



# Wilderness

Walpole Wilderness Area case study





# Wilderness - What is it?

- ❖ Concept of wilderness evolved over long period
  - ❖ For some - a concept, state of mind, an opportunity. For many - a place where nature and its forces work undisturbed by human activities.
  - ❖ 1832 - US frontier artist George Catlin suggested the government create a preserve to protect “the wild freshness of nature”.
  - ❖ 1964 - US Wilderness Act created.
- ❖ Wide range of definitions:
  - ❖ IUCN: *“large area of unmodified or slightly modified land, and/or sea, retaining its natural character and influence, without permanent or significant habitation, which is protected and managed so as to preserve its natural condition”*.



# Wilderness in Australia

- ❖ Australian Heritage Commission (AHC)
  - ❖ National Wilderness Inventory (NWI), also known as Land Disturbance Database, developed in 1986
- ❖ NSW: Wilderness Act 1987
- ❖ SA: Wilderness Protection Act 1992
- ❖ Tas: wilderness in WHA - 1992
- ❖ Australian Wilderness Society
  - ❖ Code of Management of Wilderness Areas - 1993



# CALM's Draft Wilderness Policy

- ❖ Establishment of WWA initiated draft policy
- ❖ Draft policy adopts:
  - ❖ AHC's NWI
  - ❖ JANIS definition of wilderness – 8,000ha or larger and NWI 12 or greater in forest
- ❖ Draft policy approved by Conservation Commission and supported by WA Wilderness Society
- ❖ Released for public comment
- ❖ Policy currently being finalised



# CALM's Draft Wilderness Policy

## ❖ Main points from draft policy:

- ❖ Guidelines for managing wilderness and surrounding areas.
- ❖ Wilderness classified under CALM Act section 62(1). Act to be amended so any changes tabled in Parliament.
- ❖ Mechanised transport not permitted, except for emergency or essential management.
- ❖ Commercial recreation/tourism not permitted.
- ❖ Encourages visitors to plan self-reliant recreation such as bushwalking.
- ❖ No constructed walk trails, signs, tracks, toilets in wilderness but provided in areas surrounding wilderness.
- ❖ Management consistent with Malimup Communiqué.
- ❖ Prescribed burning permitted for protection and maintenance of biological values.



# Application of Draft Wilderness Policy in the WWA

- ❖ Wilderness assessment part of 1998 CAR using NWI.
- ❖ No areas of NWI 12 or  $>$  meeting 8,000ha threshold.
- ❖ Roads/tracks in WWA impacting wilderness quality.
- ❖ Consideration of wilderness is part of the management planning process.
- ❖ CALM accessed NWI software to test effect of closing/downgrading some roads in WWA.
- ❖ Two areas of wilderness (8,200 and 12800ha) with NWI 12 or  $>$  are proposed in the WWA.



# NWI - The Primary Database

- ❖ Lines
- ❖ Points
- ❖ Landcover
- ❖ Biophysical



# Lines

- ❖ All linear information required for wilderness analysis:
  - ❖ Roads
  - ❖ Railways
  - ❖ Fences
  - ❖ Airfields, etc





# Points

- ❖ All point features required for wilderness analysis:
  - ❖ Urban/residential location
  - ❖ Urban/service location, population  $\leq 10$
  - ❖ Urban/service location, population  $> 10$  &  $\leq 100$
  - ❖ Built-up/service location, population  $> 100$



# Landcover

- ❖ All polygon land cover information:
  - ❖ Natural Cover
  - ❖ Cultural Cover
  - ❖ Built-up areas
  - ❖ Reservoirs, etc



# Biophysical

- ❖ Private Property: presence or absence of remnant vegetation.
- ❖ Logging information for respective tree species,
  - ❖ eg year last logged,
  - ❖ old growth?,
  - ❖ dieback free?
- ❖ Grazing



