New Zealand National 30 Year Infrastructure Plan

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First to See the Light

Voyaging
Thirty Year New Zealand Infrastructure Plan 2015

Content

- Background and context
- Thirty Year New Zealand Infrastructure Plan 2015
- Challenges
- The response
- Anchor actions
- The programme
Background & Context

Types of Public Assets by Value

Note: Landfill assets and motor vehicles are both less than 1% of the total assets.
Office of Auditor General

- State of Asset Management in NZ
  - $255 billion
  - 53% Central Government
  - 47% Local Government
  - 75% have Asset Plans
- Only 40% Assets Managed to Plan

Forecast accumulated renewals and depreciation

- Financial year
- Forecast accumulated depreciation
- Forecast accumulated renewals
Case for Change
We Can Do Better

- Duplication across regions
- Re-inventing the Wheel
- Opportunities for Efficiency
- Wastage 20%
- Scoping, decision making, capital, maintenance, operation, “whole-of-life”
- Benefit Realisation?
- Are we Delivery of what the Community wants?

Drivers of Change

- National Infrastructure Unit (2010)
  - Local Government Infrastructure
  - Asset Management
  - Centre of Excellence
- Road Maintenance Funding “Flat-Lined”
- Road Maintenance Task Force – REG
- Office of Auditor General Reports
- Local Govt Reforms
Road Maintenance Funding “Flat-Lined”

And the Christchurch Earthquake (2011)

Vertical accelerations > 2g
Energy = 5 Hiroshima bombs
1 in 2500 year event
Thirty Year New Zealand Infrastructure Plan 2015

The Step Change

- Sector ownership
- Lifting the debate
- Focus on the basics
- Look beyond the borders
- Innovation
- Collaboration
Vision

The 2015 Infrastructure Plan provides the vision:

*By 2045 New Zealand’s infrastructure is resilient and coordinated and contributes to a strong economy and high living standards*

Purpose of the Plan

- **set a marker** for New Zealand’s long-term infrastructure journey and the progress achieved;
- **advance the debate** on long-term provision of infrastructure;
- **deliver a step change** in our approach to infrastructure planning and management; and
- **provide confidence** to businesses and people to invest in capital, develop skills and take risk.

Two outcomes sought from the Plan

- **better use of existing infrastructure**
- **better allocation of new investment**.
Government priorities

Five fiscal priorities:

- Returning to surplus this year and maintaining surpluses in the future
- Reducing net debt to 20 per cent of GDP by 2020
- Further reducing ACC levies
- Beginning to reduce income taxes from 2017, and
- Using any further fiscal headroom to reduce debt faster.

LOOKS AT FIVE SECTORS

- Transport
- Energy
- Telecommunications
- Water (Three Waters and Productive Water)
- Social Infrastructure.
2010 to 2015

Context → Strategic direction → Evidence → Story → Response


2011 Plan Assessments

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<th>Investment Analysis</th>
<th>Resilience</th>
<th>Funding Mechanisms</th>
<th>Accountability &amp; Performance</th>
<th>Regulation</th>
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 occurs effectively occurs but could be further developed does not occur or is ineffective
2011 Water Sectors in Detail

- **Investment Analysis**: Long-term, large-scale rural water investments not occurring.
- **Resilience**: Asset performance information largely unavailable.
- **Funding Mechanisms**: Local funding not linked to national standards. Scope to make better use of metering and pricing.
- **Accountability & Performance**: Asset performance information largely unavailable.
- **Regulation**: The desired regulatory outcome for rural water has not been set.
- **Coordination**: Multiple agencies with water responsibilities. Competing uses across sectors.

Evidence Base

- **Evidence Base Overview**
- **Sector Specific Narratives**
  - Performance Indicators
  - 10yr Capital Intentions Plan
  - Scenario / Trend Analysis (Updated in 2015 only for the Energy Sector)
  - Resilience Assessment (Not updated in 2015)
Summary of findings

- Broadly, New Zealand has a good infrastructure base.
- However:
  - the quality of available data is still suboptimal; and
  - there are a number of challenges ahead
  - traditional systems will not be sufficient to meet these.

Three Waters

- Variability of data
  - differing levels of asset management maturity
  - Inconsistent data standards, understanding of critical assets, and links to decision making are particular areas to focus on strengthening.
  - Significant untapped opportunities for water providers to realise benefits from alternative governance and service provision arrangements.
  - Compliance with regulatory standards is prima facie an issue of significant scale; in many cases, well under 50% of providers are always complying.

