Study on the development of Asset Management Appropriate Practice and Maturity Assessments in Australasia

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Summary

Both Australia and New Zealand are sparsely populated outside their major cities, with many small, rural and remote communities. The operation, maintenance and renewal of assets by these communities is an on-going challenge with limited resources and large asset bases.

The development of asset management practice assessment and development tools and techniques has assisted communities to focus scarce resources in the practice areas of greatest risk and need. The use of asset management Maturity Audits and AMP writing tools in Australia is assisting communities with the development of capacity and resilience around infrastructure management. The paper provides an overview of these asset management practice developments.

Key Words: Asset Management Practice, Asset Management Maturity Assessments

1. Introduction

In both Australia and New Zealand infrastructure condition and serviceability has received poor ratings by respective national engineering organisations (see Appendix for further detail). This is a common issue in OECD counties with the UK, Canada, and USA all reporting similar trends.

The reduction in infrastructure ratings is a result of:

- past underinvestment
- changing population and demographics
- changing service requirements
- infrastructure age and renewal requirements

The issues associated with deteriorating infrastructure, renewal backlogs, and constrained funding of infrastructure lead to the development of infrastructure management practice in Australia and New Zealand.

This paper provides a brief summary of AM practice development in both countries over the past 20 years, particularly the AM practice issues associated with small, rural and remote communities

2. Development of New Zealand AM Practice

2.1 Economic Trouble, Debt and less infrastructure expenditure

New Zealand suffered a large and long economic recession from 1987 to 1993. During this period, which also included adjustments to becoming an open market economy, infrastructure expenditure

was at a minimum – bare maintenance only. This period also coincided with a major increase of government debt peaking in 1994 at 50% of GDP, also suppressing infrastructure expenditure. This debt took a decade to reduce. There was a further short recession in 1999 which did not affect infrastructure expenditure levels.

As a result of the underinvestment in infrastructure over the decade 1987 – 1997 by the mid 2000's New Zealand's infrastructure was judged to be in poor condition (see Figure 8 in Appendix)

2.2 Requirement for Long Term Plans (and Asset Management Plans)

In 1996, amid rising concern about the condition of New Zealand infrastructure, and the fact much infrastructure was requiring renewal, new laws were passed requiring Councils to prepare long term financial plans that included the full costs of infrastructure operations, maintenance, renewal and new (growth) capital. This legal requirement lead to the development of Asset Management Plans (AMPs) to show the management and costs of infrastructure assets. These Long Term Plans and AMPs require updating on a 3 year cycle to align with the NZ electoral cycle. The first AMPs for all Councils were developed in 1998 and some revised in 2001. As a result of a revised law in 2002 AMPs subsequently updated in 2005, 2008 and 2011. Most Council AMPs are now in their 4th generation.

This large level of asset management planning effort was required to ensure that infrastructure expenditure was optimised, in accordance with community requirements (levels of service), and that scarce community financial resources were not wasted. New Zealand has learned to manage scarce resources better.

2.3 Development of Appropriate Practice

Number Towns	Population	Suggested Initial AM Level (Waugh Infrastructure Mgmt Ltd)	Notes
6	90,000 and above	Advanced	Includes Auckland (1.4M)
34	10,000 – 90,000	Intermediate	
31	5,000 – 10,000	Core	
559	Less than 5,000	Core	

www.drinkingwater.org.nz

Figure 1 NZ Town sizes and suggested initial AM practice level (2006 Census Data)

The development of asset management planning and subsequent auditing for long term financial planning compliance had developed around the requirements of the larger towns and cities in NZ.

New Zealand has many small communities as shown in the figure above and way asset management planning and audit requirements had developed lead to a series of problems during the 2005 AMP development round, with small communities being requested to complete asset management practice at an Advanced level – out of alignment with their actual asset requirements and drivers.

Following observation of this issue Waugh Infrastructure Management Limited, as part of a coordinated regional initiative with Councils in 2008 developed a risk based methodology to determine the level of appropriate asset management practice for a Council – broadly Core, Intermediate or Advanced. This methodology subsequently won the 2009 Ingenium Excellence Award for Asset Management. The methodology went on to be used by a third of NZ Councils, and was integrated into the update of the International Infrastructure Management Manual in 2011.

