Learning from audit findings 2015 to 2017

Asset management and longterm planning

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Good practice





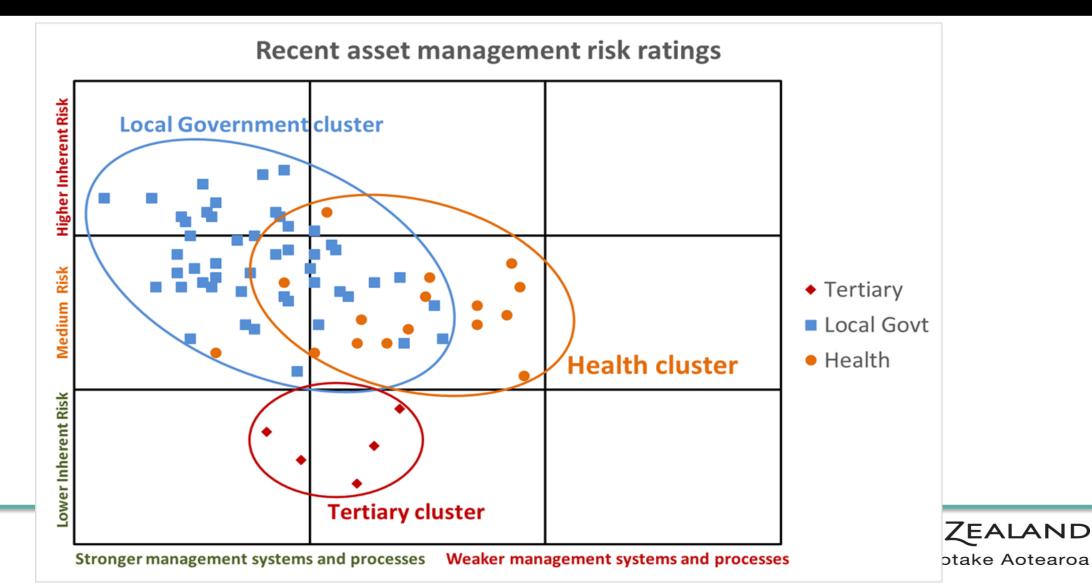


www.nams.org.nz

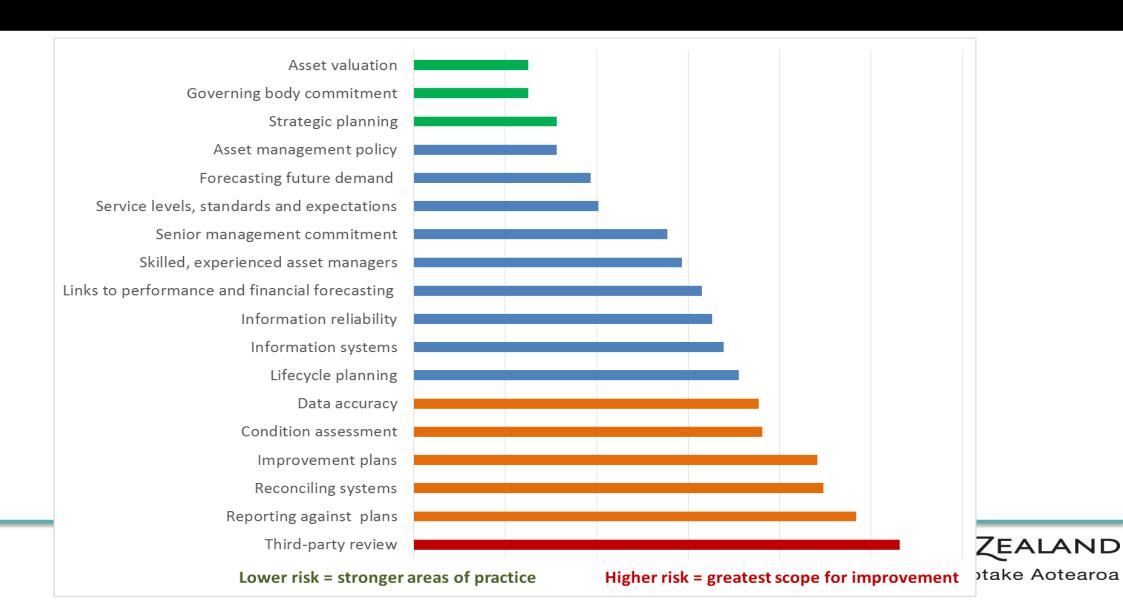