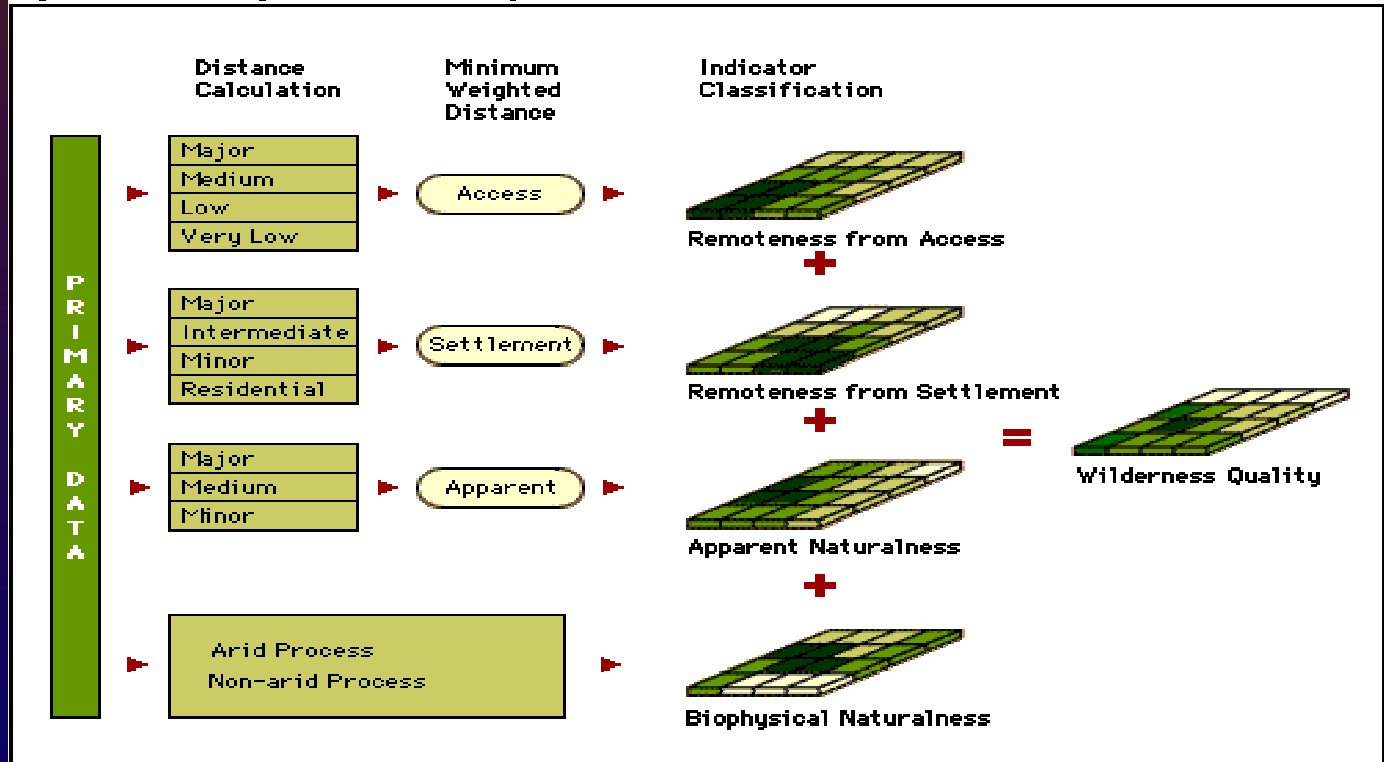
# Wilderness Quality Indicators

- ❖ Remoteness from Settlement
- ❖ Remoteness from Access
- ❖ Apparent Naturalness
- ❖ Biophysical Naturalness
- ❖ Indicators are constructed from the primary datasets, eg lines, points, landcover, biophysical.

