

Ku-ring-gai Council



Review of Council's Infrastructure Backlog and Asset Data

May 2015

Background

- ❖ Ku-ring-gai Council is seeking to ensure that, as part of the Fit for the Future local government reforms, there is a consistent approach to the comparison of asset data across councils
- ❖ In particular Council wishes to ensure that comparisons with Hornsby Council (a potential reform partner) are carried out on a like for like basis
- ❖ As such, Council has requested that Morrison Low undertake a review of Council's asset and financial data to ensure that Council infrastructure reporting is consistent and realistic
- ❖ To provide this assessment, an onsite audit of Council's asset and financial data was carried out and discussion held with each of the asset custodians and financial managers to ensure that there is a consistent organisational approach to infrastructure reporting

Special Schedule 7 (SS7)

❖ What is Special Schedule 7 (SS7)? (from accounting standards)

- Required by OLG to monitor the condition of public works and the extent to which councils are able to maintain public assets
- The schedule requires councils to determine the estimated cost to bring infrastructure assets to a satisfactory condition (Cost to Satisfactory)
- In determining the Cost to Satisfactory (C2S) councils should be estimating, in current dollars, the amount required to be spent on existing infrastructure only
- All costs must be limited to providing the 'existing' service, not an improved one
- The C2S is a reporting requirement for SS7 and is different to, and not comparable to, the planned or forecast asset renewal expenditure. Insufficient renewal expenditure will leave assets in poorer condition which will be reflected in a higher C2S
- The level of 'satisfactory' condition is considered to be condition 2 unless the community has been consulted
- It should be noted that Council undertook extensive consultation with the community in the development of the Council's asset management strategy

Special Schedule 7 (SS7) cont.

- This consultation process “Closing the Gap” established acceptable service levels for all Council asset classes
- The required annual maintenance is the amount that should be spent to maintain assets in a satisfactory standard
- It is important to note that C2S does not include requirements for expanded and new assets or assets that are under capacity or not meeting existing service requirements
- Councils are also required to report on the actual maintenance expenditure expended on assets as well as the required maintenance expenditure for each asset class
- Required annual maintenance is the amount that should be spent to maintain assets in a satisfactory standard
- The OLG provides no guidance as to how the required maintenance or the C2S are to be calculated

Cost to Satisfactory (C2S)

- ❖ For a council to realistically calculate the C2S of its assets the council must know the condition of the assets, which requires that there is a
 - consistent asset condition rating regime and
 - regular asset inspection program in place
- ❖ This would appear to be the case at Ku-ring-gai for all major asset classes except for kerb and gutter, bridges and stormwater assets
- ❖ OLG guidelines state that Councils must, in consultation with the community, determine what is satisfactory condition. The OLG has determined that condition 2 is satisfactory unless the community has been consulted about the condition of assets. As part of the “closing the Gap” consultation Council consulted extensively with the community on assets and asset condition.

Condition Assessment

- ❖ Council currently has two different condition matrices for asset condition
- ❖ The different matrices are detailed below. The differences between the two are not significant and can easily be resolved. We would suggest a common and expanded condition matrix for all assets be adopted to provide better guidance for asset inspectors

Condition Grading	Description of Condition
1	Very Good: only planned maintenance required
2	Good: minor maintenance required plus planned maintenance
3	Fair: significant maintenance required
4	Poor: significant renewal/rehabilitation required
5	Very Poor: physically unsound and/or beyond rehabilitation

	Rating	Description of Condition
1	Excellent condition	Only planned maintenance required.
2	Good	Minor maintenance required plus planned maintenance.
3	Average	Significant maintenance required.
4	Poor	Significant renewal / upgrade required.
5	Very Poor	Unserviceable.

Condition Assessment cont.

- ❖ An example of an expanded condition matrix that is generally consistent with the International Infrastructure Management Manual – 2011, and used by some of our clients is detailed below

Condition Rating	Condition	Descriptor	Guide	Residual Life as a % of Total Life	Mean %age residual life
1	Excellent	Sound physical condition. Asset likely to perform adequately without major work.	Normal maintenance required	>86	95
2	Good	Acceptable physical condition, minimal short term risk of failure.	Normal maintenance plus minor repairs required (to 5% or less of the asset)	65 to 85	80
3	Satisfactory	Deterioration evident, failure in the short term unlikely. Minor components need replacement or repair now but asset still functions safely.	Significant maintenance and/or repairs required (to 10 - 20% of the asset)	41 to 64	55
4	Worn	Deterioration of the asset is evident and failure is possible in the short term. No immediate risk to health and safety.	Significant renewal required (to 20 - 40% of the asset)	10 to 40	35
5	Poor	Failed or failure is imminent or there is significant deterioration of the asset. Health and safety hazards exist which present a possible risk to public safety.	Over 50% of the asset requires renewal	<10	5

Condition Assessment cont.

