Health Impact Change Modelling of Walking Activity along the Main Yarra Trail (MYT) through the NE Link Project (NELP) Domain

Progress Report on Developing Health Score Algorithms for the Active Aging Population Cohort Walking in the NELP Region

Horst (Oz) Kayak, Representing Walkers in the Yarra Valley Parklands, Australia
Presented to the NE Link Project Inquiry & Advisory Committee (IAC),

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Representing Birrarung Walkers?

• Current Corresponding Cohort
  • 200+ people who have been regular users over their lifetime of the Yarra Valley Parklands (YVP), many as cyclists in the past; many now impaired.

  • 65+ plus cohort who ask “How can environments for walkers be designed to mitigate mental stress and disease?” Reference to the Peter Carter NELP EES submission which starts to categorize active transport stress level locations on the NELP is compulsory reading

  • "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." WHO, 1948.

  • Critical locations for walkers crossing creeks, rivers, and roads
• Insert 2021, census year, walking rates on the MYT and footpaths in the NELP
• Focus on mapping walking activity zones in the YVP (separated from cycling catchments & commuters)
• Map Existing & Future Possible Active Transport (AT) Crossings of the Yarra River in NELP domain
• Model & Map existing and 2051, census year, model air quality & air composition zones in the YVP
• Map tree canopy cover and “Green” ground in the YVP
• Physiological stress and pollution: map "Green" active transport corridors (Discussed on slide 4/15)

The reference base providing the context for this presentation draws on:
Also refer to 30+ page CTDG report
Typical Eastern Freeway Morning Peak Trial 1: Brainwaves & PM 2.5 (Particulates) versus Time
Thermal Comfort that allows therapeutic walking rates for the active aging population cohort

Discussion points: Using Infrared Surface Thermometers to infer to walkers where a concept called attention restoration theory, which posits that being in a natural setting helps you recover from mental fatigue is potentially available.
Main Yarra Trail (MYT): Eltham – Port Melbourne
Main Yarra Trail (MYT): Eltham – Clifton Hill
NE Link in the Urban Yarra Valley Parklands
Main Yarra Trail (MYT) Features: Eltham – Clifton Hill
Heidelberg Artists Trial

The H-S collision case story
Walking Trails Linking the Yarra Valley Parklands
Part List of Existing Parks in the NEL Domain

• Banksia Park
• Banyule Reserve
• Birrarung Park
• Bulleen Park
• Yarra Bend National Park
• & more.
• *The therapeutic benefits from modelling the outcomes of*:
  • Algorithms for potential time walking & sitting in Nature pre-NELP & post-NELP
  • The changing sound, silence, of Nature
  • The visually beautiful & natural landscape changes
Bushwalker, Flâneur, or a Person on Walkabout-Usage & Activity Rates of the Yarra Valley Parklands

- 5,000 – 10,000 step circuits
- 120 minutes of walking in Nature to optimise health benefit
- "Time you enjoyed walking [sic] is not wasted time.“ > T. S. Eliot
- Thermal Comfort & Urban Heat Island (UHI) phenomena influence walking intensity activity patterns

| Surface temperature can differ from air temperature at the same location |
|---------------------------|---|
| Footpath surface temperature is a function of material, texture & colour |
| Gravel surfaces may record 25C while concrete or asphalt will record 40C in the same urban micro climate location |
In addition consider:-

- Walker friendly environments: Strength of survey feedback from 200+ walkers currently using the possible walking trails in NELP environs, and their post joint repair intervention recoveries
- Therapeutic landscapes, views & points of interest
- Safe separation of walkers from speeding cyclists
- Nudge focused infrastructure & way-marking to sensibly separate foot and cycling traffic
- Speed restriction facilitation and enforcement on walking trails, such as using steps, kissing and/or rambler gates
- Providing retaining walls, fences and sculpture suitable as seating
- Social footpath widths
ABBREVIATIONS & STAKEHOLDERS

- ASCA: Australian Citizen Science Association
- DEA: Doctors for the Environment Australia
- PARKS VICTORIA
- MYT: Main Yarra Trail
- SIG: Special Interest Group
- TCPA: Town & Country Planning Association
- WHO: World Health Organization
- VICTORIA WALKS
- YVP: Yarra Valley Parklands (& SIGs)
- Yarra River Keepers
Thankyou for your attention
Clarification & Questions?
https://oz4lca.com

Supporting items are available at https://oz4lca.com/; the contributions from the TCPA & UoM Citizen Science Communities are acknowledged

A Complex Nudge

A Simple Nudge
“Nature itself is the best physician”, Hippocrates
“Nature is the Art of God”, Dante Alighieri

The Take Home Message: Separate