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location *matters*

A *point of reference* for Tasmanian land information



THIS ISSUE

Spatial Innovation Showcase
TASMAP User Survey
Bushfire Planning
Electronic Conveyancing

Information and Land Services
Department of Primary Industries, Parks, Water and Environment



Tasmania
Explore the possibilities



The new edition of Lynton 1:25 000 Series map - available for purchase from Service Tasmania shops, TASMAT resellers and agents, and online at www.tasmap.tas.gov.au

This newsletter is designed, written, edited and produced by the Information and Land Services Division of the Tasmanian Department of Primary Industries, Parks, Water and Environment (DPIPWE).

This newsletter aims to provide professionals and the general public with interesting articles and news about land information in Tasmania.

We encourage you to provide feedback or ideas for future issues and hope you take advantage of this opportunity to keep in touch. Comments can be emailed to geodata.clientservices@dPIPWE.tas.gov.au

An electronic version of this publication can be found at:

www.dPIPWE.tas.gov.au/locationmatters

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Message from Kate Kent...



With

an escalating focus on evidence-based planning and infrastructure development, there are increasing demands from

industry, science and society in general for high quality location-based information as the foundation for making reliable decisions.

To meet these demands, information custodians and location service providers must constantly monitor and respond to changes in current and anticipated user needs.

In this environment, it is more important than ever to hear what stakeholders are saying and to find ways that help them maximise the value derived from location-based or spatial information through the provision of improved data and services.

The recent Spatial Innovation Showcase provided participants with a unique opportunity to see first-hand what is being achieved nationally and internationally through linking administrative information to location. It also provided a forum for users to discuss their needs, concerns and issues with industry specialists and providers.

The Showcase clearly illustrated the growing recognition of the potential for using location-based information and provided context for the future provision of location-based information and services in Tasmania.

The TASMAT user survey likewise provided valuable insight into the current and future needs of map users. We will

use this information to help us ensure our mapping products continue to be relevant into the future.

Learning, changing and preparing for the future are common themes in this edition, as we highlight how consultation, communication and engagement with the community are helping government to improve services and deliver cost savings and greater efficiencies.

On behalf of all the staff in the Information and Land Services Division, I wish you all a safe and happy festive season.

*Kate Kent
General Manager
Information and Land Services Division*

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Cover image

The 2006 Meehan Range fire threatened several community areas. Community Protection Plans aim to enhance community resilience to bushfires (see article on page 6).
Photo by Ian Stewart.



Have your say...

locationmatters

aims to keep clients and members of the community informed about new developments and progress with existing projects, as well as introduce you to staff and the work they do.

Please take a few minutes to tell us what you think by completing the short questionnaire at www.dPIPWE.tas.gov.au/locationmatters.

Your feedback will help to ensure that we can continue to provide you with timely, relevant information in the most cost-effective format.

Local forum

showcases spatial initiatives that save money and lives

The critical role of spatial information in evidence-based planning and decision-making was the key message for delegates at the inaugural Spatial Innovation Showcase, held at Wrest Point Convention Centre in Hobart on 27 October 2011.

The event was a great success, attended by around 160 delegates, speakers and exhibitors from all levels of government as well as local and national business enterprises, professional organisations and academia.

Chair of the Tasmanian Spatial Information Council (TASSIC), Gary Nairn, said this was an extremely significant event for Tasmania,

with implications for future economic, social and environmental projects in the State.

"The importance of linking administrative data to location is now recognised as a critical component of core business for government and the private sector worldwide," Gary said.

"For sustainable planning and development in the future, it is essential that decision-makers understand the importance of mapping the location and capacity of existing services, facilities and natural assets, as well as the projected needs for these, so we can make the best decisions.

"It was particularly rewarding to see so

many delegates from policy and planning organisations at the Showcase."

The diverse program included updates on national and international trends, presentations on a range of thought-provoking initiatives, a lively expert panel forum and impressive presentations by students from the University of Tasmania.

The event was an initiative of TASSIC www.tassiac.org.au in collaboration with the Department of Primary Industries, Parks, Water and Environment and the Tasmanian Region of the Surveying and Spatial Sciences Institute.

*Caroline Palfreyman
TASSIC Executive Officer*

Throughout the day at the Spatial Innovation Showcase. Photos by Graeme Harrington.