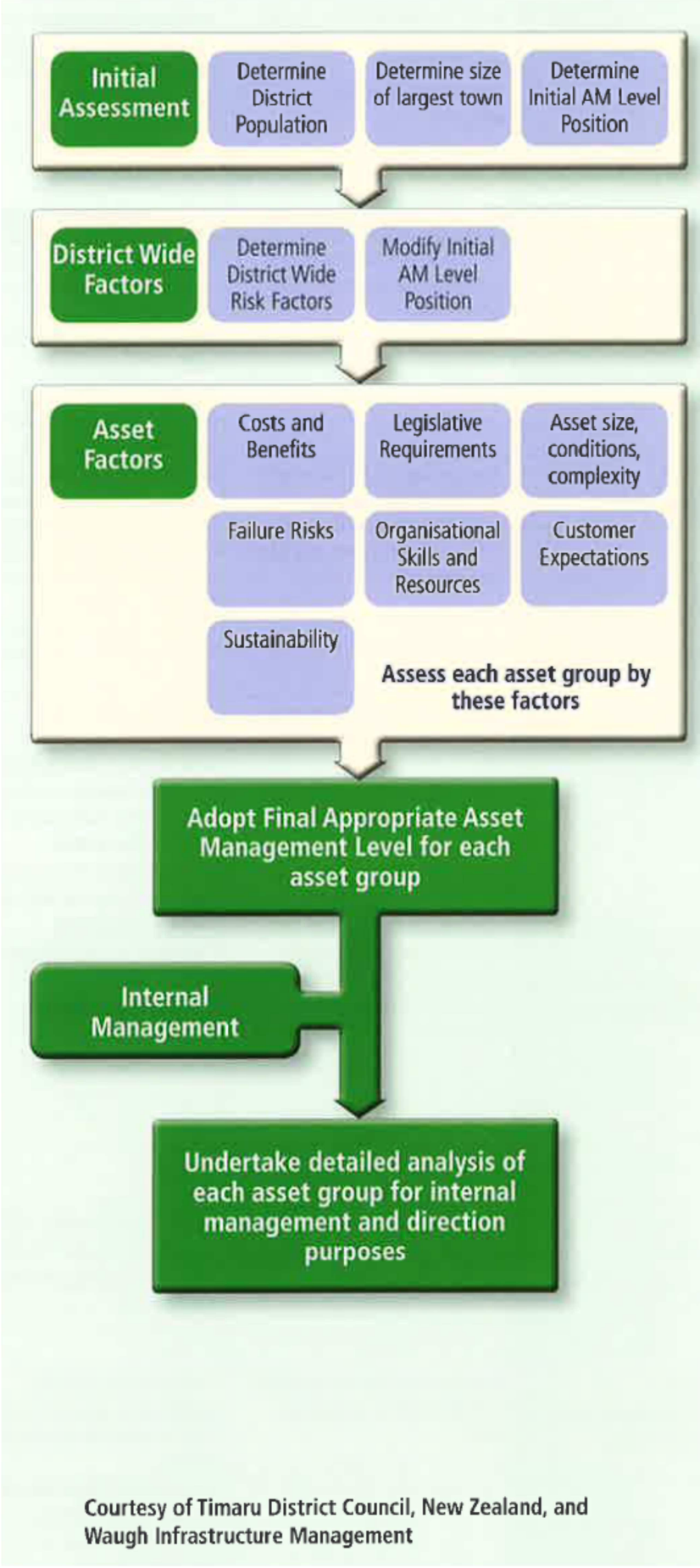


Fig 2 Appropriate AM Assessment Methodology, extracted from IIMM 2011 Case Study 10

Table 1 New Zealand Council Assessed Appropriate Level of Asset Management Practice

Assessed Appropriate Level of Asset Management										
					Activity/Asset Group					
Council	District Population (2006 Census)	Rank	Largest Town (WINZ)	Largest Town Population	Land Transport	Utilities	Parks	Solid Waste	Property	Community Services (Parks & Property)
Dunedin	118,693	8	Dunedin	89,181	Intermediate - Advanced	Advanced	Intermediate - Advanced	Intermediate	Intermediate - Advanced	
Hastings	70,842	14	Hastings City	45,715	Intermediate	Intermediate		Intermediate		Intermediate
Kapiti Coast	46,197	22	Paraparaumu	22,400	Intermediate	Intermediate (SW Advanced)			Intermediate	
Tasman	44,625	24	Richmond	10,500	Intermediate	Intermediate		Core		
Gisborne	44,460	25	Gisborne City	30,600	Intermediate	Intermediate		Core		Intermediate
Timaru	42,870	28	Timaru City	26,832	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	
Waimakariri	42,834	29	Rangiora	12,000	Intermediate	Intermediate		Core	Core	Intermediate
Waipa	42,501	32	Cambridge	13,500	Intermediate	Intermediate				Core
Selwyn	33,669	35	Rolleston	6,700	Intermediate	Intermediate		Core		Intermediate
Matamata Piako	30,483	38	Matamata	6,943	Intermediate	Intermediate		Core		Intermediate
Ashburton	27,372	42	Ashburton	16,836	Intermediate	Intermediate	Core	Core	Core	
South Waikato	21,291	47	Tokoroa	13,530	Intermediate	Intermediate		Intermediate		Intermediate
Waitaki	20,220	48	Oamaru	10,487	Intermediate	Intermediate		Core	Core	Core
Hauraki	17,193	51	Hauraki Plains	5,535	Intermediate	Core		Core		Core
Central Hawkes Bay	12,957	57	Waipukurau	3,666	Core	Core		Core		Core
Hurunui	10,476	59	Cheviot	1,640	Intermediate	Core		Core		Core
Buller	9,702	60	Westport	5,300	Core	Core		Core		Core
Wairoa	8,484	66	Wairoa	4,650	Core	Core		Core		Core
Westland	8,403	67	Hokitika	3,700	Core	Core		Core	Core	Core
Waimate	7,206	68	Waimate	3,000	Core	Core		Core		Core

Table 1 shows the result of New Zealand Council Appropriate Practice assessments completed during the period 2008 – 2011. The assessments were made using the practice assessment methodology shown in Figure 2 above. Assessments were completed across different asset classes, and generally followed population indicators. South Waikato asset management practice was higher than population might indicate due to the need to manage the effects of a rapidly declining population. Dunedin utilities was Advanced practice due to Dunedin having installed utilities reticulation very early in New Zealand's European development phase, and as a consequence just about to start 20 years of renewals at a high level of annual expenditure.

The results of the appropriate practice analysis have allowed Councils to fine tune their planning efforts and asset management practice direction, ensuring the right amount of resource and analysis is applied. This practice analysis has also allowed much more informed management of risks associated with asset management practice.

