



GIS and the Digital District Plan

The Changing face of District Planning at NPDC

An aerial photograph of a coastal town, likely New Plymouth, with a large mountain in the background. The town is densely packed with buildings and is situated along a coastline. The mountain in the background is prominent and has a snow-capped peak. The sky is clear and blue.

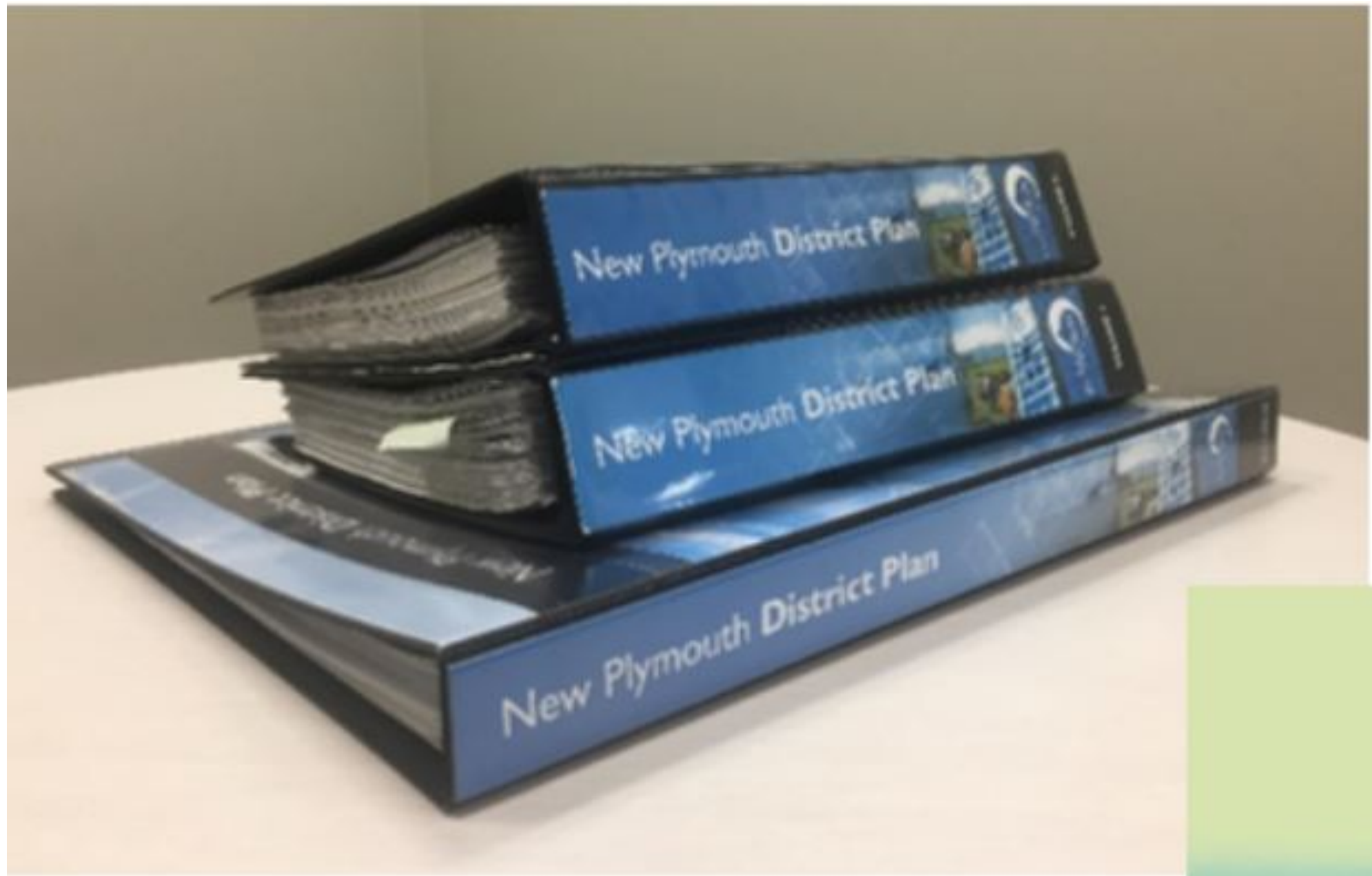
Introduction

- New Plymouth is an area with a high growth rate (+1000 per year)
- Importance of the District Plan
 - Determines how the district will grow
 - Manages sites of historical and environmental significance
- Maps and spatial data have always played a large role in District Planning
