via Website

2011 (Feb) – Draft WTP2 1:50k map series

- Part of the Plan Review that occurred in 2009-2011.
- Never achieved Ministerial/Cabinet sign-off therefore proposed changes to Management Zones never adopted.
- Hard copy map sheets, Digital Datasets and PDF's

2012 – NOTE: Introduction of the Qld Open Data Platform (proliferation of Online Mapping Apps)



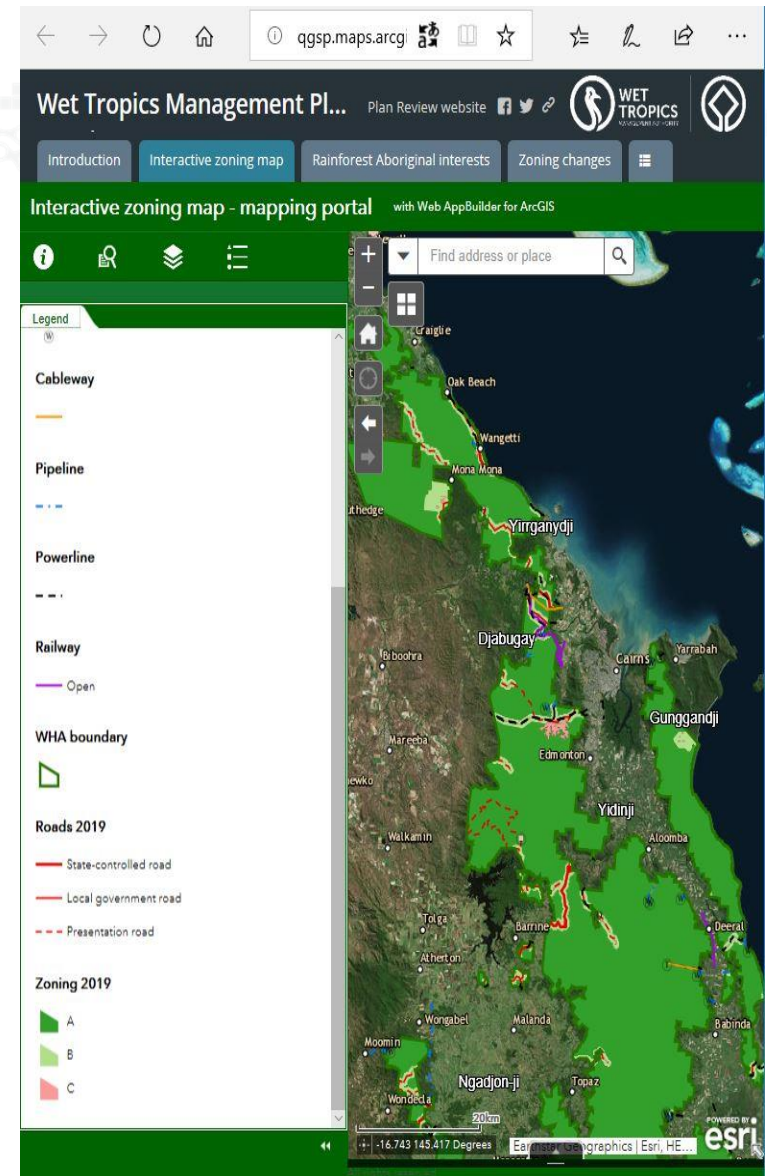
Evolution from hard copy maps to online mapping applications within WTMA

2017 (Apr) – Mapping App Phase 1 consultation

- ESRI Story Maps – Mapping Application hosted on Terrain NRM AGOL account (Gary Searle the principle architect). Accessible via link on WTMA's Plan Review website.

2019 (2nd Mar) – Mapping App Phase 2 consultation

- ESRI Story Maps – Mapping Application hosted on WTMA AGOL account. Accessible via link on WTMA's Plan Review website.
- WTMA now had control of the creation and modification of Story map
- The same look and feel was retained from the Phase 1 Mapping App.



Why ArcGIS Online?