2.4 Key Issues for New Zealand AM Practice

1. Developing appropriate AM practice for varied communities – particularly smaller ones
2. Making sure not too much AM and not too little AM for the assets and issues being managed
3. Long term affordability of projected infrastructure expenditure
4. Meeting legal and audit requirements

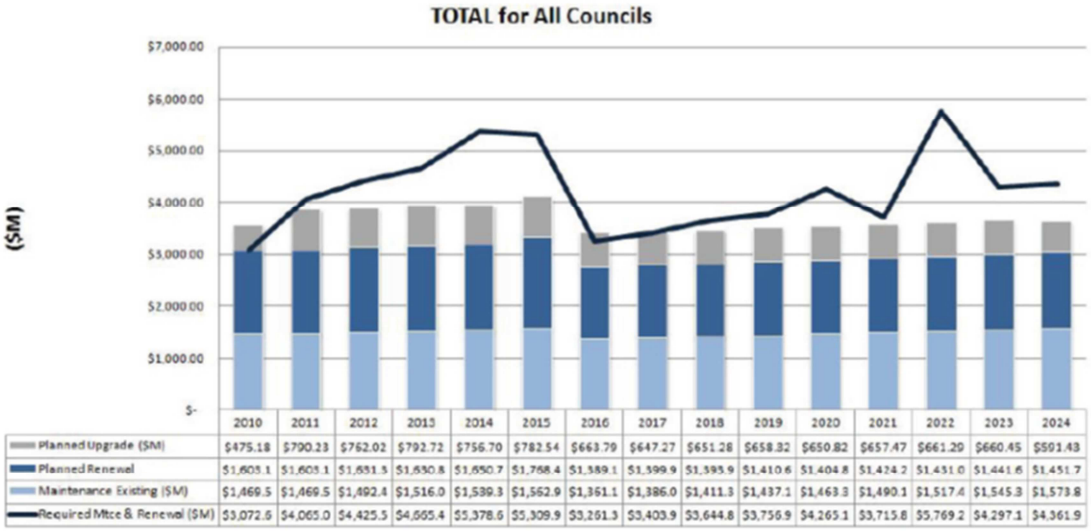
3. Development of Australian AM Practice

Australia started from a different position than New Zealand, with a federal system of Commonwealth, States and local Councils. Large utilities were early adopters of AM practices and developed to an advanced level, with international level examples of good AM practice. At a local Council level it was a different story, with the range of rules and incentives varying by state, funding income caps, under funding of infrastructure and steadily deteriorating infrastructure noted particularly in small, rural and remote communities. Affordability and who was going to pay remain issues under discussion. Analysis of the current state of Australian infrastructure is shown in Figure 9 in the Appendix

Australian asset management expertise and practice, at a high level in the large utilities and municipal areas was not transferring to the small, rural and remote communities.

Numerous studies in the past decade have highlighted the infrastructure funding deficit and infrastructure deterioration in Australia as shown in the example for local roads below, highlighting a billion dollar funding deficit in 2014 and 2015.

FIGURE 41 Projected Future Maintenance and Renewal Expenditure – All Councils



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Planned Upgrade ($M)	$475.18	$790.23	$762.02	$792.72	$756.70	$782.54	$663.79	$647.27	$651.28	$658.32	$650.82	$657.47	$661.29	$660.45	$591.43
Planned Renewal	$1,605.1	$1,605.1	$1,651.5	$1,650.8	$1,650.7	$1,768.4	$1,589.1	$1,599.9	$1,595.9	$1,410.6	$1,404.8	$1,424.2	$1,431.0	$1,441.6	$1,451.7
Maintenance Existing ($M)	$1,469.5	$1,469.5	$1,492.4	$1,516.0	$1,539.3	$1,562.9	$1,361.1	$1,386.0	$1,411.3	$1,437.1	$1,463.3	$1,490.1	$1,517.4	$1,545.3	$1,573.8
Required Mtce & Renewal ($M)	$3,072.6	$4,065.0	$4,425.5	$4,665.4	$5,378.6	$5,309.9	$5,261.3	$5,403.9	$5,644.8	$5,756.9	$4,265.1	$3,715.8	$5,769.2	$4,297.1	$4,361.9

Fig 3 The Local Roads Funding Gap, Australian Local Government Association, Oct 2012

A major concern over the past decade has been the accuracy and quality of the base information for infrastructure decision making, given the limited resources and lack of asset management implementation at many Councils, particularly small, rural and remote communities.

3.1 IPWEA leadership in the Response

The Institute of Public Works Engineering Australia (IPWEA) over a number of years worked with councils, state authorities and the Commonwealth government to develop and encourage asset management practice. IPWEA lead involvement in the development of the International Infrastructure Management Manual, a range of AM Practice Guides, the NAMS.PLUS, and NAMS.PLUS Lite suite of tools to assist Councils in the development of their asset management, and more recently the AM for small, rural and remote communities initiatives that have been Commonwealth / State funded and delivered by IPWEA.

3.2 Local Government Reform Fund – Improving capacity, resilience and infrastructure in communities

In 2010 the Council of Australian Governments signed a National Partnership Agreement to support local government and regional development. All states and Territories agreed to contribute to improving the capacity, resilience and infrastructure in communities and have committed to implement financial management frameworks that build capacity and resilience of local governments. The objectives of the Local Government Reform Fund (LGRF) are to accelerate the implementation of the Local Government and Planning Ministers' Council agreed asset and financial management frameworks; build capacity and resilience in local government; and improve the consistency and quality of local government data. The Commonwealth agreed to be accountable for gathering nationally consistent local government asset and financial data.

