

The Role of ePlanning in the NSW Planning Reforms: Implications, Benefits and Opportunities for the Surveying Community

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ABSTRACT

A key objective of planning reform in NSW is to establish ePlanning services and tools that provide access to a digitised planning system, anytime anywhere. The introduction of the Department of Planning and Infrastructure's ePlanning program will improve access to land, property and planning information, provide a greater level of transparency, and offer online tools for transacting with the planning system. This paper sets out the rationale for the Department's ePlanning program, outlines the concept of ePlanning and how the use of electronic processes such as online lodgement and processing of development applications, the provision of web-based information (e.g. maps, regulations, state and local policies) will assist in the delivery of planning and development services. The challenges, impacts and benefits of ePlanning, and the critical role surveyors can have in the new planning system, are discussed. The implications of ePlanning for surveyors, in NSW in particular, are discussed with four key benefits identified: (1) Improved positional accuracy of the state-wide digital cadastre, (2) improved GIS positioning of land, property and planning information, (3) the creation of more spatial planning information that has positional accuracy, and (4) creating more planning information as 3D spatial data to facilitate realistic modelling of our natural and built environment. Improving the positional accuracy of the state-wide digital cadastre maintained by Land and Property Information (LPI) is of fundamental importance. To this end, LPI has been implementing a partnership program with local governments in NSW to improve the positional accuracy of what will be a first for NSW, i.e. the delivery of the state-wide online cadastre. This is a large undertaking, however it is anticipated that the introduction of ePlanning will draw focus back to the need for a state-wide cadastre that is accurate, reliable and accessible. This is crucial for the LPI program as it adapts to a greater reliance on online property information. The success of ePlanning in NSW will be accelerated when the full implementation and uptake of ePlanning services and tools takes place alongside the passing of the new planning legislation, which will give legal certainty to digital planning and property data. The role of surveyors in building and managing a reliable and accessible online digital cadastre will be a key building block to ensure this success.

KEYWORDS: *Planning reform, NSW, ePlanning.*

1 INTRODUCTION

A primary objective of surveying is to ensure the highest accuracy and reliability in the recording of property boundaries in order to build a digital cadastre that meets the expectations of residents, businesses and government agencies for land management. The role of surveyors in contributing to the development, establishment and maintenance of a digitised

cadastre for NSW planning will become increasingly essential as the delivery of planning and property information online becomes the principal means by which surveyors, planning professionals, businesses and residents interact with the NSW planning system. This paper outlines the concept of ePlanning and how a greater uptake of information and communication technology (ICT) in the management of planning and property data will improve business processes in state and local government and the private sector.

2 DEPARTMENT OF PLANNING & INFRASTRUCTURE EPLANNING PROGRAM

ePlanning can be thought of as the use of electronic services in the delivery of planning information and services online, anytime and anywhere, transitioning away from traditional paper-based and manual processes which constrain the current planning system. To date, there have been disjointed approaches to the delivery of online planning services through Commonwealth funded initiatives, i.e. the Regulation Reduction Incentive Fund (RRIF) and the Housing Affordability Fund (HAF). These approaches have created fragmented success at the local and state government level due to the limited co-production of delivering ePlanning services with the citizens' input. Government and stakeholders alike recognise the need for a holistic online planning system.

The Department of Planning and Infrastructure is implementing an ePlanning program to deliver citizen-centric planning services, in line with the emphasis on a coordinated uptake of technology in a new planning system for NSW (NSW Government, 2013). The program has been created as a direct result of the findings from the NSW planning system review. Stakeholders overwhelmingly confirmed the need for the state government to put the planning system online – and to provide a clear direction for online planning services for NSW.

The Program will look to deliver in the following areas:

- Standards and specifications: In a first for Australia, the ePlanning program will facilitate the creation of ePlanning data standards and technical specifications for ICT system compatibility. This approach will make it clear to planning professionals and technical financial investors in the NSW planning system what the stakeholders of NSW expect (i.e. transparency, accountability and accessibility).
- Planning portal: A centralised portal accessible in a web and mobile format to view planning information online, lodge, track and complete transactions, and engage with the planning system through comments/feedback and experiences on planning matters.
- Visualisation tools: 3D tools of houses and commercial/industrial buildings, along with 2D interactive maps of property and planning data, will bring new visual representations of planning controls to demonstrate to stakeholders what is and what is not possible based on a parcel of land to generate an understanding and an appreciation of the planning controls in order to deliver better planning outcomes.
- Transactional based services: The ability to search and discover planning information in order to lodge and track development applications online through a spatial viewer, application lodgement tool and tracking tool. This end-to-end service will make transacting with the planning system attractive and accessible to citizens and businesses alike.