Users help map future strategy

TASMAP user survey delivers the goods

TASMAP is working on new strategies to improve the relevance and quality of its mapping products based on feedback obtained from a recent survey of over 1,400 map users.

The online survey was widely promoted and conducted over a 4-week period in early 2011. As well as recreational users, participants included map users working in emergency service organisations, State and local government, industry and environmental groups, many of whom provided valuable feedback over and above the set questions.

Key objectives of the survey were to:

- obtain a thorough understanding of TASMAP client expectations, requirements and usage in relation to the content and distribution of TASMAP products
- provide a sound basis for future decisions.

Over the past few years, the pace of change in mapping has been exponential. Maps – and spatial information in general – have become critical tools for location-based decision-making, alongside more traditional uses in navigation, recreation, emergency response and terrain portrayal.

Significant changes in modern map use prompted TASMAP to conduct a broad user survey to better understand the needs of current users and help guide the future of topographic mapping in Tasmania.

Responding to the needs of map users has been an important part of TASMAP's charter for over sixty years. In the early 1940s, maps were designed to satisfy military and defence requirements. With the hydroelectric industrialisation and economic expansion of the post-war period, emphasis was on mineral exploration and hydro resources, so TASMAP created base topographic maps for the developing State. By the 1970s, tourism had become an important part of Tasmania's economy. TASMAP responded by producing dedicated recreational and national park maps to cater for increasing numbers of visitors. Through the 1980s and 1990s, TASMAP's 1:25 000 map series provided a sound basis for natural resource management as well as the foundation for Tasmania's now comprehensive state-wide spatial datasets.

What the survey showed

One aim of the survey was to gauge the take-up of technology such as smartphones, personal GPS devices and GIS among the TASMAP user base, and assess the level of demand for digital mapping products.

Survey results revealed that over two-thirds of respondents own or use in-car navigation systems, hand-held GPS, smartphones or GIS software. Almost half of all respondents indicated they would like to be able to purchase digital maps in formats such as GeoPDF – over half of those indicated that they would also purchase a paper copy of the same map. However, the majority of respondents indicated that they would only be prepared to pay half the cost of traditional map products for any digital products.

Results showed that more than 30% of respondents use TASMAP products for business purposes. These included route planning, navigation, emergency response, infrastructure planning, site selection and farm planning.

There was a significant crossover between map use for business and recreational purposes, with 91% of all respondents using TASMAP products for recreational pursuits such as bushwalking, tourism, fishing, cycling, hunting and four wheel driving.

Respondents were also asked to rate the importance of a number of key attributes of topographic maps (scale, detail, readability, currency and durability) in order of priority.

The overwhelming majority of survey participants rated readability and detail as more important than currency and durability. Interestingly however, in response to a question later in the survey, a significant proportion of respondents indicated that they were less likely or unlikely to purchase a map produced more than five years ago.

With regard to map durability, a significant number of users of national park and

Wellington Park Recreation Map on an iPad.

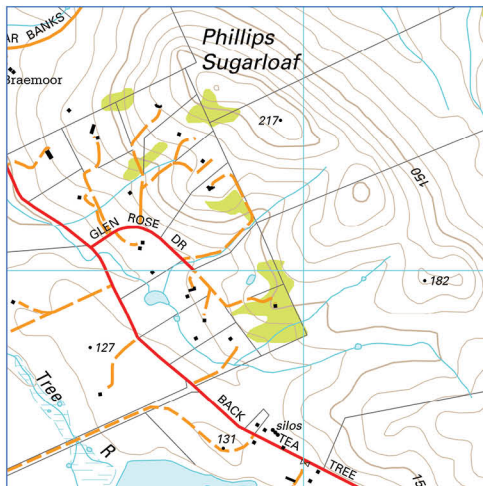
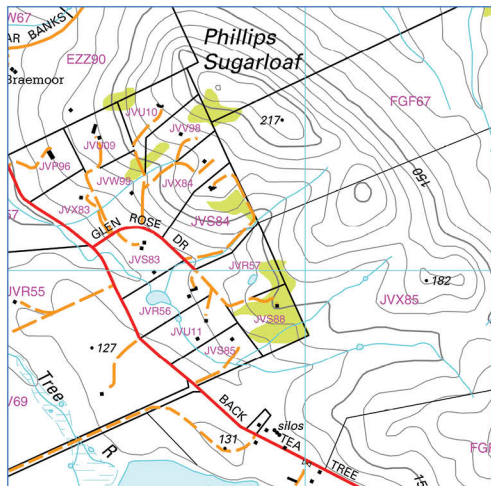


KEY OUTCOMES

Based on survey results, TASMMap has developed a number of recommendations for change that are designed to improve product quality, usability and delivery.