- Keeping all spatial data in the District Plan up to date is challenging
- Story of our journey to a fully digital District Plan



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The Old District Plan

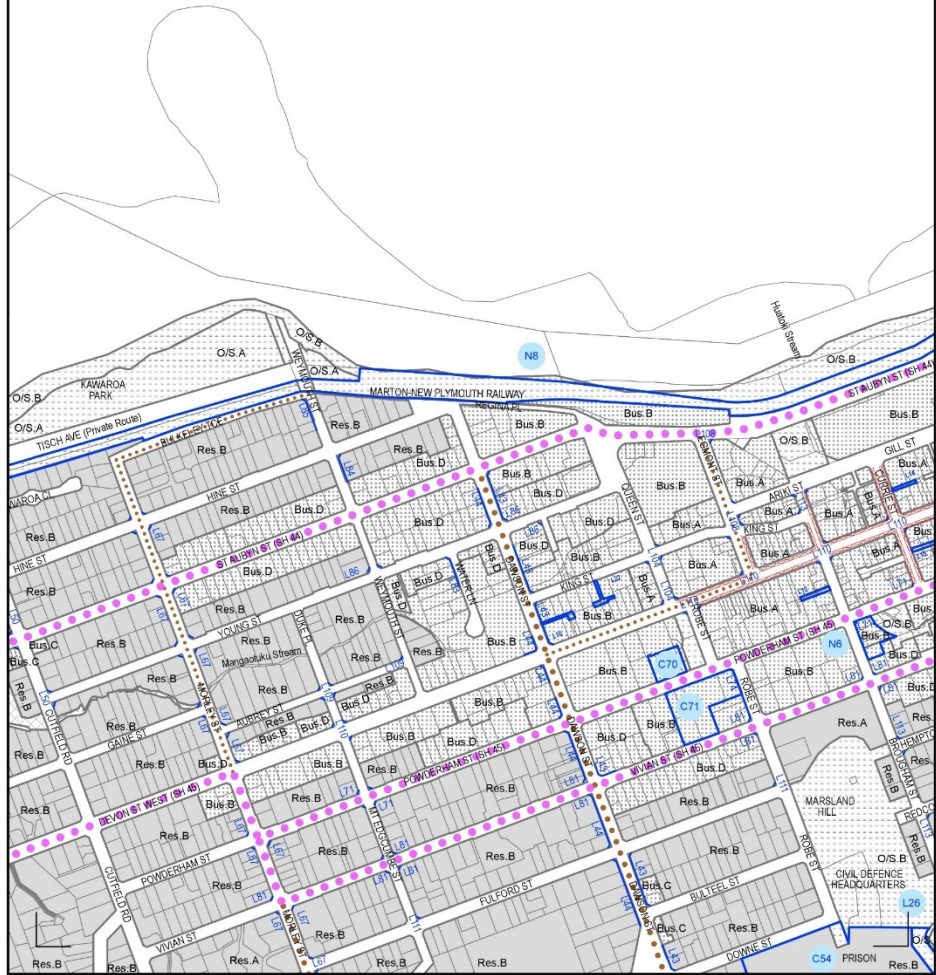


The Struggle with Printed Map Sheets

The background of the slide is a complex map showing a street grid, building footprints, and various colored overlays. There are several overlapping grid patterns in different colors (blue, red, yellow, green) and dashed lines in pink and blue. A yellow circle is visible on one of the grid lines. The map is partially obscured by a semi-transparent white box containing text.