ePlanning creates a number of critical benefits due to greater efficiencies in moving from a largely manual system to digital service delivery. The high-level benefits to the stakeholders of the NSW planning system include:

- Planning applicants (developers, planning/property professionals and community): Reduced time, cost and delays in investigating, preparing, submitting, tracking and having applications approved, and greater certainty of approval due to a better understanding of planning requirements.
- Communities: Reduced time to remain informed, and increased ability to be aware of, comment on and object to proposals.
- Councils: Reduced processing costs due to higher quality applications, improved productivity due to fewer general information requests and meetings, and reduced scanning costs longer term.
- Private certifiers: Greater understanding by applicants of requirements, leading to reduced complexity and improved efficiency.
- Agencies: Improved productivity due to single reference point for information, and greater certainty for decisions due to understanding of planning impacts.
- Department of Planning and Infrastructure: Improved productivity in maintaining a single database of planning information, and greater certainty for planning decisions and policy.

The delivery of ePlanning services will address (Figure 1):

- Transparency and accountability: Stakeholders demand a transparent and accountable planning system where services are made available online. Citizens are frustrated with limited access to planning information at the conceptual and assessment stage. The NSW Government is best placed to provide direction and assistance in this regard through the co-production of services and development of standards and specifications for existing systems and for new emerging systems.
- Time and cost savings: The ePlanning program takes direction from the NSW Government ICT strategy and the NSW open data policy and is focused on ensuring services become digital by default, significantly reducing costs and shortening waiting times, reducing red tape and transforming the way government engages with and empowers the community.
- Online usage: With 91.9% of Australians now having access to the internet and 71% on mobile phones (Nielson, 2013), there is a growing expectation for public services to be made available online. Citizens want to read and share information and conduct business online. The ePlanning program is one vehicle to deliver these expectations and contribute to the services of the modern public sector.
- Value in the public sector – International best practice: There is a proven emerging trend of international best practice examples for the delivery of public sector services where the citizen is placed at the heart of the service, e.g. the UK government's award-winning Government Digital Service (GDS). The GDS approach is to take existing content and work with content providers to think about the way the information is presented and consumed by the citizen. To date, 1,700 unnecessary websites have been deleted with information now accessed from one portal (<https://gds.blog.gov.uk>). NSW is able to learn from this approach and leverage their success, and has established a working relationship with GDS.

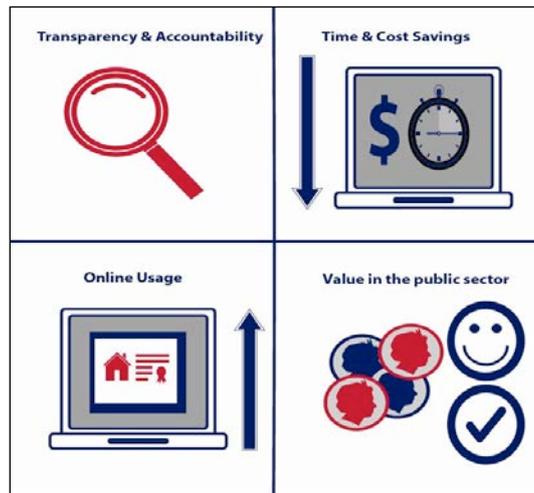


Figure 1: ePlanning benefits include increased transparency, time and cost savings for the community and planning professionals, meeting community expectations for greater online access to information and services, and streamlined interaction with (state) government.

3 EPLANNING SERVICES AND TOOLS

Improving the State's planning system is one of the NSW Government's top priorities. As part of this process, the NSW Government has commenced a 2-year ePlanning program as a way to enable many benefits identified across the planning reform. Key elements of the program are described below.

3.1 Planning Portal

The NSW planning portal will provide 24/7 access to NSW planning material in a central location. The portal will allow residents, businesses and state and local government agencies to access, transact and engage with each other and planning information via the various ePlanning services and tools. The portal will bring disparate systems and information at the local and state government level together for the first time and provide access to the other planning components, as discussed in this section, through a website. Therefore, the planning portal will encourage greater visibility, understanding and utility of planning information.