The outputs of the LGRF will be national consistency in the asset and financial management frameworks administered by local government, and increased collaboration between councils in planning and service delivery through the delivery of capacity building projects.

3.3 Asset Management Maturity Assessments

3.3.1 Methodology

The methodology of Asset Management Maturity Assessments is as follows:

Key staff are interviewed to ensure a comprehensive assessment of maturity and capability. The nature of the interviews involved analysis of the 11 asset management practice areas with asset custodians and other staff directly involved in asset related service provision and organisation support. The outcomes of the assessment analysis for each practice area are included in an Appendix to the report. For each of the 11 practice areas the following information has been provided:

- The current assessed maturity level;
- Key observations on the current maturity level;
- Implications of the assessed current maturity level;
- Recommendations on actions required to be taken to reach a minimum or core level of maturity.

3.3.2 Core Maturity

The core target maturity is based on core custodial responsibilities identified in the National Asset Management Framework and the IIMM and comprises the proposed minimum requirements for a custodian of community assets to carry out the following activities:

- Record and report on the state of all assets to the community;
- Meet current statutory reporting requirements;
- Ensure community safety; and
- Provide management information to guide decisions by council on the cumulating impact of decisions.

The core maturity level also aligns with the requirements, and underlying necessary organisational capability for meeting core requirements.

A score of 3 represents the core maturity level at the recommended minimum level of asset management for the organisation.

3.3.3 The Improvement Plan

It is usually recommended that as part of the consideration of the report, an Asset Management Steering Committee or equivalent governance group review and adopts the asset management

development programme to bring the entity up to core maturity by set target dates.

The development programme consists of:

1. Documents that need to be at core level defined by the report.
2. Implementation plan with important items for completion. The detailed improvement plan consists of the maturity report and any improvement items identified in the asset management plans.
3. Key strategies;
4. The recommendations together with completion of core activities partially or not completed.