- ❖ The Office of Local Government OLG provides some guidance by way of the Integrated Planning and Reporting Guidelines. In general terms:
 - In order to achieve consistency across the NSW local government sector it is necessary to define what is meant by 'satisfactory standard'
 - Satisfactory is defined as "satisfying expectations or needs, leaving no room for complaint, causing satisfaction, adequate"
 - With this in mind, OLG has established that the level of satisfactory standard for public works should be good (level 2) based on their current condition matrix below

Level	Condition	Description
1	Excellent	Normal maintenance
2	Good	Some Surface/pavement structure deterioration – patching only needed for repair
3	Average	Serious surface/pavement structure deterioration- requires resurfacing or recycling of pavement structure
4	Poor	Deterioration materially affecting entire surface/pavement structure- requires renovation within 1 year
5	Very poor	Deterioration is of sufficient extent to render the surface/pavement structure unserviceable

Condition Assessment cont.

- ❖ In our opinion most councils could not afford to keep all assets in condition 2
- ❖ However when comparing the OLG condition matrix to both your current and the proposed expanded condition matrix, we consider that your condition 3 is comparable to the OLG condition 2 (see next table)
- ❖ As such, rather than recalibrate Council's condition matrix it could be argued that the Ku-ring-gai condition 3 is equivalent to the OLG condition 2
- ❖ It could be reasonably argued that Council has consulted its community on asset condition as a result of the "Closing the Gap" consultation process. To ensure that there is no ambiguity in the discussion around asset condition we would suggest that Council adopt condition 3 as satisfactory and indicate this in its condition matrix.
- ❖ Recommendation
 - That Council formally adopt condition 3 as satisfactory condition.
 - That condition 3 in the Councils condition matrix be identified as satisfactory.

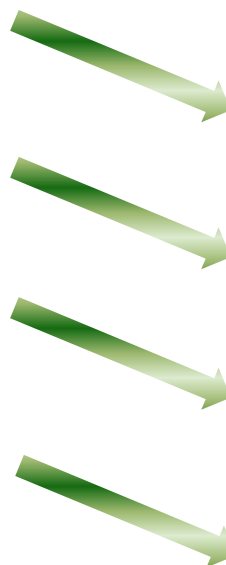
Condition Assessment cont.

OLG Condition Description

1. Normal maintenance
2. Some surface/pavement structure deterioration - patching only needed for repair
3. Serious surface/pavement structure deterioration - requires resurfacing or recycling of pavement structure
4. Deterioration materially affecting entire surface/pavement structure- requires renovation within one year
5. Deterioration is of sufficient extent to render the surface/pavement structure unserviceable

Ku-ring-gai Condition Description

1. Very Good: only planned maintenance required
2. Good: minor maintenance required plus planned maintenance
3. Fair: significant maintenance required
4. Poor: significant renewal / rehabilitation required
5. Very Poor: physically unsound and / or beyond rehabilitation



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Review of asset and financial data

Methodology for Calculating C2S

- ❖ Assume that satisfactory condition is 3
- ❖ Take a asset network rather than an individual asset approach
- ❖ What is the cost of bring condition 4 assets to condition 3?
- ❖ What is the cost of bring condition 5 assets to condition 3?
- ❖ How do we determine this?
- ❖ Utilise the Council's condition matrix and determine what the difference is between a condition 3, 4 and 5 asset
- ❖ Knowing the current replacement cost of the assets we can apply a percentage of the current replacement cost of assets in condition 4 and 5 to determine the C2S
- ❖ The next chart shows how these percentages are determined

Methodology for Calculating C2S cont.

Condition Score	1	2	3	4	5
Defect %	0%	0 - 5%	5 – 20%	20 – 40%	40 - 100%
Average defect %	0%	2.5%	12.5%	30%	70%

Represents approximately
17.5% of asset value

Represents approximately
57.5% of asset value



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Review of asset and financial data

Methodology for Calculating C2S cont.