The portal will provide access to the following services:

- Spatial viewer: A planning viewer service that allows customers to visually identify property-based development standards and strategic plans in an interactive map viewer.
- Online lodgement: An application lodgement service that allows customers to lodge electronic applications where planning controls are embedded in the lodgement service.
- Online tracking: An application tracking service that enables customers to track the real-time status and receive SMS or email alerts related to their applications.
- Register of Consents: A register providing definitive data upon which industry and the community can rely for development decisions.
- Interactive house: A visual tool to assist with planning home renovations within the planning guidelines.
- Stakeholder consultation: Discussion threads and an outreach service for customers and practitioners. Users can access forums and planning news, with engagement via social media.
- Customer support service: Access to support services helping to interact with the portal.

The development of an online portal will enable residents, businesses, councils and government agencies to find planning information in order to assist with planning decisions. As all planning materials (e.g. plans, maps, policies, development approvals and datasets) are subsequently developed as digital assets, they will be stored and become searchable. Refinement of the portal will be based on user's feedback regarding functionality improvements. As shown in Figure 2, the planning portal allows users to access different ePlanning services and tools before a development gets approval.

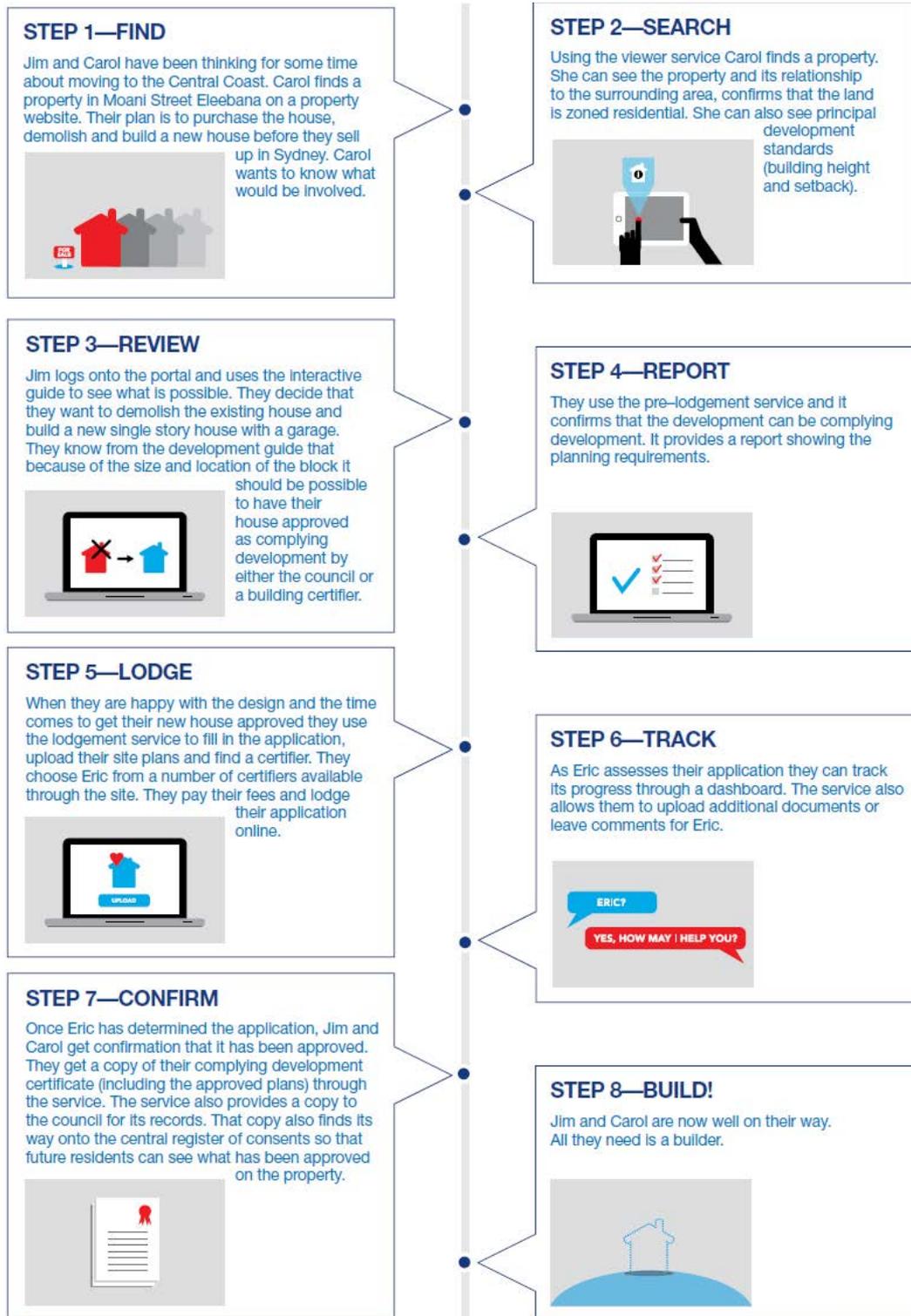


Figure 2: Flow diagram demonstrating the process of how ePlanning services and tools could be used.

3.2 Spatial Viewer

The spatial viewer is a 2D interactive mapping tool that allows surveyors along with members of the public and planning professionals to view information about zoning, height of buildings, floor space ratios and other planning controls in force across the State. The viewer will build on the work of LPI's NSW Globe (LPI, 2014) and bring a planning focus to online mapping by adding information sourced from NSW local environmental plans and other environmental planning instruments.

