

Unfinished Business: Improving the WAMS Tracks and Trails Map

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Since its beginning in December 2010, the Walking Access Mapping System (WAMS) has become an authoritative source of information for track planners and track builders. It helps them to identify existing tracks and to plan and build new tracks. The dedicated public-access maps within the WAMS may also be useful resources for well-informed recreational users who seek information on land ownership or information on the legal status of a section of track or of a proposed linear route across land. A reviewer of the WAMS website in the August 2020 edition of *Wilderness* described the WAMS as ‘the complete trip planner’ and ‘unbeatable’ as a ‘comprehensive map of New Zealand tracks and public land’.

Some parts of the WAMS, however, are still in a stage of very gradual evolution, which requires occasional re-examination and rethinks. Many potential recreational users of the WAMS may not be interested in the complicated legal instruments that lie behind each section of track. Many ordinary walkers and cyclists shy away from the cadastral complexities. They merely require one map – sometimes referred to as a one-stop-shop – that

- shows all physically evident walking tracks and shared-use tracks, subject – in urban-fringe areas – to the limitations of the scale of the map; and that
- differentiates between tracks that may be private and those that are freely open to the public, and that achieves this binary division without involving the map user in the underlying legal complexities; and that
- accurately shows the surrounding detail, such as rivers, streams, roads, farms, nearby towns and the shape of the land.

If we view New Zealand walkers and cyclists collectively, this requirement becomes a need for a national topographic map series with the characteristics that I have listed above. The online Tracks and Trails map, if used with a modern topographic base map, has the potential to meet this requirement efficiently and aesthetically. In previous papers, however, I have argued that the Tracks and Trails map is handicapped by its reliance on the very basic 1970s track symbology of LINZ’s NZTopo50. The track symbols of this 1:50,000 series have changed little for over forty years. The New Zealand Walking Access Commission (NZWAC) cooperates with LINZ on many matters but has yet to influence the design of the track symbols at source, those of the printed NZTopo50. Instead, the circumstances force the GIS professionals working on the Tracks and Trails map to overlay the topographic base map with new track symbols, somewhat crudely, as an unavoidable interim solution.

Responses, directly to me, to these arguments have been limited in number and widely different from each other. Some people have agreed that the track symbology of NZTopo50 needs redesigning to carry more information. Others have argued that GPS devices have made topographic maps redundant.

May 2019: Review of the Walking Access Act 2008

A government review of the Walking Access Act 2008 began in May 2019, over three years ago. The review report was presented to the House of Representatives on 25 September 2019.

Many submitters to the review had identified the WAMS as an excellent resource. But submitters had also suggested some WAMS areas of improvement. The report of the review panel noted ‘the need to incorporate all tracks and trails across the country, to

provide a “one stop shop” for access information’.¹ One could argue that the WAMS is already a one-stop shop, but is one with five different floors. Or you could interpret the label one-stop shop more narrowly, assuming a specific context. As I see things, the resource that could most nearly ‘incorporate all tracks and trails across the country’, subject to limitations of map scale and given greater coordination across government departments, is the online Tracks and Trails map.

The review report contained thirty recommendations. Number 12 said that

given the acknowledged success of the Walking Access Mapping System, the Commission, the Department of Conservation, Land Information New Zealand and territorial authorities [should] work together to consolidate and improve the consistency of information on access, including agreeing on data standards for access information.²

Towards the end of the report was an explanation of the next stage: ‘A formal policy process, including consultation, will ... take place, prior to [the] Government’s decision on what changes will be made to the Act and work of the Commission.’

About six months later, in March 2020, Covid-19 reached New Zealand. Much government business slowed or halted. At the time of writing, July 2022, the Ministry for Primary Industries (MPI) ‘formal policy process’ seems to be still in limbo. The latest update about it, available on the MPI website, says:

Next steps

... MPI’s policy team is progressing some of the minor and technical changes proposed in the review with the Primary Industries Regulatory Standards Amendments (PIRSA) Bill.

Responding to the review’s more substantive findings is on hold due to competing Government priorities. This page will be updated when the substantial [*sic*] policy process is initiated.³

With a general election now on the horizon, further delay in the government’s response is likely. But people who care about the future of the NZWAC, and in particular about the futures of NZTopo50 and the Tracks and Trails map, could turn this delay into an advantage by using the time to further discuss and analyse some of the more involved issues.

Recognising NZTopo as the Primary Base Map for the Tracks and Trails Map

Users of the online Tracks and Trails map are required to choose one of four available base maps. (Immediately compromising the one-stop shop idea.) One of these base maps is a digital version of NZTopo50. In previous writing I have described NZTopo50 as ‘the primary base map of the Tracks and Trails map’. There are good reasons for this emphasis on the seminal importance of NZTopo50. To know the shape of the land, and whether for

¹ Ministry for Primary Industries, *Report on the Findings of the Review of the Walking Access Act 2008*, p. 40.

² Ministry for Primary Industries, *Report on the Findings of the Review of the Walking Access Act 2008* (Wellington, NZ: Ministry for Primary Industries, 2019), p. 12.

³ Ministry for Primary Industries, "Next Steps," (Wellington, NZ: Ministry for Primary Industries, 2022). <https://www.mpi.govt.nz/legal/legislation-standards-and-reviews/walkingaccessreview/#next>.

example you are going uphill or on the flat or downhill, you need contours. Ie, you need an accurate topographic basemap.