Key recommendations include:

- Produce digital versions of TASMMap products for delivery through www.tasmap.tas.gov.au, beginning with the 1:25 000 Topographic/Cadastral series. Initially, digital products would be available as GeoTiff, KMZ (Google Earth format) and GeoPDF where available.
- Implement product thumbnails on www.tasmap.gov.au, enabling clients to preview map content prior to purchasing. Along with thumbnails, show related products, for instance, adjoining maps or alternative maps covering the same area.
- Adopt changes to the 1:25 000 Topographic/Cadastral map series to improve readability and streamline production. Include change of contour colour from grey to brown, change cadastral parcel boundaries from black to grey and remove Land Parcel Identifiers (LPIs). Removal of LPIs to include consultation with affected stakeholders to promote better alternatives to cadastral indexing.
- Adopt a simplified portrayal of vegetation cover across all series mapping products, including dense forest or scrub, medium forest or scrub, plantation forest, orchard, windbreak, cut-line and submerged trees.
- Investigate the adoption of a 1:50 000 topographic map series to replace or partially replace existing series mapping products. This recommendation has implications for a broad range of map users, including emergency services, requiring significant stakeholder consultation.



recreational maps stated that they would be happy to pay between \$5 and \$10 more for maps printed on durable, waterproof, synthetic 'paper'.

The survey included a series of questions related to improvements and changes to specifications for existing series mapping. In particular, respondents were asked to provide feedback on possible changes to the 1:25 000 map series, with options relating to contour, cadastral and Land Parcel Identifiers (LPI). In the image to the left (above), LPIs are shown in magenta (eg. JVX85).

Options 1 (left) and 3 (right) shown above were the most popular choices, however, the overwhelming majority of users indicated they no longer require LPIs to be displayed on maps because other methods of cadastral indexing provide this capability (eg. data available through www.thelist.tas.gov.au).

The survey asked respondents to provide feedback about new vegetation specifications across all series mapping products (shown right). Nearly 80% of respondents were happy with the proposed changes, with only 15% stating that they had some reservations.

Finally, survey respondents were asked to provide feedback about possible changes in the mix of series mapping scales produced by TASMMap.

TASMMap currently produces 1:25 000 and 1:100 000 maps over the entire State. Respondents were asked to comment on options including:

- no changes to existing map series
- replacing the 1:100 000 series with a 1:50 000 series
- a mix of options for a hybrid approach, depending on the area of the State.

A hybrid approach – including 1:50 000 state-wide coverage and 1:25 000 limited area coverage – was identified by a high proportion of respondents as a desirable or satisfactory solution. A 1:50 000 example is shown at the bottom of this page.

David Austin
Program Leader (Mapping)

Forest or scrub, dense	
Forest or scrub, medium.	
Forest, plantation.	
Orchard.	
Windbreak.	
Cut line.	
Submerged Trees.	

Example of a possible 1:50 000 topographic map.



Bushfire planning

protecting Tasmanian communities

Lessons learned after the tragic 2009 Black Saturday bushfires are being used in an important Tasmanian Government initiative designed to enhance our local communities' resilience to bushfire and protect vulnerable groups of people and key community assets when bushfires are burning out of control.

The Community Protection Planning Project was commenced in 2010 by the Tasmania Fire Service (TFS) in collaboration with the Emergency Services GIS Unit (ES-GIS) in DPIPWE.

The project team is developing two types of community protection plans:

- Local plans – to be used primarily by community members
- Response plans – to be used by fire brigades and incident management teams.

A substantial proportion of Tasmania is classified as 'bushfire prone'.

Each local plan includes a map of the specific community area. The first task for ES-GIS was to develop base maps to support each plan. Existing maps were not suitable for this project, so ES-GIS created customised base maps, applying sound cartographic principles and the most up-to-date spatial data.