- ❖ The reality is that a council would never renew an asset in condition 5 or condition 4 to condition 3
- ❖ Renewal work would generally return the asset to condition 1 or 2
- ❖ Taking a network view means the Cost to Satisfactory is an indicative cost required to bring the whole assets portfolio up to a satisfactory standard
- ❖ As such, the Cost to Satisfactory is calculated by adding the cost to bring condition 4 asset to condition 3 and the cost to bring assets in condition 5 to condition 3

Required Maintenance

- ❖ SS7 also requires that councils compare the actual annual maintenance on the various classes of assets with the required maintenance spend
- ❖ Required annual maintenance is the amount of money that should be spent to maintain assets in a satisfactory condition
- ❖ What is maintenance expenditure?
 - Expenditure that ensures the asset reaches its useful life
 - Maintenance expenditure does not extend the life of the asset
- ❖ At a network level it could be expressed as a % of the replacement cost of the assets

Required Maintenance cont.

- ❖ Increases in Council's asset portfolio will result in an increase in maintenance liability. This is a reasonable assumption especially when a complete network view of the assets is used
- ❖ Where a council componentises an asset to better reflect the consumption of the assets, different maintenance rates are able to be applied to the asset components to further improve the estimate of required maintenance
- ❖ For the purpose of SS7 we have looked at what similar councils are doing in relation to maintenance expenditure on assets
- ❖ We have also used known industry benchmark data to determine required maintenance expenditure
- ❖ In the longer term, trends in asset condition can also indicate the impact that expenditure is having on assets

How does Council Currently Estimate Special Schedule 7

- ❖ Council currently does not have a unified approach to the determination of Cost to Satisfactory
- ❖ The current methodology is based on applying a % to the current replacement value of assets in condition 4 and 5 as an estimate of C2S
- ❖ The % applied varies from 0 – 55% depending on asset class
- ❖ There is no validation for the variation in % of value utilised nor is it applied consistently across asset classes
- ❖ The common % assumes no difference between assets in condition 4 and 5, in terms of C2S
- ❖ The required maintenance figures are determined by each of the individual asset management plans. We have made no assessment as to whether these estimates are reasonable or not

Assessment of Council's Asset Data

- ❖ We have met with all Councils' asset custodians to review the validity of the asset data for each of the various asset classes
- ❖ **Road Assets**
 - Current road condition is determined utilising a pavement condition index, which is based on road roughness, road cracking and pavement rutting
 - Since the 2013/14 SS7 was published, updated asset condition data has been supplied
 - Although road seal and road pavement have different asset lives they have been grouped together and treated as the one asset
 - This method assumes that when the seal has failed, the whole pavement has failed
 - This is generally not the case. As the road pavement represents about 60% of the overall asset value, the current C2S is, in our opinion, over estimated
 - Based on information that Council currently has available, separate parameters could be used to determine the condition of the seal and the condition of the pavement

Assessment of Council's Asset Data cont.

❖ Road Assets (cont.)

- Road roughness, measured as NASRA Roughness, provides a good guide to road seal condition
- Although not ideal, rutting depth provides an indication of pavement condition
- As such we have developed condition matrices based on roughness and rutting for the road seal and pavement, these are shown below

Condition	Seal (NRM roughness count/km)	Pavement (rutting mm)
1	< 40	< 3
2	41 - 80	3 - 7
3	81 - 110	7 - 10
4	111 - 140	10 - 15
5	> 140	> 15

Assessment of Council's Asset Data cont.

❖ Road Assets (cont.)

- The following chart shows the break up of Council's road asset condition, based on Pavement Condition Index (PCI) and the road component break up based on road roughness and rutting depth
- A visual inspection of a sample of roads indicated that the new condition matrices appear to provide a reasonable estimation of Council's road condition. Staff also indicated that the break up seems reasonable, however further in-field verification may be required

Condition	2013/14 road condition based on PCI	Road seal condition	Road pavement condition
1	32%	0%	3%
2	6%	17%	52%
3	6%	40%	32%
4	14%	28%	12%
5	43%	15%	1%

Assessment of Council's Asset Data cont.