3.3.4 Examples of NAMS.PLUS Lite Outputs

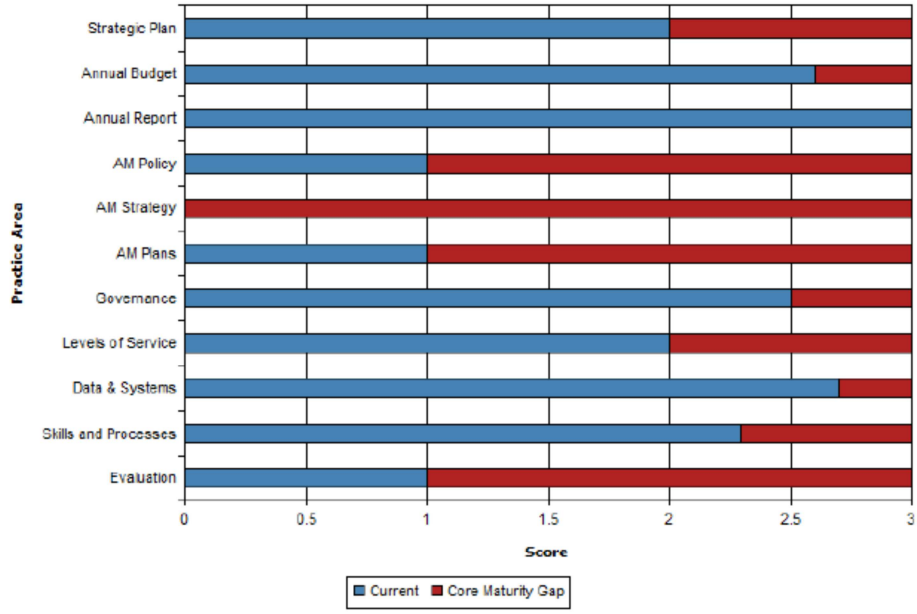


Figure 4 Maturity Assessment Gap

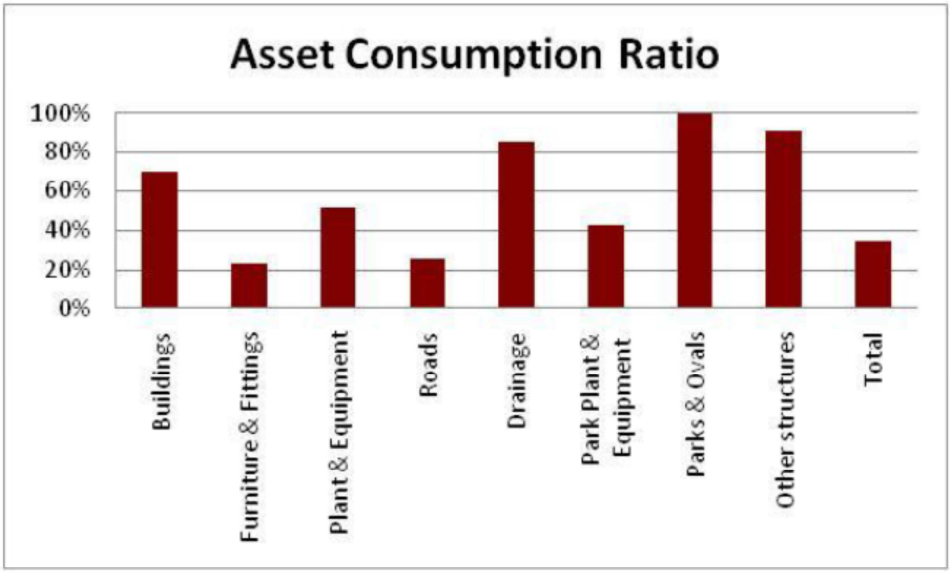


Figure 4: Example Asset Consumption Ratio Graph

Fig 5 Example of Asset Consumption Ratio Graph, from NAMS.PLUS Lite

3.4 Key Issues for Australian AM Practice

1. Implementation of financial management frameworks that build capacity and resilience of Councils
2. Asset Management for small, rural and remote communities
3. Improving AM Maturity in Councils to 'Core' Maturity
4. Improving backlog and funding shortfall projections based on core maturity understanding
5. Reaching community agreement on sustainable service levels and infrastructure funding

4. Bringing Australasian Practice Together

In November 2010 at the NAMS Advanced Asset Management Conference the two strands of practice that had been developing separately in Australia and New Zealand, based on local practice development and drivers were brought together by Jeff Roorda and Ross Waugh in a shared keynote presentation.

4.1 Transparent Service Delivery

Australia and New Zealand both have a requirement for transparent service delivery, and this translates into a need for:

1. Risk Management – Community Assets are safe and work the way they are designed to
2. Value for money service provision – everyone can see that we don't waste money
3. Open and transparent governance – we don't hide our mistakes nor pretend we don't make any

4.2 Integrated Transparent Service Delivery Business Model

The combination of the Australian NAMS.PLUS asset management Maturity Assessments and the New Zealand appropriate AM practice level analysis provided the basis for the development of an Integrated Transparent Service Delivery Business Model – providing integration of asset management capability and capacity.

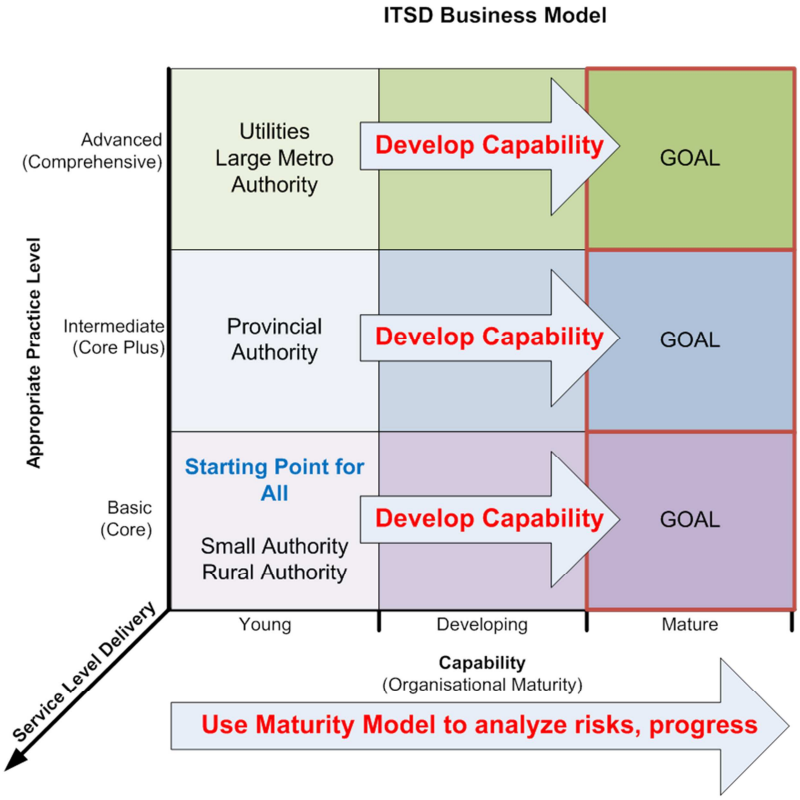


Figure 6 – Integrated Transparent Service Delivery Business Model

This model was primarily conceptual, but sparked further thinking on this subject by asset managers in both Australia and New Zealand.

Some elements of the thinking in this model have been integrated into the International Infrastructure Management Manual 2011 update, and practice around this thinking has continued to develop in both Australian and New Zealand

4.3 Further Thinking – Dunedin City Council Example

Dunedin City Council, New Zealand completed the Asset Management Appropriate Practice Assessment with Waugh Infrastructure for all their separate asset areas. Using the methodology; each asset area had been assigned a level of appropriate asset management practice.

Following the NAMS Advanced Asset Management Conference, November 2010, Gene Ollerenshaw, Asset Planning Manager, Corporate Services looked at the guidance in PAS55 and combined it with the Integrated Transparent Service Delivery Business Model thinking examined above. By linking the concepts of capacity and capability he produced the diagram below for the City Environment Department of Council. As previously discussed Water and Waste Services (shown, dark blue line) need to move their practice to 'Advanced' to optimally manage a very large renewal program. Other areas either stay at current practice (Transportation) of drop practice. The Australian Maturity Assessments concept was translated into 5 capability levels as shown on the x-axis.

This thinking has not been adopted as practice by Dunedin City yet, but shows how asset management practice thinking and methodologies can combine to direct programs, and clearly show to Council management the issues, risks and decisions required.