As illustrated in Figure 3, the spatial viewer allows various plans, planning information and controls to be turned on and off over a searchable area of interest. The coloured transparent sections in this prototype show land use zoning (red: medium density residential, yellow: infrastructure, green: public recreation etc.).

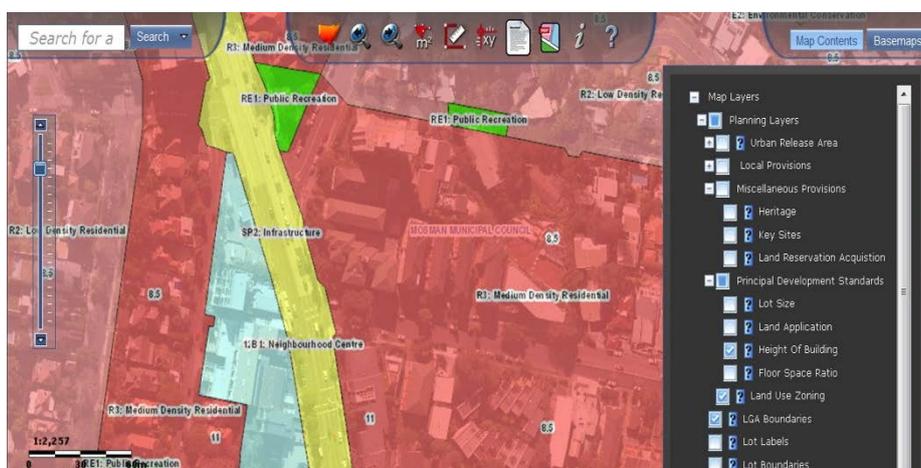


Figure 3: Example view from a proof-of-concept spatial viewer showing land use zoning, building heights and Local Government Area (LGA) boundaries.

The development of a spatial viewer will enable digital strategic, regional, sub-regional and local plans to be viewed seamlessly along with government base layers such as streets, cadastre, topography and aerial imagery. In addition, the integration with other functions, such as community consultation tools, will allow users to easily connect comments with specific information-layer combinations. The spatial viewer will provide residents, businesses and government agencies with a tool that can help make accurate planning decisions and improve people's understanding and confidence in the planning system.

3.3 Register of Consents

The Register of Consents will allow people to check and confirm if all relevant planning consents, construction and occupational certificates and building approvals applying to a particular parcel of land are present and have been followed.

The first steps in developing the Register of Consents are to fully understand and scope out:

- The extent of planning approval information available and staging of its capture and inclusion.
- Solutions to technical and legal issues associated with capturing this information electronically and then making it publically available through the Register of Consents.
- The mechanisms and processes for validating the information through a suitable quality management system.

The Register of Consents will be developed in stages to test and confirm that its operation and function is aligned with user requirements and expectations. Because the operation of the register relies on capturing electronic data, only those councils with suitable electronic data of an assured quality standard will be able to participate in the pilot project.