- So many overlays to display simultaneously
- Fixed zoom scale – 1:5000 (urban), 1:15000 (rural)
- Data gets lost in the overlapping layers
- Ambiguity about what intersects what
- Updating base data impossible to keep up to date
- Constantly needing to re-export and supersede PDF sheets
- Someone could be making decisions from an old revision!!

TO BE READ IN CONJUNCTION WITH C 24 b



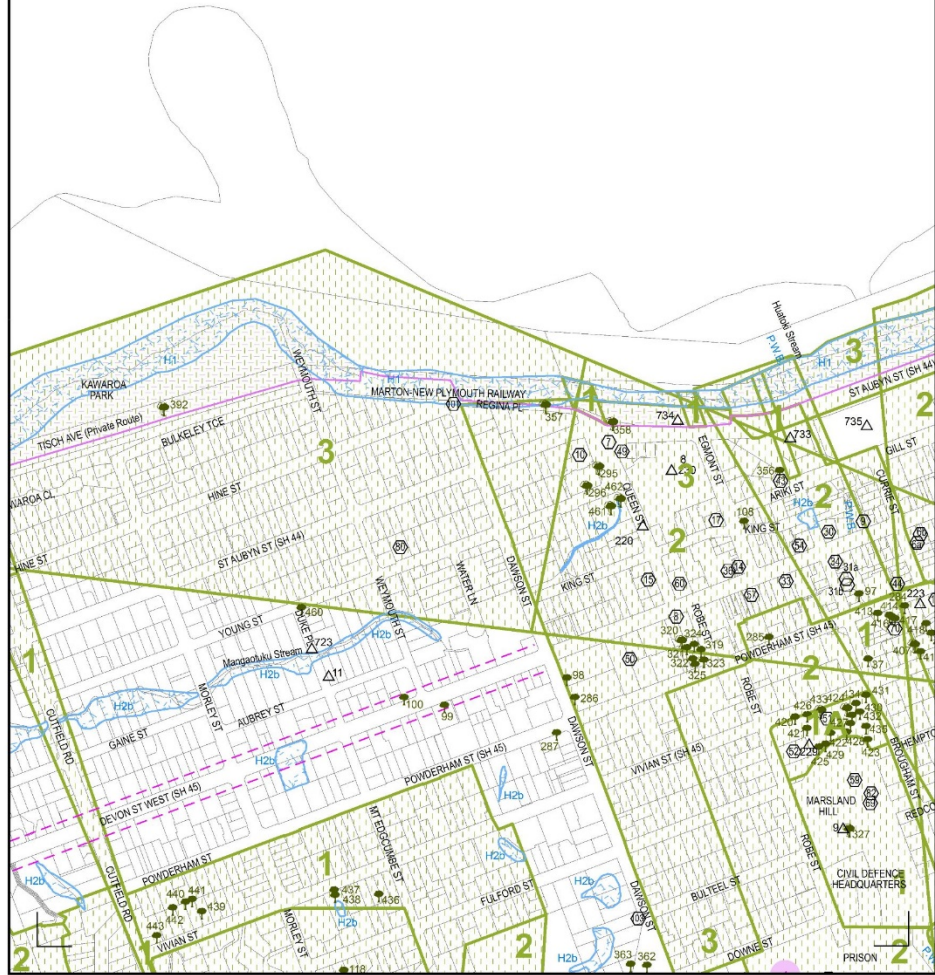
PLANNING MAP
C 24 a
NEW PLYMOUTH

NEW PLYMOUTH DISTRICT COUNCIL
newplymouthnz.com
NEW PLYMOUTH DISTRICT PLAN

0 100 200 300 Metres
Scale 1:5,000
Amended January 2013 (Update 8c)
LINZ Base Map December 2012

Cadastral information sourced from Land Information New Zealand data. Crown Copyright Reserved. On any State Highway the Designation is to provide for the control of access to take highways and all functions, powers and operations of Transit New Zealand in accordance with the Transit New Zealand Act 1989.