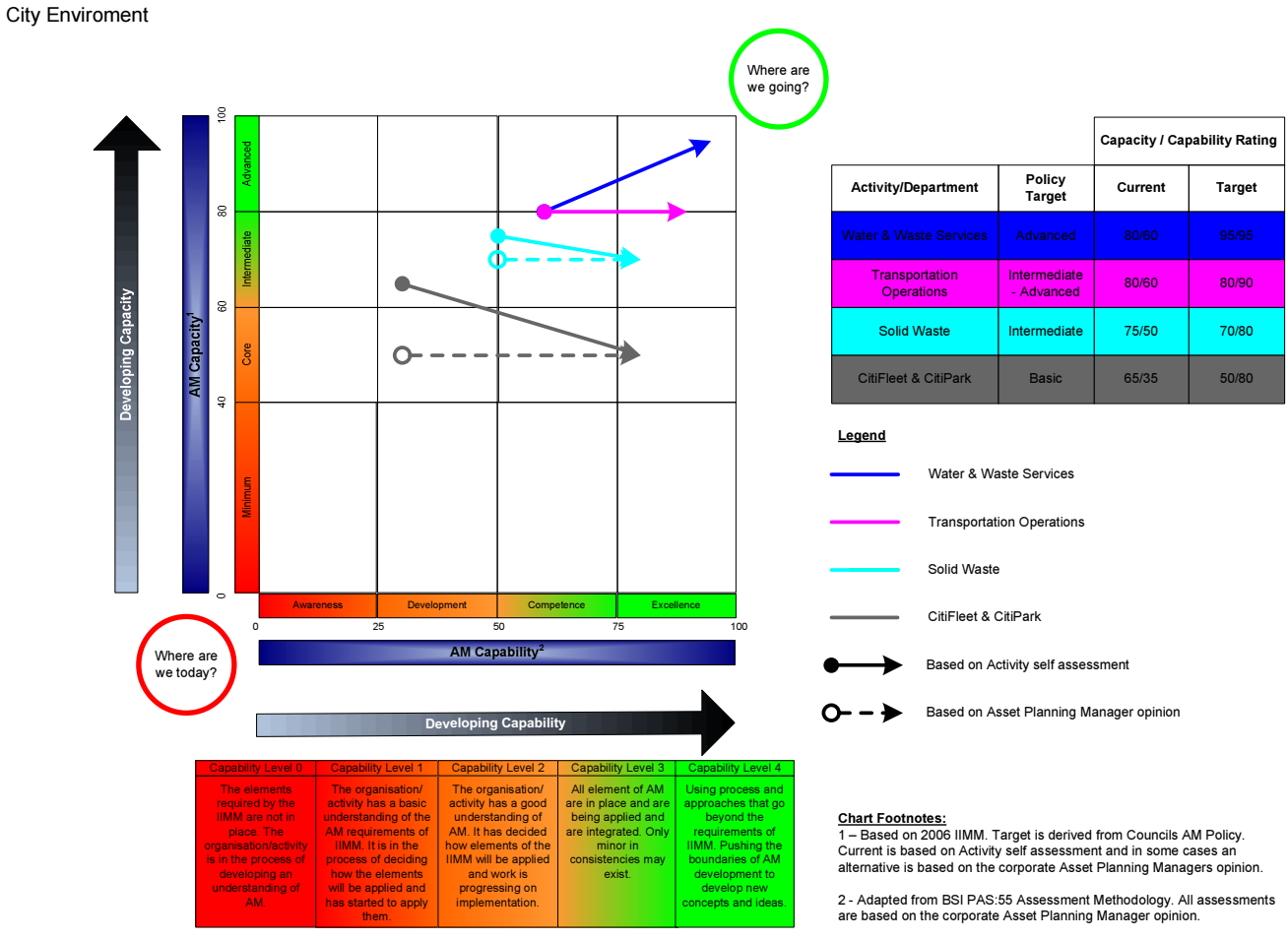


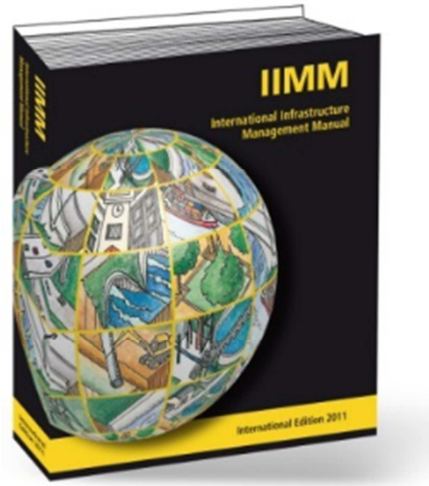
Fig 7 Dunedin City – City Environment development of AM Capacity and Capability

5. Guides and Tools

A range of manuals, tools and guides have been developed that provide assistance and direction in AM practice and the development of asset management planning. These are briefly outlined below.

5.1 International Infrastructure Management Manual (2011 Update)

The International Infrastructure Management Manual has been thought several iterations since the mid 1990's with the latest update completed in 2011. The manual incorporates the latest international practitioner thinking on infrastructure management.



The manual is available from:

New Zealand NAMS: http://www.nams.org.nz/
Australia IPWEA:
http://www.ipwea.org.au/assetmanagement/home/

5.2 IPWEA Practice Note 4 and NAMS.PLUS Lite

IPWEA has developed Practice Note 4 for small, rural and remote communities. This Practice Note combines with the IPWEA NAMS.PLUS Lite product to provide a comprehensive solution for asset management maturity assessments, and asset management plan development for these communities. Further information at:

http://www.ipwea.org.au/assetmanagement/aboutnamsau/assetmanagementforsmallruralorremotecommunities/

The IPWEA NAMS.PLUS product line has now been deployed in all Australian States, Canada and is just starting deployment in the USA.