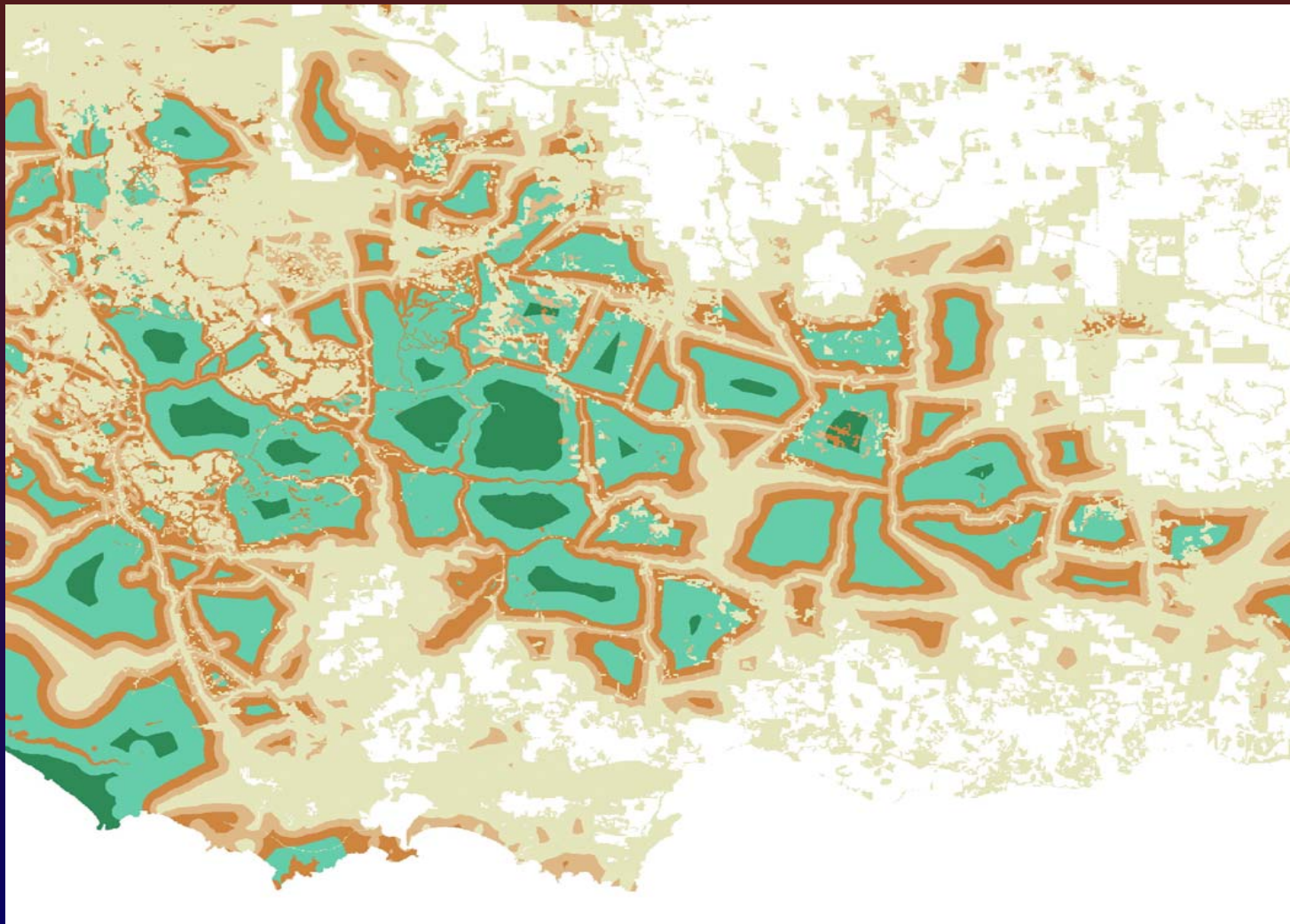
# Wilderness Quality

- ❖ A total wilderness quality index is produced by summing the standardised values obtained for the three distance-based wilderness quality indicators, and the Biophysical Naturalness value.

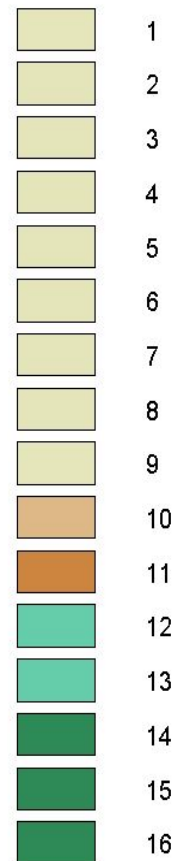
Figure 4.5 Deriving Wilderness Quality



# NWI Wilderness Rating



Wilderness Quality





# The End.



- ❖ Paul Roberts, Warren Region - Ph: 97717942, [paulr@calm.wa.gov.au](mailto:paulr@calm.wa.gov.au)
- ❖ Nathan Eaton, IMB - Ph: 93340158, [nathane@calm.wa.gov.au](mailto:nathane@calm.wa.gov.au)