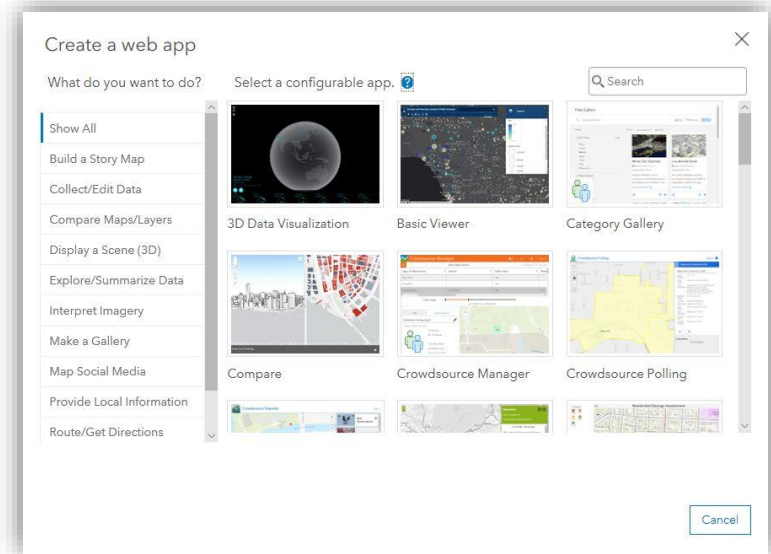
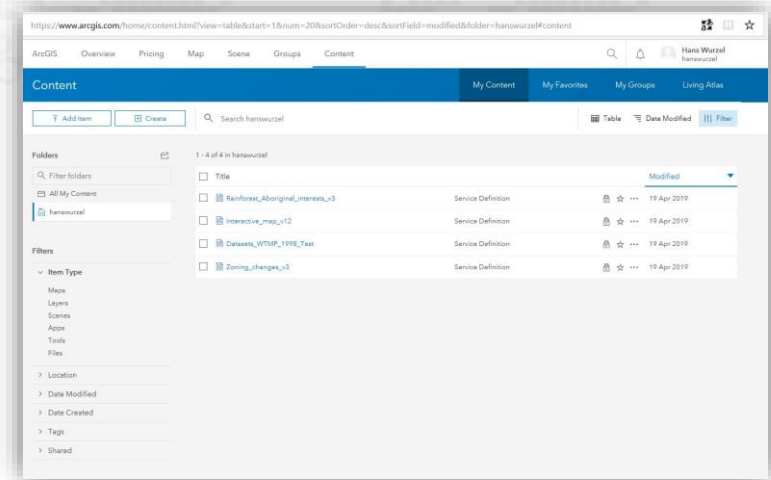
How to...

Path of least resistance

- Dept Environment and Science (DES) already had an ArcGIS Online account.
- DES users/content creators able to get elevated privileges to allow publishing of mapping apps.
- No extra hoops to jump through.
 - Allows customisable mapping apps
- NOTE: This may change when 'Qld Portal' goes live.

How to... Creating a Web Mapping App – Simple's

- Step 1) Need to add content to user account.
 - Share As Service from ArcMap.
 - Add an item from the web (WMS, WFS, KML). Can use the link on WTMA's website for the WTQWHA boundary or Management Zone KMZ
- Step 2) Choose a Web App template
 - Use the WHIZZYWIG approach to populate with text, pictures, links, widgets
 - Publish to the web (embed, share, link).



The GIS creation of Management Zones

Geoprocessing Logic

- Simple on the surface
- The 1998 Management Zones hard to apply consistently in the field.

Management Zones 1998 – Distance from Disturbance model

- Protection through Partnerships Policy – Prior to Management Plan.
- Four Zones identified based on landscape integrity and management/human presence.
 - Core Natural – Zone A
 - Future Core Natural – Zone B
 - Natural – Zone C – Note: Had inconsistent buffers
 - Visitor Facilities – Zone D