- Council has undertaken a sample survey of road condition utilising the same contractor that undertook the survey of the Hornsby roads
- The results show considerable variation in condition currently recorded by Council
- The survey consisted of a sample of 117 road segments. Based on the old data, 28 of the 117 segments were in condition 4 or 5 - approximately 24% of the sample set
- The new survey results show only two segments were considered to be in condition 4 or 5
- This significant variation in road condition confirms our initial findings that the current condition assessment of Council's roads is not a true reflection of the condition of the road assets
- **Recommendation**
 - That Council undertake a full condition assessment of its roads to be broken down into components to get a current up to date condition assessment of the road assets.

Assessment of Council's Asset Data cont.

❖ Kerb and Gutter

- Council has a detailed asset register for kerb and gutter
- The register has not been updated recently and the condition data would appear to show the assets in significantly worse condition than would reasonably be expected
- As such, the kerb and gutter assets contribute significantly to the C2S
- Council should undertake a review of the kerb and gutter asset register with a view to ensuring that the condition data is representative of the true asset condition
- A subsequent condition assessment of the kerb and gutter assets has been undertaken and additional data provided. This data should be updated in the financial system
- The new Kerb & Gutter asset condition suggests that approximately 0.4% of the asset are in condition 4 or 5 compared to the original condition data which suggests that 40% of the assets are in condition 4 or 5
- **Recommendations**
 - That kerb and gutter asset inspections be scheduled as part of an ongoing condition inspection program for all assets
 - That a full condition inspection of the kerb and gutter assets be undertaken

Assessment of Council's Asset Data cont.

❖ Footpath

- Council has a comprehensive and up to date footpath register
- The footpath condition is updated on a regular basis
- Council models the footpath defects to determine a overall footpath condition rating for each footpath segment
- The current processes for footpath assessment would appear to be satisfactory
- **Recommendation**
 - That Council's footpath condition matrix be regularly reviewed to ensure that footpath condition is appropriate

❖ Buildings Assets

- Council has recently implemented a new asset management system for its building assets. The new system allows for Council to place a condition on each of the elements of the building allowing a better condition assessment of the overall building portfolio

Assessment of Council's Asset Data cont.

❖ Buildings cont.

- To date Council has utilised the asset valuations as a guide to asset condition. As the assets have been considered as a whole and the condition assessment predominately based on age a distorted view of overall building condition has been used
- Council's buildings asset staff are currently working on the componentisation of the building assets and the full condition assessment of the building assets
- In the meantime a desk top review based on staff knowledge and experience of the assets has been carried out to give a more realistic assessment of the overall building condition
- The condition assessment based on age estimated that approximately 34% of all building assets were in condition 4 or 5, whereas the revised desktop assessment shows that approximately 17% of the building assets are in condition 4 or 5
- **Recommendation**
 - That the componentisation of building assets continue and condition assessment be carried out on a component basis where possible

Assessment of Council's Asset Data cont.

❖ Stormwater Assets

- Council has a well established asset inventory of its stormwater drainage assets
- The assets appear to be operating as expected subject to normal wear and tear
- Council does not have detailed current asset condition data on all its stormwater assets
- A small proportion of the assets have been inspected by CCTV which revealed that the asset base is in a reasonable condition considering the asset age
- **Recommendation**
 - That Council continue to monitor asset condition utilising cost effective measures where possible
 - CCTV inspection of pipe should only be used where there is an identified problem or other methods of asset assessment are not practical

Assessment of Council's Asset Data cont.

❖ Recreation Assets

- Council has an up to date and current parks and recreational facilities asset register in place
- Council staff carried put the latest asset valuation.
- Asset condition would appear to be up to date and current
- Staff have in place a ongoing asset inspection program which regularly updates the asset registers
- **Recommendation:**
 - Council continue to undertake condition assessments of parks and recreation assets

Adopting this Methodology for Ku-ring-gai Council

- ❖ We have recalculated Council's Special Schedule 7 in two ways
- ❖ Scenario 1: We have assumed that all Council's asset data is correct and has not been changed from what is in Council's 2013/14 financial statements
- ❖ Scenario 2: We have used revised condition data; where possible broken the asset down into components which we believe better reflects the current condition of the assets and the overall infrastructure backlog of the Council. Council has also updated the actual maintenance expenditure based on reviewed maintenance classifications.