www.ipwea.org

www.iso.org

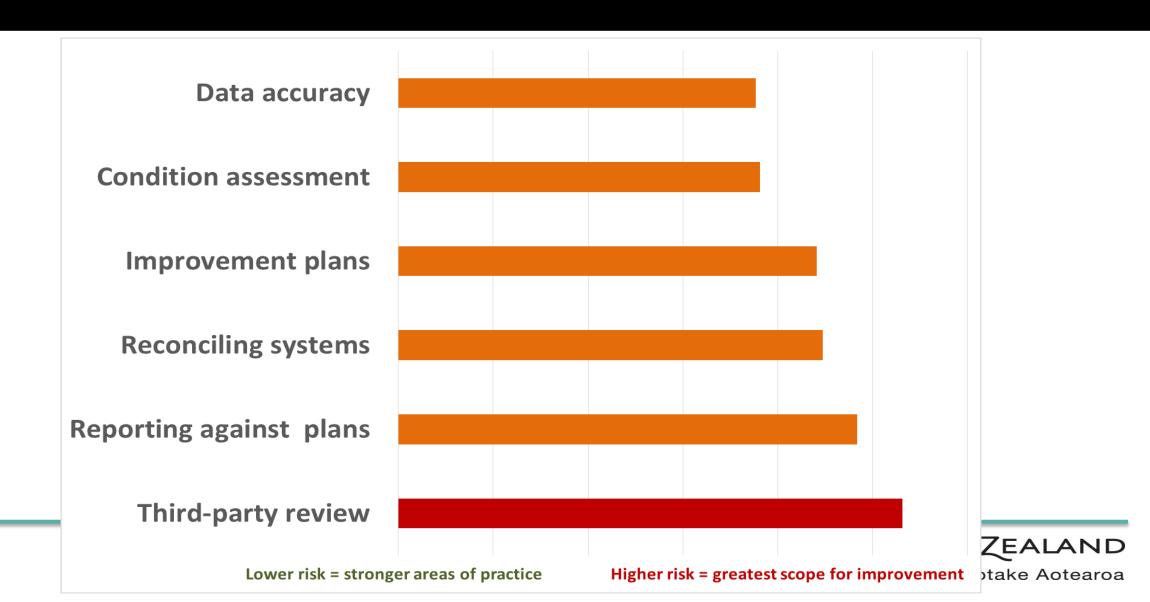
Assessing risk and opportunities for improvement



Where are the opportunities for improvement?



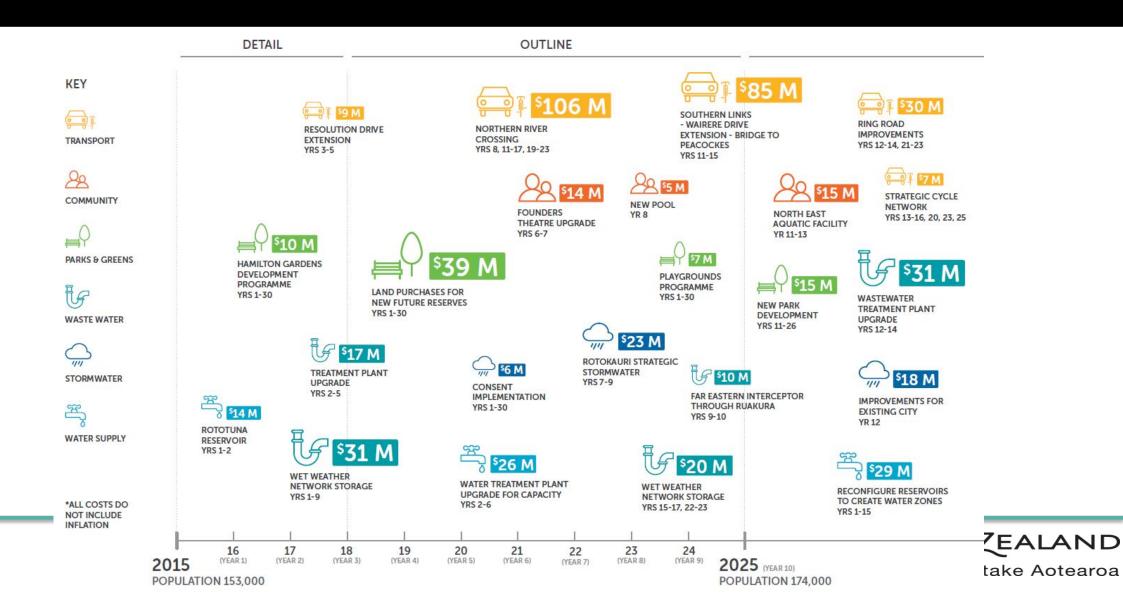
A closer look at the opportunities for improvement