With these base maps and spreadsheets identifying the location of critical infrastructure, community assets and potential hazards, TFS has been able to undertake preliminary consultation with key stakeholders, including other emergency service organisations, critical infrastructure owners and local government. Site assessments are conducted as required and new spatial data is captured where information is not already available. Outputs from this work are then forwarded on to ES-GIS, where base maps are updated and 'draft' local and response plan maps are created.

Local plan maps include the location of 'Nearby Safer Places', main access and egress roads, and references to other sources of information during bushfires. The development of these plans involves a public consultation process, including advertisement on the TFS website for comment, and community focus group sessions if required.

Response plan maps are designed to inform operational decision-making when responding to bushfires. These maps include the location of potentially vulnerable groups, critical infrastructure, community assets and identified hazards. Response plans are subject to a consultation process that involves local fire brigades, and emergency management and community recovery committees.

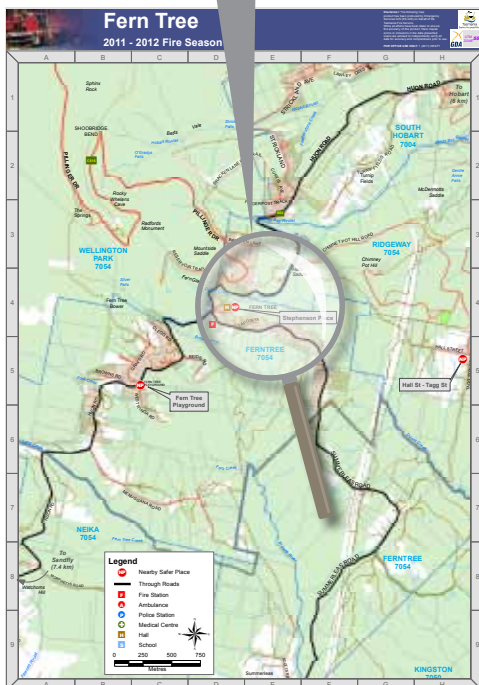
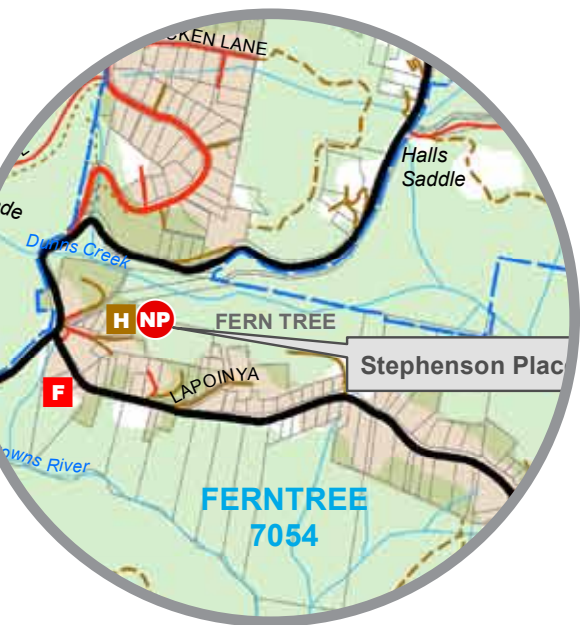
After completion of the consultation process, the plans (incorporating maps) are being updated and released on the TFS website.

There have been significant challenges associated with the mapping work. ES-GIS Manager, Aaron Cashion, said that the most challenging aspect has been conveying the message that "while it would be great to have a multitude of other information conveyed on the map, this is simply not possible due to map scale and legibility".

Collaboration between the two State Government agencies involved in the project has been excellent and the customised base maps have received widespread endorsement from stakeholders. The project is scheduled for completion in 2013.

For further information on the Community Protection Planning Project, visit the TFS website www.fire.tas.gov.au.

Aaron Cashion
Manager - Emergency Services GIS



Left: Community Protection Plan map of Fern Tree, with enlargement above, showing the Nearby Safer Place (NP).
Below: 2006 Hobart bushfires. Photo by Ian Stewart.



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Electronic Conveyancing

moving to the future

The Land Titles

Office is making good progress with changes to processes and systems in readiness for the electronic lodgement of land dealings – or E-Conveyancing.

Over the past few years, Tasmania has actively participated in plans to develop a National Electronic Conveyancing System (NECS) and is now well-placed to reap the benefits when the national system is introduced.