	C2S	Required maintenance	Actual maintenance	Backlog ratio	Maintenance ratio
2013/14 Financial Statements	\$165,170,000	\$9,892,000	\$9,367,000	0.32	0.95
Scenario 1	\$102,325,000	\$12,726,000	\$9,367,000	0.18	0.74
Scenario 2	\$24,590,000	\$10,691,000	\$11,478,000	0.04	1.07

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Review of asset and financial data

Review of Financial Asset Data

- ❖ As part of our onsite investigations into the suitability of the Council's asset financial data we met with the asset managers responsible for each asset class and the key financial staff at Council
- ❖ As you would expect, the financial staff rely on the asset managers to provide details on asset inventory, valuation and condition data
- ❖ Currently all asset classes are valued by in house staff except for building and bridge assets, which have been valued by an external valuer
- ❖ The financial asset data is relatively up to date however there are delays in up dating recent asset data. Whilst not significant there are variations in details between the asset systems and the finance systems
- ❖ These variations will be eliminated as the Council moves to an integrated finance / asset management system

Finance Data cont.

- ❖ In relation to the asset depreciation rates for each of the asset classes, building assets have been valued by external valuers who have looked at a more detailed evaluation of the Council's property portfolio
- ❖ Any review of the building asset lives should be carried out in consultation with Council's external valuers
- ❖ In relation to the other assets valued by in house staff, it is difficult to determine whether the correct depreciation rate is being applied without a complete understanding of the individual asset characteristics
- ❖ We have compared Ku-ring-gai's depreciation rates for roads based information provided by LG solutions which compares depreciation rates in each councils financials statements in the following table
- ❖ A comparison of the metropolitan councils suggest that Ku-ring-gai's road depreciation per km is below the metropolitan group average (see next table) and as such Council can be reasonably assured that the road assets are not being over valued in comparison to like councils

Finance Data cont.

Council	Roads Depreciation - Absolute Value	Roads Depreciation per Km of Local Roads	Kms of Local Roads
Auburn Council	\$ 5,987.00	\$ 30,085.43	199.00
Randwick City Council	\$ 7,601.00	\$ 27,539.86	276.00
Blacktown City Council	\$ 31,495.00	\$ 25,752.25	1,223.00
Bankstown City Council	\$ 11,583.00	\$ 21,410.35	541.00
Rockdale City Council	\$ 5,606.00	\$ 21,234.85	264.00
Canada Bay City Council	\$ 3,902.00	\$ 20,645.50	189.00
Willoughby City Council	\$ 4,095.00	\$ 20,577.89	199.00
Fairfield City Council	\$ 12,432.00	\$ 20,447.37	608.00
City of Ryde	\$ 6,060.00	\$ 19,739.41	307.00
Hurstville City Council	\$ 4,092.00	\$ 19,213.24	213.00
Parramatta City Council	\$ 9,463.00	\$ 18,303.68	517.00
Ku-ring-gai Council	\$ 6,519.00	\$ 14,682.43	444.00
Canterbury City Council	\$ 4,508.00	\$ 14,448.72	312.00
Holroyd City Council	\$ 4,190.00	\$ 13,052.96	321.00
Marrickville Council	\$ 2,034.00	\$ 10,538.86	193.00
Sutherland Shire Council	\$ 7,043.00	\$ 8,937.82	788.00
Warringah Council	\$ 3,355.00	\$ 7,309.37	459.00

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Review of asset and financial data

Finance Data cont.

- ❖ It should be noted that some of the larger variations in the values could be based on how individual councils report on their assets in Note 9a of the financial statements. As such, Council's depreciation rate for roads would appear to be reasonable
- ❖ Further comparison with industry benchmarks would help confirm these finding
- ❖ Depreciation rates should be set in accordance with the fair valuation guidelines and match the loss of value in the assets rather than minimising depreciation to achieve a better financial result
- ❖ As part of any assessment of asset values a review of useful lives should be undertaken
- ❖ Asset life should where possible match asset performance and match the actual life achieved

Finance Data cont.