The asset management pyramid

\$ **Policy** Whole of Life Levels of Risk **Service Demand** Continuous **Improvement Asset Knowledge**

Strategic asset management



Planning for success Good asset management takes a team

Asset Management Leadership **Asset Management Working Group Asset Management Sponsors**

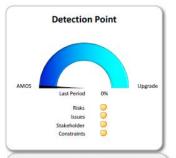
Data basics



· Approximately 35 essential Assessments are required to be completed for each of the 3 Ships. This is largely resulting from recent changes made to the Asset Hierarchy. The Assessments will be performed during Feb/March 2017.



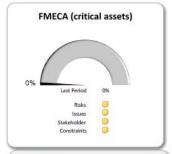
• The work activities from the Condition Assessment Reports (3 Ships), produced on 19 June 2016, and the DNV works list have fed into the FWP.



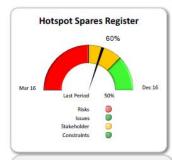
- . To be performed in conjunction with the TMP development.
- System Configuration functionallity to be created in AMOS (by SpecTec).
- · Detection Points to trigger advanced time warning for Refurbishment or Replacement.



- · Completed to the same level as the Criticality and Condition Assessments.
- · Results to date have informed the AWP and FWP.



. To be undertaken for equipment assessed as 'High' or 'Extreme' Criticality and where reliability is an issue.



- Informed by Criticality Analysis.
- Completed for Kaitaki by Chief Sioerd Gorter.
- · Completed for Aratere by Chief Sean Bryant. Yet to start for Kaiarahi - which is a Risk.



- Obsolescence Register is still being populated by the Engineering Manager.
- . Input still required from Ship's Chief, 1st and 2nd
- Some of the Change-out strategies have seen works packaged into the FWP



- · No change in progress risk.
- . TMP template design in place and partly populated. Next tasks - extract data from AMOS, compare with DNV GL suggestions, refer to OEM manuals, Criticality and Condition Assessment results - develop a tailored

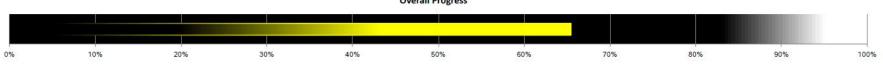


- · Works Management Compliance figures still require firm management for better outcomes.
- . Need to assign a Priority Code for reactive works to improve IIL compliance knowledge - i.e. what is important and what is not so.