5.3 PAS55 and ISO 55000

The UK Institute of Asset Management in association with British Standards published (Publically Available Specification) PAS55 – Asset Management in 2008, in 2 parts. The use of PAS 55 has lead the International Standards Organisation to develop ISO 55000 for Asset Management. This standard is currently under development and will incorporate the thinking of PAS 55, the International Infrastructure Management Manual and member country submissions. It is expected that ISO 55000 will be avail in the next few years and provide valued guidance and standards for asset management practice.

6. Conclusion – Delivering Asset Management Practice for Small, Rural and Remote Communities

Both Australia and New Zealand are sparsely populated outside their major cities, with many small, rural and remote communities. The operation, maintenance and renewal of assets by these communities is an on-going challenge with limited resources and large asset bases.

In New Zealand, the suggested application of larger population centre asset management practice requirements to small communities was starting to create problems around the cost and sustainability of practices. The solution, developed as a regional initiative, and then taken up by a third of New Zealand Councils, involved using a risk analysis of practice drivers to select appropriate asset management practice.

This analysis of practice has been robust enough to satisfy audit requirements, and has given smaller Councils confidence in the level of asset management practice they should be aiming for. This has allowed limited resources to be allocated to the practice areas of greatest risk and need.

Community debate is still on-going in New Zealand around the cost and long term financial sustainability of services that are delivered by Councils, however this debate is now better informed by asset management analysis of the long term costs of providing the services.

In Australia, asset management practice has varied from world class with the large utilities, through to non-existent for many small, rural and remote Councils. The issues around deteriorating infrastructure, particularly outside the cities, has been raised and reported on for a decade. As part of the community debate around these issues, and in developing a sustainable and durable solution to infrastructure funding issues, there has been concern about the quality and consistency of information used for decision making.

In 2010 a coordinated national approach to building the capacity and resilience of Councils was agreed and funded. National consistency in the asset and financial management frameworks used by local Councils is an output of this approach, to be achieved through capacity building projects.

IPWEA has been part of this capacity building approach, delivering the NAMS.PLUS suite of tools, that included asset management maturity audits, and the use of templates and tools to write asset management plans. The NAMS.PLUS suite of tools have now been deployed in Canada and the USA.

In January 2011, as this paper is being prepared, this work is on-going but initial feedback is that it is delivering good results to small, rural and remote Councils and assisting in developing capability and understanding of infrastructure management issues.

The capacity building using the NAMS.PLUS suite of tools is just the start of a long asset management journey for small, rural and remote communities, but the work being completed will inform the debate at State and Commonwealth level around the funding and sustainability of Australia's infrastructure.

7. Acknowledgments

Jeff Roorda, Principal, Jeff Roorda and Associates – Australian and NAMS.PLUS information

Gene Ollerenshaw, Asset Planning Manager, Corporate Services, Dunedin City Council – case study material and some very interesting discussions around capability and capacity.

8. Appendix

8.1 New Zealand Infrastructure Ratings 2004

Table 4 2004 New Zealand Infrastructure Ratings by ACENZ

Sector	Rating
Transport	
Roads	D-
Railways	D-
Air and sea ports	C+
Bridges	D
Water	
Water – potable	C
Water – wastewater and stormwater	D
Energy	
All energy combined (Electricity and Gas not rated separately)	E
Telecommunications	
Telecommunications	B

Figure 8 2004 ACENZ New Zealand Infrastructure Ratings

8.2 Australian Infrastructure Ratings 2010

Infrastructure Type	Australia 1999	Australia 2001	Australia 2005	Australia 2010	ACT 2010	NSW 2010	NT 2010	QLD 2010	SA 2010	TAS 2010	VIC 2010	WA 2010
Roads overall	C-		C	C	B	C-	C	C-	C-	C-	C+	C+
National roads	C	C	C+	C+		B-	B	C-	C	C+	C+	B-
State/Territory roads	C-	C-	C	C		D+	C-	C-	C	C	C+	B-
Local roads	D	D	C-	D+		D+	D+	C-	D	D	C-	C-
Rail	D-	D-	C-	D+	F	D-	C+	C-	C	F	D	C+
Ports		B	C+	B-		C	C+	B	B-	B-	C+	B-
Airports		B	B	B-	B-	B	B-	B-	B-	B	B	C+
Water overall			C	C+	C+	C+	C	C+	C+	C+	C	C+
Potable water	C-	C	B-	B-	B-	B-	C-	B-	B	B-	C	B
Wastewater	D-	C-	C+	B-	C+	C+	C-	B-	B-	C	B-	B
Stormwater		D	C-	C	C+	C	B-	C	D	C-	C-	C
Irrigation		D-	C-	C		C		C+	C+	B-	C-	C+
Electricity		B-	C+	C+	B+	C-	C-	C	B-	B-	C-	B
Gas		C	C+	B-	A-	C	A-	C+	B+	C	C	C+
Telecommunications		B		C	B-	C-	C-	B	C	C+	C	C-
Overall	D	C	C+	C+	B-	C	C+	C+	C+	C	C	C+

Table 5.1.1: Summary of Engineers Australia Infrastructure Report Cards

Legend: A = Excellent, B = Good, C = Adequate, D = Poor and F = Inadequate.