- ❖ The tables below compare the useful lives currently used by Ku-ring-gai Council and those used by the Southern Sydney Regional Organisation of Councils (SSROC)
- ❖ We have compared only the high value assets however Council should review all useful lives as part of the revaluation process

Component	Description	SSROC useful life	Ku-ring-gai
ROAD - FLEXIBLE PAVEMENT	Granular pavement	100	50 – 60 yrs.
ROAD - WEARING COURSE	Asphalt wearing course	25	20 – 25 yrs.
ROAD - WEARING COURSE	Seal	12	5 – 15 yrs.
ROAD - SIGNS	Regulatory Signs	7	7 yrs.
ROAD - RIGID PAVEMENT	Concrete pavement	120	50 – 100 yrs.
FOOTPATH - ASPHALT	Asphalt footpath	25	40 yrs.
FOOTPATH - CONCRETE	Concrete footpath	80	80 yrs.
FOOTPATH - SEGMENTAL PAVER	Segmental paver footpath (sans base)	20	30 yrs.
FOOTPATH - SEGMENTAL PAVER	Segmental paver footpath (concrete base)	50	
KERB & GUTTER - CONCRETE	All concrete kerb and gutter types	100	60 yrs.
KERB & GUTTER - SANDSTONE	Sandstone kerb and gutter	100	
KERB & GUTTER - BRICK	Brick kerb and gutter	75	60 yrs.
	Traffic Management Devices	40	50 yrs.
	Street Furniture	40	7 – 20 yrs.
	Bus Shelters	40	30 – 50 yrs.

Finance Data cont.

Component	Description	SSROC Useful Life	Ku-ring-gai
PIPE-RC	Reinforced concrete pipe	150	90 – 110 yrs.
PIPE-FRC	Fibre-reinforced concrete pipe	150	90 – 110 yrs.
PIPE-TERRACOTTA	Clay/Terracotta pipe	100	90 – 110 yrs.
PIPE-BRICK	Brick pipe	100	90 – 110 yrs.
PIPE-STEEL	Steel pipe	50	
PIPE-GALVANISED	Galvanised pipe	80	
PIPE-CAST IRON	Cast Iron pipe	120	
PIPE-ALUMINIUM	Aluminium pipe	40	
PIPE-UPVC	UPVC pipe	60	90 – 110 yrs.
PIPE-RELINED	Relined pipe	100	90 – 110 yrs.
PIPE-CONCRETE	Concrete pipe	120	90 – 110 yrs.
PIPE-SANDSTONE	Sandstone pipe	100	90 – 110 yrs.
PIPE-HDPE	High density polyethylene pipe	100	90 – 110 yrs.
PIT-MASONARY	Brick, Rendered, and Besser block pit	100	90 – 110 yrs.
PIT-SANDSTONE	Sandstone pit	100	90 – 110 yrs.
PIT-PRECAST CONC	Precast concrete pit	100	90 – 110 yrs.
PIT-UPVC	UPVC pit	60	90 – 110 yrs.
PIT-HDPE	High density polyethylene pit	100	90 – 110 yrs.
PIT-CAST INSITU CONC	Cast insitu concrete pit	100	90 – 110 yrs.
PIT LID-CAST IRON	Cast Iron pit lid	100	90 – 110 yrs.
PIT LID-CONC	Concrete pit lid	100	90 – 110 yrs.
GRATE-CAST IRON	Cast Iron grate	100	90 – 110 yrs.
GRATE-GALVANISED	Galvanised steel grate	80	90 – 110 yrs.

Finance Data cont.

- ❖ In general it would appear that Council has asset lives shorter than those recommended by the SSROC Councils
- ❖ Council should review the asset lives for all assets as part of the revaluation process, taking into account the findings of the SSROC Councils and a detailed understanding of what asset lives are being achieved in the Ku-ring-gai area
- ❖ Council currently has a significant residual value on some of its assets. The current process for determining residual value is not supported
- ❖ Residual value may be recognised where
 - the asset is intended to remain in service and is not intended to replace the asset
 - an asset is renewed or replaced in full and the cost to restore the service potential of an asset is less than the replacement cost

Finance Data cont.

- ❖ Keeping this in mind, earthworks as part of a road are considered non – depreciable or as a residual value
- ❖ In the case of Ku-ring-gai the current residual value is based on condition and as such does not make logical sense.
- ❖ Should council wish to use residual values on their infrastructure assets these should be based on the typical asset renewal strategies of the organisation
- ❖ It should be noted however that there is currently consideration been given by AASB to the tightening of rules around the use of residual values.
- ❖ Should Council wish to apply a residual value to its asset then this would need to be supported by documented evidence of the asset replacement strategies
- ❖ **Recommendations**
 - That a working group be set up to with the asset team and the finance team to ensure that asset financial reporting is consistent and current
 - That Council undertake a full review of the useful life of all assets
 - That the methodology for determining residual value should be reviewed to take into account current replacement strategies and the fair valuation guidelines