ArcMap ModelBuilder – Management Zones

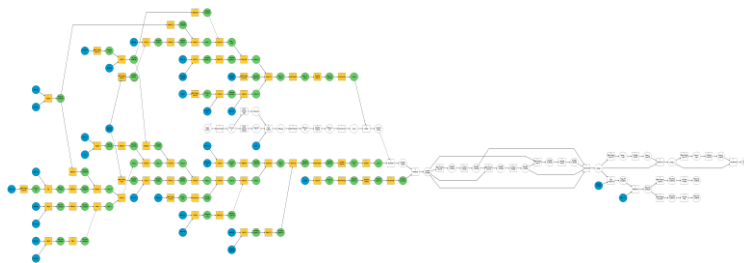


Table of Zoning Rules

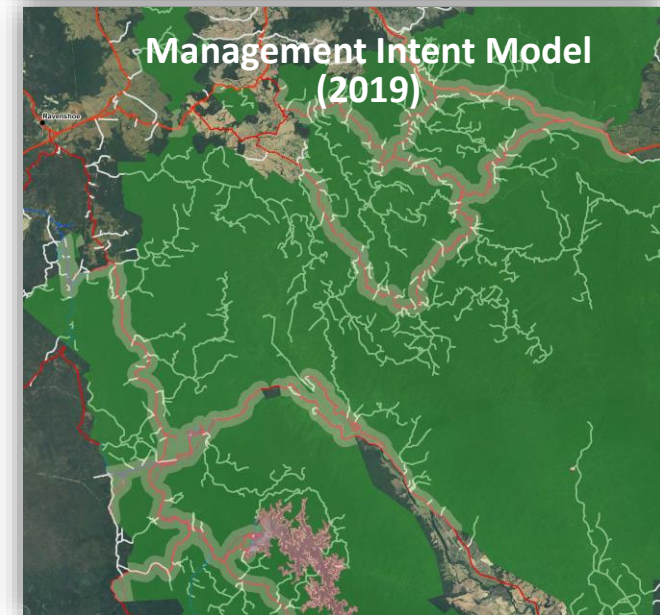
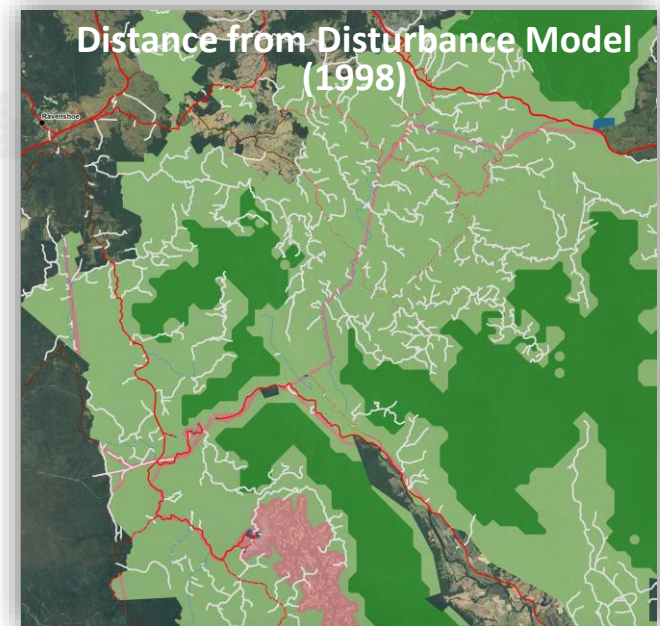
The Wet Tropics of Queensland World Heritage Area is Zoned A except for areas around the following features: -

Feature		Zone Boundary Generation Rules		
Type	Notes	B	C	D
Cableway	Tower footprint and base station(s) only.		50m from centre point of tower or station	
Clearing	Clearings associated with identified land-use.		Boundary of clearing ¹	
Community Water Infrastructure	Infrastructure for community purposes only.		50m from centre point	
Pipeline	Infrastructure for community purposes only.		50m from centre line	
Powerline	Where there are multiple conductors, centre line taken from each.	500m from centre line	50m from centre line	
Railway	Qld Rail only (excludes cane rail)	500m from centre line	50m from centre line	
Road	Road depicted on zoning map as Highway, Local Access or Presentation ²	500m from centre line	50m from centre line	
Road	Road depicted on zoning map as Presentation Restricted or Management ³	Nil	Nil	
Quarry	Identified for ongoing use subject to permit.		Footprint of area ⁴ or 50m from centre point	
Tower	Community services infrastructure towers only.		50m from centre point	
Zone D Visitor Areas	Refer to s.21 "Wet Tropics Management Plan 1998" regarding management purpose of Zone D areas.			Footprint of area ⁵ or 75 m from centre point or centre line
Waterbody	Dam or other artificial waterbody for community services puposes only.		50m from full supply level ⁶	

The GIS creation of Management Zones

Proposed Zones 2019 – Management Intent model










- Focus has changed to the Management Intent for each zone. Integrity of landscape still a key consideration for Zone A, however it is assumed that area's with minimum human disturbance will recover naturally.
- Ironically the geoprocessing logic used to generate the management zones hasn't changed drastically.
- Zone B only applied to recognised roads and tracks as opposed to all known logging tracks.