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PLANNING MAP
C 24 b
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0 100 200 300 Metres
Scale 1:5,000
Amended January 2013 (Update 8a), June 2016 (Update 8a)
LINZ Base Map May 2016

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Who owns the spatial data?

- Updating the PDF planning maps is a long, complicated process
- GIS/IT department were the only ones who could navigate the process
- Planners aren't intimately involved with the spatial data

Movement Phase

Shooting Phase

Assault Phase

Building a New District Plan





Know your
zone

More certainty for investment
and better outcomes



Encourage and build business
confidence and good design

Where to do business



We are a growing community
and we need to provide
opportunities for housing

Where we are growing



We have an ever changing coastline
and have updated coastal
information.

Our coastal story

Going Digital

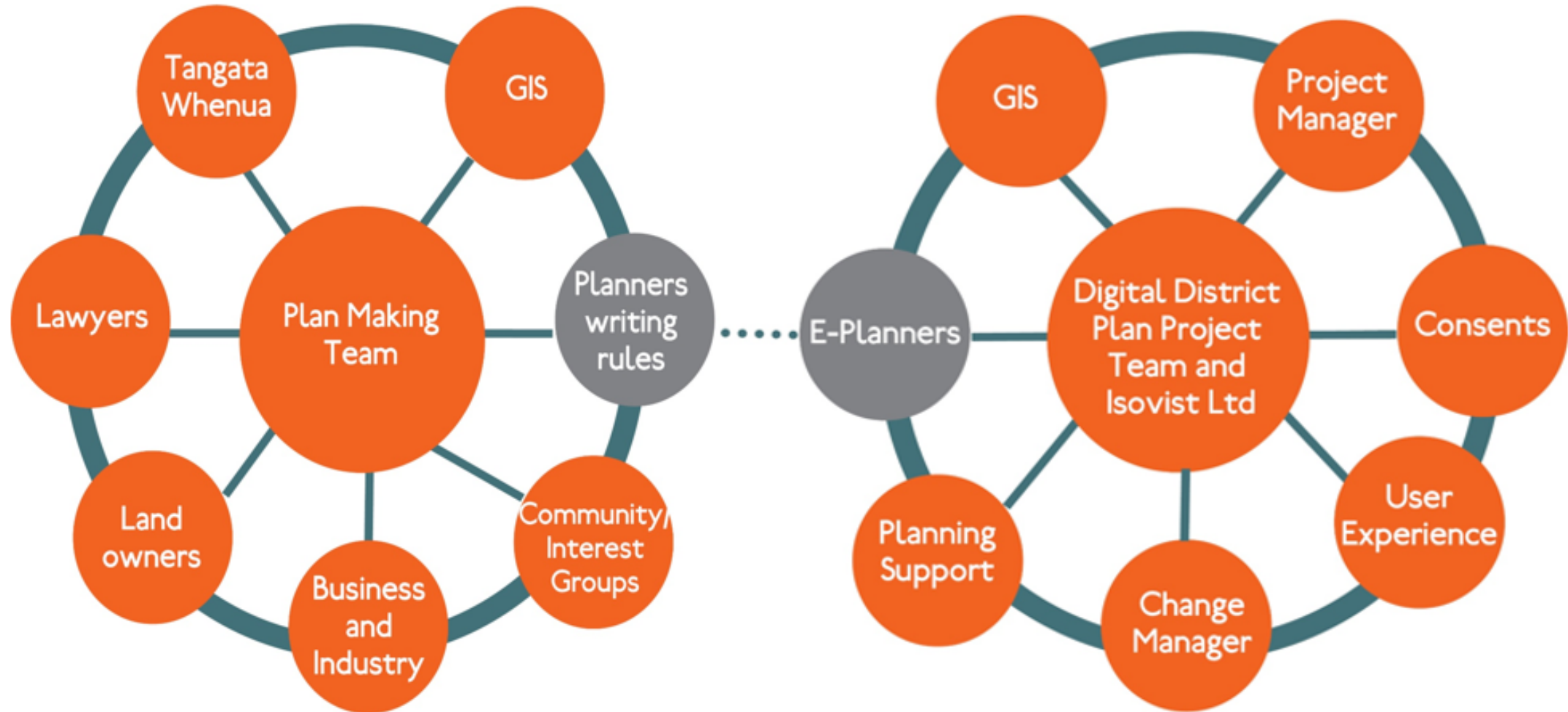
- Web-based
- Interactive
- Available across all platforms
- Mobile
- Easy to use and navigate
- Map-centric navigation