In 2009, the State secured Commonwealth Government funding for system enhancements to prepare for the implementation and management of E-Conveyancing, and to support the progression and introduction of NECS. This work was undertaken as a 2-year Land Titles Office (LTO) *NECS Readiness Project*, which included a number of developments to automate LTO processing and update the Tasmanian Online Land Dealings (TOLD) system.

As Australia's NECS will be implemented in stages, it was also necessary to consider processes and systems that allow for the continuation of paper lodgements in the new electronic environment.

LTO is currently undertaking legislative reviews of the *Land Titles Act 1980* and the *Strata Titles Act 1998*, as well as updating LTO procedures.

LTO has successfully implemented a number of changes to office processing and land information systems. These have provided many benefits for the LTO, its clients and stakeholders, including:

- the ability for clients to search and follow the progress of plans
- automation of LTO correspondence, allowing clients to access correspondence by email or through TOLD
- development of web services to enable title searching
- new scanning hardware, software and procedures to improve processing and availability for searches
- better availability of statutory forms and information to stakeholders through PDF delivery of scanned dealings and plans available through LIST
- automated and streamlined process for the production of titles
- enhanced functionality of the online TOLD menu
- electronic requisitions for information relating to electronically lodged dealings
- implementation of an invoiced fee payment system, with a range of payment options.

Although the NECS Readiness Project ended in June 2011, LTO will continue to implement and enhance new processes and systems in the move towards an E-Conveyancing environment.

Michael Varney
Manager, Land Titles Office



Bushfire Risk Assessment Model

Tasmania's Parks and Wildlife Service (PWS) is responsible for managing nearly 2.5 million hectares of land, most of which is covered by flammable native vegetation. Like all land owners, PWS has a legal obligation to reduce the risk of fire.

In managing such a large area with limited resources, a tool was needed to help determine priorities. A Bushfire Risk Assessment Model (BRAM) was developed. The model identifies the spatial location of actual (as opposed to perceived) risk, as well as components that drive the various risk factors.

By weighting the key components of likelihood and consequence, the model helps to identify areas most at risk from catastrophic bushfire.

For more information on BRAM, please contact David.Taylor@dpipwe.tas.gov.au.

TASMAP forward program

The forward program for map revision in the TASMAP 1:25 000 and 1:100 000 topographic series is now available on the TASMAP website. The program shows maps scheduled for revision over the next 12 months, as well as estimated completion dates. More information can be found at www.tasmap.tas.gov.au.

Farewell Martin!

Martin Gay, Spatial Information Specialist with ILS, retired on 30 September 2011, after working with the Department for 39 years.

During his career, Martin was involved in significant projects and process improvements, including leading the team responsible for converting hardcopy topographic maps into digital data and the automation of TASMAP series map production.

We wish Martin all the best in retirement.

TASMAP features in *The Hunter*

TASMAP topographic maps and data figure prominently in the feature film, *The Hunter*, that opened at the State Cinema in Hobart and Village Cinemas around Tasmania on 6 October this year.

The Hunter is a powerful psychological thriller based on the book by Julia Leigh.

Willem Defoe plays the part of Martin, a mercenary sent from Europe by a mysterious biotechnology company to hunt for the last Tasmanian tiger. Martin's journey takes him deep into the Tasmanian wilderness, assisted by TASMAP's 1:25 000 topographic maps for planning and navigation.

More information on *The Hunter* can be found at www.thehuntermovie.com.



Lucy (Frances O'Connor) & Martin (Willem Dafoe).



Martin (Willem Dafoe). Photos by Matt Nettheim

Above: detail of the new Douglas-Apsley National Park Map.

New TASMAP products

Recently released map products are now available for purchase online at www.tasmap.tas.gov.au or from Service Tasmania shops, TASMAP resellers and agents.

1:25 000 Topographic/Cadastral Maps

- Waterloo
- Anne
- Lymington
- Leprena
- Glovers
- Rowallan
- Cygnet
- Ansons Bay
- Derby
- Oceana



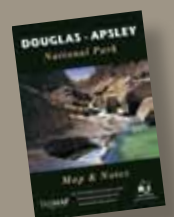
1:100 000 Topographic Maps

- Meander
- D'Entrecasteaux
- Flinders



National Park and Day Walk Maps

- Douglas-Apsley NP
- Cradle Day Walk



More details about recent releases can be found at www.tasmap.tas.gov.au

Now available online at
www.tasmap.tas.gov.au

Direct enquiries to

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