Key changes between the 1998 Zoning and 2019 Proposed Zoning

Simplification of Zoning Rules

- Reduction of Zones:
 - 3 Zones – A, B & C (D absorbed into C)
- Reduction of number of Road Hierarchies and presence on Zoning Maps/Mapping Applications.
- Standard buffer widths applied to CSI for Zone C.
 - Aids land managers easily identify extent of Zone C in the field (refer to images on next slide.)
- Addition of Cooperative Management Agreements layer.

ZONES 1998	ROADS 1998
 A	 State-controlled road
 B	 Community access road
 C	 Presentation (unrestricted)
 D	 Presentation (restricted)
	 Management road

ZONES 2019	ROADS 2019
 A	 State-controlled road
 B	 Local government road
 C	 Presentation road

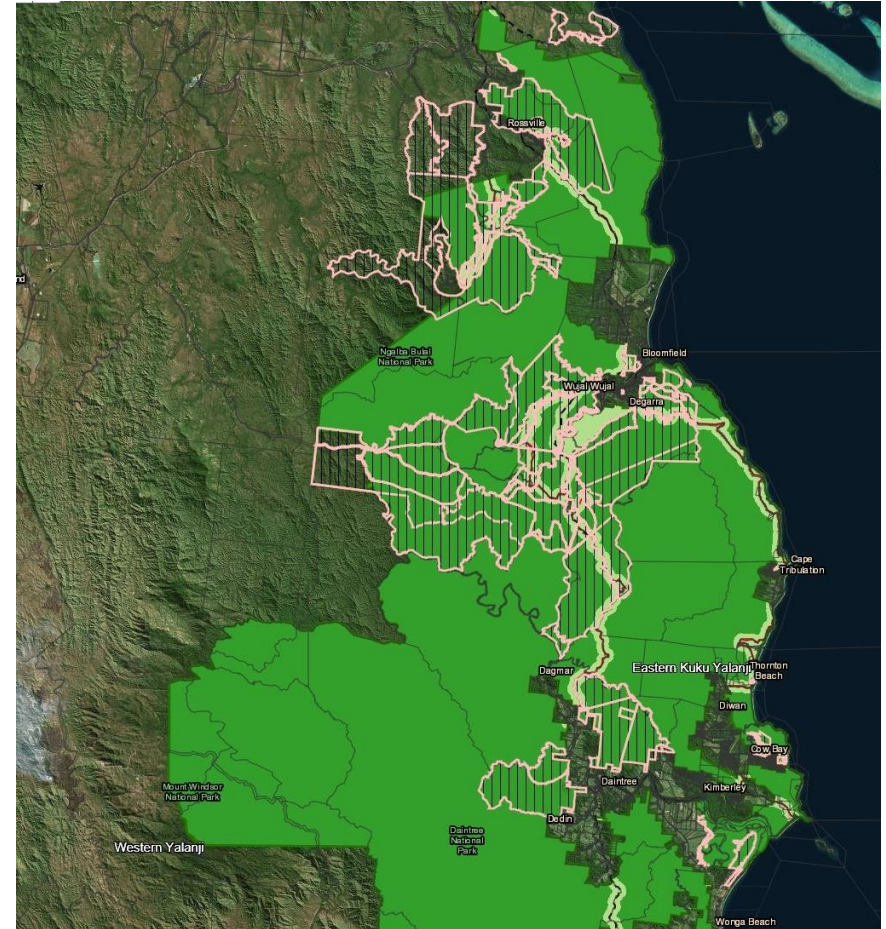
An improved zoning system

- Noah Creek - Daintree



Co-operative Management Agreements

- Critical feedback from Phase 1 consultation was that CMA's were not visible on the mapping app.
- This led to the creation of CMA register and dataset.
- CMA's included as an overlay on Phase 2 consultation mapping application.



2019 and Beyond

- Update legislation
 - Move away from Ministerial approval of hard copy maps and utilise Open Data platform.
- Open Data Platform
 - Qld Globe, Qld Spatial Catalogue (Qld Portal), SIRQRY.
- Purpose – Increase visibility and audience
 - Greater access by the general public and government agencies alike. Hopefully this will result in greater visibility by government agencies and early consultation for any development or activities planned within the WTQWHA.



QUESTIONS

Plan Review Mapping App

<https://www.wettropics.gov.au/interactive-mapping>

END - (Return to App)