Fig 9 Summary of Engineers Australia Infrastructure Report Card, IIMM 2011 5,3

8.3 Australia – Linking AM Improvement Programme to Agreed Nationally Consistent Frameworks

Table 2 below shows the link between the agreed elements of the Local Government Reform Fund (NAMF) and the key documents, tasks and reports that are to be completed in an Asset Management Improvement Programme to bring the entity to core level.

Table 2 Core Level Maturity Linkages to National Framework

Elements of a National Approach [1]	***Core Level Assessment In Appendix A and Key Improvement Tasks in Appendix B***	***Core Level Content and Documentation as per Agreed Nationally Consistent Frameworks***
Strategic longer term plan (Strategic Plan) – Framework 3 - Element 4.2	Practice Area = Strategic Plan	*The plan should include:* *• where the council is at that point in time – current position;* *• where it wants to get to – vision and strategic objectives of the council;* *• how it is going to get there – strategies for achieving those objectives;* *• mechanisms for monitoring the achievement of the objectives; and* *• how the plan will be resourced.*
Budget – Framework 3 - Element 4.3	Practice Area = Budget	*A budget includes:* *• Estimates of revenue and expenditure with an explanation of the assumptions and methodologies underpinning the estimates;* *• Explanation of how revenue will be applied;* *• Connection to the strategic objectives; and* *• Explanation of the financial performance and position of the council.*
Annual Report – Framework 3 - Element 4.4	Practice Area = Annual Report	*The report of the council's operations (in the annual report) needs to include a broad range of information, particularly:* *• reviews on the performance of the council against strategic objectives;* *• information on a range of other matters such as major works undertaken, the range of activities undertaken, major policy initiatives and major changes in the council's functions or structures; and* *• details about the council, including information about the councillors, the chief executive officer, senior officers and the organisational structure.*
Development of an Asset Management Policy – Framework 2 - Element 4.1	Practice Areas = AM Policy	*Adopt and implement a Policy that requires the adoption of an asset management plan informed by community consultation and local government financial reporting, and which is supported by training in financial and asset management.*
Strategy and Planning – Framework 2 - Element 4.2 *Long Term Financial*	Practice Areas = AM Strategy and AM Plans	*The development of an asset management strategy by councils will enable councils to show how their asset portfolio will meet the service delivery needs of their communities into the future, enable councils' asset management policies to be achieved and ensure the integration of councils' asset management with their long term strategic plans.*

Elements of a National Approach [1]	***Core Level Assessment In Appendix A and Key Improvement Tasks in Appendix B***	***Core Level Content and Documentation as per Agreed Nationally Consistent Frameworks***
Plan *Asset Management Plans* *Asset Management Strategy*		
Governance and Management Arrangements- Framework 2 - Element 4.3	Practice Areas = Governance	*Evidence of good corporate governance in asset management would include councils:* *• assigning roles and responsibilities for asset management between the CEO, the Council and senior managers/ asset managers; and* *• having a mechanism in place to provide high level oversight of the delivery of council's asset management strategy and plan; and* *• maintaining accountability mechanisms to ensure that council resources are appropriately utilised to address councils' strategic plans and priorities.*
Defining Levels of Service - Framework 2 - Element 4.4	Practice Area = Levels of Service	*Establish service delivery needs and define service levels in consultation with the community;* *• establish quality and cost standards for services to be delivered from assets; and* *• regularly review their services in consultation with the community to determine the financial impact of a reduction, maintenance or increase in service*
Data and Systems - Framework 2 - Element 4.5	Practice Area = Data and Systems	*The enhanced framework provides for the collection of asset management data to:* *• enable the State and/or councils to measure asset management performance over time;* *• identify infrastructure funding gaps; and* *• enable councils to benchmark within the sector and council groups within their State and across Australia.* *Councils should also continually work to improve the consistency of the financial data they produce, particularly in relation to capital expenditure and the allocations between maintenance, renewal and upgrade.*
Skills and Processes - Framework 2 - Element 4.6	Practice Areas = Skills and Processes. This is reporting on how effectively Council is utilising state and national improvement programmes.	*The enhanced asset management framework contains a continuous improvement program, which includes:* *• providing councils with a 'whole of organisation' perspective and a best practice framework to enable continuous improvement of their asset management practices. This would include helping councils to set targets for future improvement;* *• developing and providing ongoing training programs for councillors, council management and officers on key asset management topics in partnership with peak bodies and agencies; and* *• providing the sector with best practice guides on key asset management topics to improve condition assessment, valuation of assets and accounting treatment.*
Evaluation - Framework 2 - Element 4.7	Practice Area =	*An asset management framework should contain a mechanism which measures its effectiveness including the asset management programs and initiatives implemented and Accounting Standards are independently audited.*

Elements of a National Approach [1]	***Core Level Assessment In Appendix A and Key Improvement Tasks in Appendix B***	***Core Level Content and Documentation as per Agreed Nationally Consistent Frameworks***
and **Use of Indicators - Framework 1 - Element 4.7 and**	Evaluation	*AND* *Indicators are signals used to convey evidence of certain directions being taken by a council and to assess whether or not desired outcomes are being achieved.* *To be effective, it is essential that indicators:* *• measure those factors which define financial sustainability;* *• be relatively few in number; and* *• be based on information that is readily available and reliable.* This reports on internal and external reporting including how Council reports on service level trends and risks where renewal levels as stipulated in the asset management plan are not being met – in other words there is a renewal gap that is not being addressed.