- · FWP template Service Categories are now aligned with Accounting activities.
- Dry-Dock activity costs are now included into the FWP. Some cost estimates have been further improved from a historical and forward view of works scope

Overall Progress

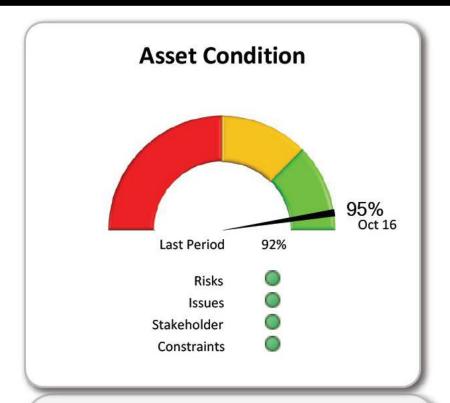




Data basics – a closer look



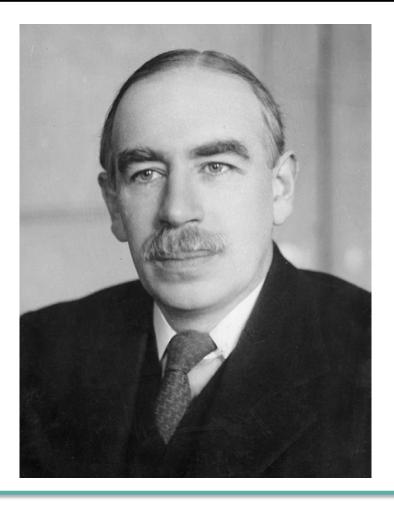
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Well informed assumptions



"When the facts change, I change my mind.
What do you do?"

John Maynard Keynes, 1883-1946

Well informed assumptions

	Assumption	Level of uncertainty
Population trends	That the regional population will continue to grow at the medium growth rate as projected by Statistics New Zealand and will reach approximately 538,700 by 2026 and 559,900 by 2046.	Medium
	Natural increase is the primary driver for growth. More than three quarters of the region's projected growth will be at 65+ years. Population decline is expected at the 0-4 and 15-29 year age groups. The ratio of elderly (65+ years) to children (0-14 years) will increase rapidly from the current 0.64 (six elderly for every ten children), to 1.16 (12 elderly for every ten children) by 2031.	
	Only modest changes to the overall ethnic composition of the region. The 'European / Other' ethnic group is expected to decrease slightly to 67.7% by 2021. Maori, Pacific Island, and Asian groups will increase slightly. ²	
Indicative areas of urban growth / intensification	Our assumptions on where urban growth and intensification will take place are based on the best publically available information from territorial authorities various urban growth / development strategies including:	Medium
	 Kāpiti Coast: Choosing Futures - Development Management Strategy 2007 (Kāpiti Coast District Council) 	
	 Proposed Kāpiti Coast District Plan 2012 (Kāpiti Coast District Council) 	
	 2007 Urban Growth Strategy (Upper Hutt City Council) – under review 	
	2012-2032 Urban Growth Strategy (Hutt City Council)	
	Wellington Urban Growth Plan 2014-2043 (Wellington City Council)	
	Porirua Development Framework 2009 (Porirua City Council)	
	 Operative Wairarapa Combined District Plan (Masterton, Carterton and South Wairarapa District Councils) – Subdivision, Land Development & Urban Growth chapter. 	
Economic growth ³	Employment in the region is projected to grow from 226,600 full-time equivalents (FTEs) in 2013 to 285,300 FTEs in 2041. This equates to an annual growth rate of 0.82% (which is 0.33% below the national average).	Medium
	GDP in the region is projected to grow from \$23,020 million in 2013, to \$44,180 million in 2041. This equates to an annual growth rate of 2.36% (which is 0.15% below the national average).	



Helping your auditor can be helping yourself

AUDIT NEW ZEALAND

Mana Arotake Aotearoa

1. Have you got a strategy for the long term sustainability of your assets?

2. Have you set an asset management policy?

3. Do you have good quality up-to-date asset management plans for achieving your strategy?

4. Does your organisation have appropriate asset management skills and experience?

5. Do you know the reliability of your asset information?

6. Do you have a structured approach to assessing the condition and performance of your assets?

7. Have you defined a clear and comprehensive set of service levels to be delivered or supported by the assets?

8. How well do you forecast future demand for the services that are delivered or supported by your assets?

9. Do you report, and get reports on, achievement of your asset management plan(s)?

10. Do you have a backlog of repairs, maintenance, and asset renewals? and what are you doing about it?

Asset management and long-term planning