Project Management

- Went out to tender for the construction of the application
- We wanted a company that would work with us to get it just right
- We chose Isovist
 - Background in developing e-planning software
 - Working with AGILE methodology
- Business Transformation Unit (BT) ran the project
- GIS played a critical role from the very beginning

Engagement of Stakeholders

User Experience



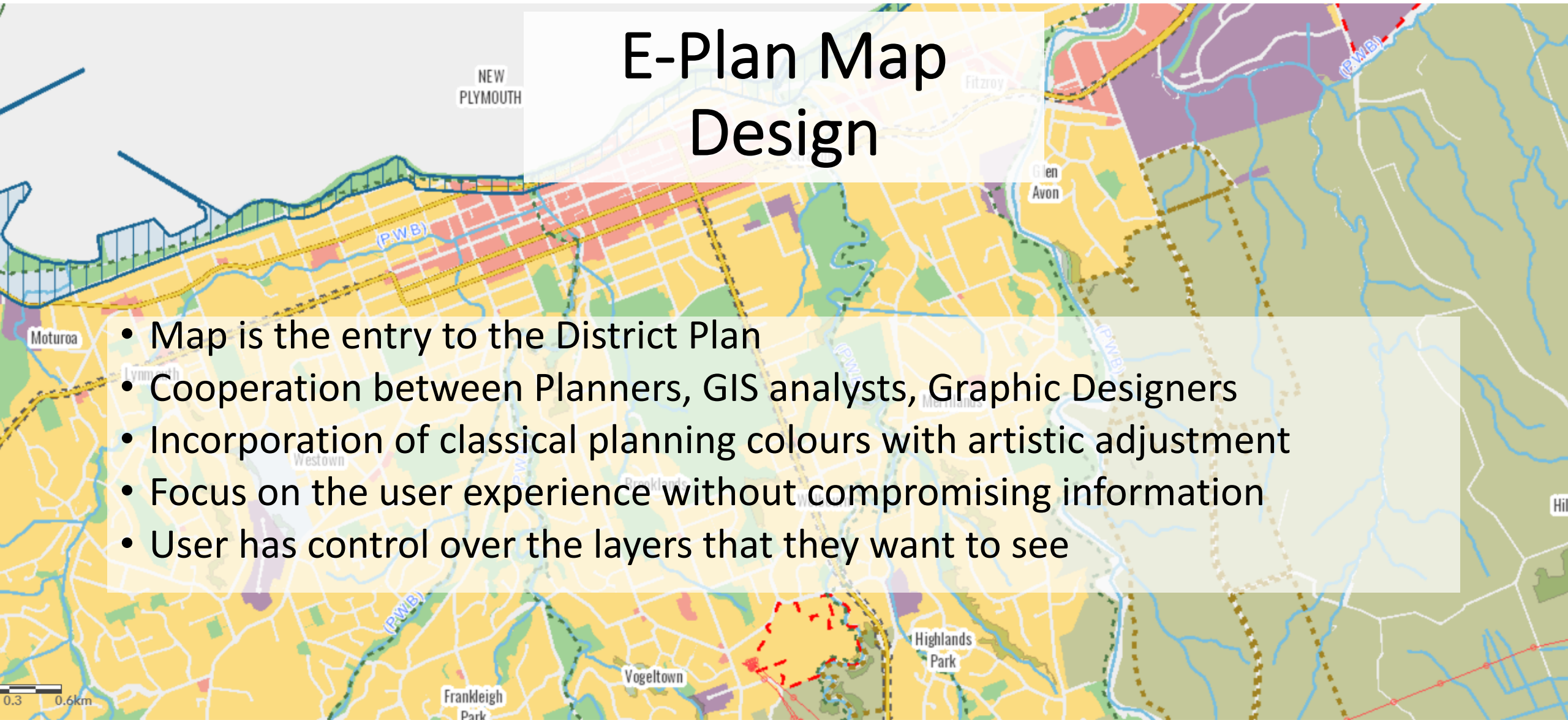
Using GIS to Inform Decisions

Moving from effects-based to evidence-based plan



E-Plan Map Design

- Map is the entry to the District Plan
- Cooperation between Planners, GIS analysts, Graphic Designers
- Incorporation of classical planning colours with artistic adjustment
- Focus on the user experience without compromising information
- User has control over the layers that they want to see



Left-Hand Panel

The image displays a web application interface for property information. The left-hand panel is a dark blue sidebar with the following content:

- Search bar: "Start typing an Address..." with an information icon and a search icon.
- Address: "2 - 76 Leach Street, NEW PLYMOUTH" in white text.
- Home icon and text: "Multiple Properties at this address" with a link "View Details".
- Information icon and text: "What can be done on this property?"
- Document icon and text: "Property Specific Draft District Plan Chapters"
- Document icon and text: "Read the full Draft District Plan"
- Document icon and text: "View Property Report (PDF)"
- Section header: "Draft District Plan" with an expand/collapse arrow.
- Section header: "Zone" with a red square icon and text "Commercial Service".
- Section header: "Roading Hierarchy" with a brown square icon and text "Name: State Highway 45" and "Type: State Highway".