The bottom line: The dramatic improvement in the quantity of information available over the past year has enabled a more informed conversation to occur but it has also highlighted the challenges parts of the sector face and the need for an overall step change in capability, asset management maturity and alternative governance and service provision arrangements.
Summary of findings

► To overcome these challenges, NZ needs to develop a more sophisticated approach to infrastructure management.
► A more holistic approach to asset management
► Better use of data and more effective decision-making
► Adopting innovative approaches that move away from supply-side solutions
► Regional and inter-agency collaboration
► More integrated planning regulation
► Resilience

Challenges
The challenges

Broadly, New Zealand has a good infrastructure base for today. However, to be successful over the next 30 years we need to have resolved a number of challenges...  

- Ageing assets and infrastructure networks
- Affordability constraints
- Population ageing
- Regional growth and decline
- Productivity gaps
- Technology change and cyber security risk
- Infrastructure pinch-points, especially in Auckland
- Shift in economic gravity to Asia and the opportunities
- Climate change and limits on natural resources

Responding to these challenges...
A response summarised as …

We need to make a step-change in our approach to infrastructure planning and management. … Simply building things to address our problems is no longer sustainable…

1. We need a better understanding of the levels of service we want to deliver.
2. More mature asset management practices and use of data.
3. More effective decision-making that considers non-asset solutions.

This shift will drive the two outcomes sought from the Plan - better use of existing infrastructure and better allocation of new investment.

Determining levels of service…

Incorporates key elements of …

1. Collaborate effectively
2. Better integrate land use planning
3. Have a clear and detailed vision
4. Clear alignment between individual investment decisions and economic goals.
5. Whole-of-life infrastructure costs.
Mature asset management…

Fundamental to making good decisions about how services are delivered. It should bring together key disciplines beyond engineering, including financial and spatial planning.

Includes a stronger understanding of the resilience of our infrastructure networks at a national, regional and local level, especially key pinch-points and the degree to which different parts of networks are critical to overall performance.

To become more effective we need to:

1. Get the incentives right
2. Apply asset management capability wisely
3. Collect the right kind of data using shared data standards

Optimised decision making…

To become more effective we need to strengthen …

1. Governance and tools
2. Demand management
3.
4. The regulatory system
5. Funding, financing and procurement
The Plan is actions focused...

- **The Thirty Year New Zealand Infrastructure Plan 2015** is more than just the vision; it is a **collaborative roadmap** to get us there.
- It includes an **Action Plan**, detailing what stakeholders across the public and private sectors are doing, and what else needs to be done and by who.
- The Action Plan is based on the **response framework**.
- **Forums and regional workshops** helped unpack this next vital step; to understand what the key actions and the roles of stakeholders needs to be.
- All Sectors are taking leads in delivering the Actions.
Determining levels of service

- Investigate options to support long-term integrated regional infrastructure plans, potentially with legislative recognition incorporating central and local government objectives.

Mature asset management

- Develop metadata standards for roads, buildings and water.
- Establish regional centres of excellence or similar arrangements for collating and making available the data obtained through shared metadata standards.

Optimised decision-making

- Improve capital intentions planning focussing on years one to three.
- Develop the trans-Tasman procurement market.
- Enhance procurement governance of large/significant procurements.
- RMA changes to the national planning framework.
- Longer-term review of planning legislation & alignment.

The Programme
Key initiatives/programmes

- Anchor Actions
  - meta-data standards (water, buildings and roads)
  - associated centres of excellence – analytics, support local decision making
  - options to support long-term integrated regional infrastructure plans,
- LGNZ3-Waters project, Equip and LGRA
- Policy programme of:
  - The impacts of climate change and the infrastructure response,
  - Long-term delivery of services and infrastructure provision in areas of population decline.
- Governance/delivery – Taiawhiti Roads, Northern Transport Alliance, Waikato Waters, Wellington Water
- Growth pressures - Auckland Council plans
- Supporting innovation - QLDC
- Rainfall, runoff, river channel flows, flood protection - new focus

Towards 2018

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- Implementation of action plan
- Policy work programme
- Working towards Budgets 17 & 18 and next Plan

- Evidence Base and updated story
- National Report
- Budget 17 policy
- Budget 18 policy
- Evidence Base and updated story
- National Report
- 2018 – 2028 LTP Development
- 2018 New Zealand Infrastructure Plan
- 2018 - 2028 Local Government Long Term Plans
What is the most important thing in the world?

It is the people, it is the people, it is the people.

He aha te mea nui o te ao?
He tangata! He tangata!
He tangata!