Once complete, the Register of Consents will benefit residents, businesses and government agencies by providing reliable data that could be used when making investment decisions based on previous approvals and to inform future policy.

3.4 Application Lodgement

Transitioning from a paper-based to an online application lodgement, assessment and tracking system is expected to provide the greatest reduction in processing times and access costs for participating councils, businesses and government agencies. The application lodgement and application tracking tools allow the user to upload all information relevant to a planning application. This allows councils to absorb information directly into an electronic work flow management system.

The data captured through the application lodgement process can then feed through to other planning tools. Consequently, the application lodgement process can greatly enhance the content and interactivity of the entire ePlanning system, such as visualising proposed development applications as a layer in the spatial viewer. Furthermore, the data captured creates an evidence base that allows performance monitoring and reporting to ensure that future planning policy and direction is informed.

The expansion of the existing state government online lodgement service, the Electronic Housing Code (EHC) to include more councils and the Commercial and Industrial Code, as well as the application lodgement tool will see the majority of planning applications being lodged online. This will assist residents and businesses in obtaining faster approvals and provide greater investment certainty.

4 IMPLICATIONS, CHALLENGES AND BENEFITS OF EPLANNING SERVICES FOR SURVEYORS

Currently the state-wide cadastre is described in the broader context of land and spatial information. This information is increasingly significant to making formal planning decisions. Improving the positional accuracy of the state-wide digital cadastre is of fundamental importance. ePlanning services and tools will be utilised as a way to refocus on the importance of the accuracy, reliability and accessibility of land, property and planning information. The successful implementation of ePlanning in NSW will provide legal certainty and electronic certification of planning spatial datasets, so that there is less reliance on paper maps. This means that all planning spatial datasets will be made electronically and publicly available through the planning portal. Furthermore, ePlanning services will facilitate the access to all government spatial datasets, such as heritage, environmental and planning data. Hence, the role of surveyors in the delivery of ePlanning will be critical in ensuring that digital data with legal recognition and ongoing integrity meets high quality standards for accuracy, currency and maintenance.

ePlanning services will address the textual component of a cadastral system, which involves identifying real property and land parcels and concentrating on those under ownership. Additionally, ePlanning services are able to acknowledge spatial components, such as cadastral maps showing land parcels graphically and corresponding to the registered title, to help determine land and subdivision locations and boundaries. Consequently, ePlanning responds to the demand for interaction of spatial data from the public and private sectors as well as businesses and residents. A summary of the challenges and benefits associated with the ePlanning services outlined in this paper is presented in Table 1.

Table 1: Summary of the challenges and benefits associated with each ePlanning service.

ePlanning Service	Challenge	Benefit
Spatial Viewer	As more data becomes available, there will be a challenge of accurately locating and marking property boundaries as well as improving and maintaining the state-wide digital cadastre for the purpose of allowing land, property and planning information to be made available in a geographical spatial context.	Improved positional accuracy of the state-wide digital cadastre.
	Cadastral surveying is concerned with defining the location and position of certain objects and land boundaries for the purposes of identifying ownership and/or the value of land parcels.	Improved positional accuracy of land information, property information and planning information defined and derived in a geographical spatial context.
Register of Consents	Development of common data standards and the copyright restrictions around the release of this information.	Planning approvals and consents that apply to an individual parcel of land can be accessed from a central online location.
Application Lodgement	Development of common data standards, storage, and testing mechanisms for DA tracking and online lodgement that will be applicable to all councils.	Enhanced data quality and consistency to enable better performance monitoring and reporting.
Planning Portal	Establishment and development of a pilot website accessible to the community.	More planning system-related information being created in a geographical spatial context with positional accuracy commensurate with the purpose.

5 CONCLUDING REMARKS

The importance of surveying and the surveyor to a planning, property, building and construction sector worth billions of dollars annually in NSW cannot be underestimated. ePlanning in NSW will be tasked with the role of supporting planning, property and industry professionals, including surveyors, in driving the push towards improvements in the collection, management, publication and access to digital planning and property data.

For surveyors, this will mean a renewed focus on the establishment, management and maintenance of a state-wide digital cadastre that is reliable and accurate. The Department of Planning and Infrastructure and LPI will continue to work towards seeing how technology can expand our horizons, open new areas in the surveying community and provide opportunities for collaboration across government and the private sector.

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