I hesitated before writing that last sentence. If you are following an obvious well-marked track in relatively safe low-level terrain or in urban-fringe country, you may not need a map that has contours. You may not understand contours. You may not even need a map. But many trampers and mountain-bikers on remote mountainous terrain do need and use the topographic maps. In 2015 the third edition of the authoritative American book *Wilderness Navigation* emphasised the continued importance of traditional map and compass skills, in combination with 1:24,000 or 1:50,000 topographic maps and with dedicated GPS devices or with the GPS function in smart phones.⁴

What is the equivalent advice for trampers in the New Zealand backcountry? The website of Te Araroa Trust offers various trail notes and maps free of charge. The trust has recognised the central importance of NZTopo50 for users of Te Araroa. The webpage makes this very clear, stating that ‘the Land Information New Zealand (LINZ) Topo 1:50,000 topographic map is now the primary basemap for Te Araroa trail maps.’ The website further emphasises the pre-eminence of NZTopo50 by offering Te Araroa walkers this advice: ‘For more information on LINZ Topo basemaps and how to read them, please visit: www.linz.govt.nz’.⁵

Somewhat differently from this, however, the present homepage of the WAMS online Tracks and Trails map does not explicitly recognise the central importance of the topographic base map. On the contrary, the default base map, when I view Tracks and Trails on my desktop PC, seems to be a greatly simplified skeletal tracks map. Called Light Grey Canvas, this online map displays well at a wide range of scales and I’m sure it has its uses but it lacks contours.

In my opinion, this choice of a simplistic map as the default base map is understandable but is also questionable. For some users, especially novice map readers, the skeletal base map may usefully declutter the more demanding NZTopo50. But defaulting to a minimal map risks down-playing the crucial place of NZTopo50 in the WAMS. The NZWAC could be more assertive, publicly and privately, about the importance of NZTopo50 and about its limitations. The commission could encourage LINZ, in the medium and long term, to redesign NZTopo50’s track symbology. With this in mind, the commission could also adopt a long-term aim, to be stated in the commission’s management publications, to persuade parliamentarians to widen LINZ’s mandate by adding the commission to LINZ’s list of core stakeholders, specified in Cabinet.⁶

Since 2008, New Zealand has had two state map-makers. Cooperation between the two has led to the successful development of the WAMS. But the way ahead for the NZWAC, to further develop the Track and Trails map, is unclear because the future style and characteristics of the NZTopo50 maps, or of their successors, is not known. A fundamental mapping issue facing the NZWAC and LINZ is the question of whether NZTopo50, or its successor, remains in the strictly orthodox traditional category of topographic maps or is redesigned to accommodate thematic needs, such as denoting tracks open to the public.

LINZ has argued that redesigning the track symbols of NZTopo is beyond its mandate and beyond its budget. In August 2021 the Petitions Committee reported that LINZ had

⁴ Bob Burns and Mike Burns, "Wilderness Navigation: Finding Your Way Using Map, Compass, Altimeter & GPS," (3rd edn., Seattle, WA: Mountaineers Books, 2015).

⁵ Te Araroa, "These maps and notes ...," (2021). <https://www.teararoa.org.nz/before-you-go/maps-and-notes-download/>.

⁶ Cabinet minute CAB(95) M32/8Ei establishing Land Information New Zealand.

‘said that redesigning the track symbols for the Topo50 map series would require additional funding from the Government’. LINZ had also said that it ‘does not currently have the capacity to redesign the Topo50 map symbology while also maintaining its existing topographic products’.⁷

The commission does not have the resources to produce its own custom-designed topographic base map with national coverage, either printed or online. For the time being, the Tracks and Trails map must make do with the ageing topographic base map.

The existence of two state map-makers makes it difficult for outsiders – and perhaps insiders also – to see the direction of future mapping developments. Some mist would clear from the view ahead if the NZWAC would follow the lead of the Te Araroa Trust by publicly recognising NZTopo50 as being, despite its present serious limitations, the primary base map for the online Tracks and Trails map.

- Burns, Bob, and Mike Burns. "Wilderness Navigation: Finding Your Way Using Map, Compass, Altimeter & Gps." 3rd edn. Seattle, WA: Mountaineers Books, 2015.
- Dean, Jacqui, and Petitions Committee. "Report of the Petitions Committee: Petition of Pete McDonald: Ask Linz and Nzwac to Redesign the Track Symbols Used on Nz Topo50 Maps." Wellington, NZ: NZ House of Representatives, 2021. https://www.parliament.nz/en/pb/sc/reports/document/SCR_115695/petition-of-pete-mcdonald-ask-linz-and-nzwac-to-redesign.
- Ministry for Primary Industries. "Next Steps." Wellington, NZ: Ministry for Primary Industries, 2022. <https://www.mpi.govt.nz/legal/legislation-standards-and-reviews/walkingaccessreview/#next>.
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⁷ Jacqui Dean and Petitions Committee, "Report of the Petitions Committee: Petition of Pete McDonald: Ask LINZ and NZWAC to redesign the track symbols used on NZ Topo50 maps," (Wellington, NZ: NZ House of Representatives, 2021). https://www.parliament.nz/en/pb/sc/reports/document/SCR_115695/petition-of-pete-mcdonald-ask-linz-and-nzwac-to-redesign.