The map on the right shows a street grid with the following labels and features:

- Streets: "CAMERON STREET (NEW PLYMOUTH)" and "LEACH STREET (SH45)".
- Property lots: Labeled with numbers 68, 70, 10, 11, 13, 171, 72, 76, 78, 80, and 2/75.
- Highway marker: A red shield with the number "45".
- Map controls: A zoom in (+) and zoom out (-) button.
- Map style: A dashed black outline highlights a specific lot (76).

E-Plan Demo



The background of the slide is an aerial photograph of a town, likely New Plymouth, with a large, snow-capped mountain (Mount Taranaki) in the distance under a clear blue sky. The town is densely packed with buildings, and a body of water is visible in the lower right corner.

Outcomes

- **Ratepayers**
 - Easily find information about their properties
 - Self service is encouraged
 - Content is more accessible
- **NPDC Planners**
 - Spatial literacy has increased by leaps and bounds
 - The Planners now own, know and edit their GIS data
- **Industry**
 - Planners and developers can get information more quickly
 - Security and confidence when choosing New Plymouth as a place to invest
- **Software Development**
 - Our development and design can be re-used
 - Working together with Isovist has made a product which will benefit other councils

An aerial photograph of a city, likely Christchurch, New Zealand, with a large, snow-capped mountain (Mount Cook) in the background. The city is densely packed with buildings and is situated near a body of water. The sky is clear and blue.

Outcomes Continued

- NPDC has been working closely with Ministry for the Environment (MfE) to establish a national planning map standard
- Standards will help remove ambiguity when comparing plans from different districts
- Takes the guess work out of map design for GIS Teams

E-Plan Video





Questions