Identified Issues

- ❖ Should in SS7 the calculation of the backlog ratio use the Current Replacement Cost (CRC) rather than Written Down Value (WDV) as part of ratio calculation?
 - The integrated planning and reporting guidelines are very clear that the backlog ratio is calculated by dividing the C2S by the WDV of the assets
 - Under the current form SS7 uses WDV as the comparative base for both condition assessment and the determination of C2S
 - By showing the condition breakdown by WDV would show, from an economic view, the unrealised economic value of assets in poor condition
 - It should be noted however that the early Fiscal Star reports on “*The Financial Sustainability of NSW Councils, An Independent Assessment for Review Today*” (2007) utilised replacement cost of the assets in determining the backlog ratio
 - The TCorp Assessment of Councils carried out in 2013 however defined the backlog ratio as “estimated cost to bring assets to a satisfactory condition (from Special Schedule7) / total infrastructure assets (from Special Schedule 7)”
 - WDV has been used as the value of “total infrastructure assets” by TCorp

Identified Issues cont.

- ❖ Is it acceptable to remove assets from the backlog figure if they will not be renewed in the future?
 - SS7 should be consistent with the asset valuations in note 9a of the Council's financial statements. As such, if an asset remains on the Council's books as an asset then it should be included in the backlog calculation
 - In more practical terms whilst an asset remains on the Council's books it has a realisable value and also poses a maintenance and renewal liability for the organisation. As such, it is appropriate that it forms part of the backlog calculation
 - It should be noted that Council can include notes / comments as part of the special schedule and if there are assets that are due for sale / disposal, comments can be included for clarification purposes

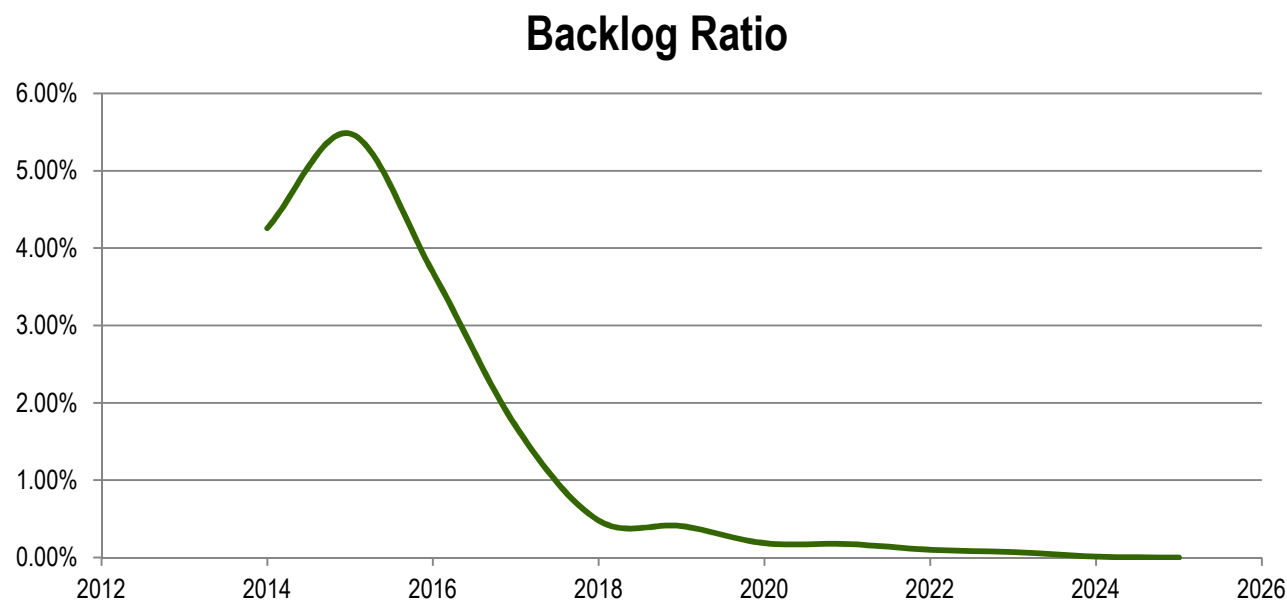
Future Asset Position

- ❖ We have modelled the future asset expenditure requirement of the organisation based on the scenario 2 asset information previously discussed. Council has provided us with long term estimated capital expenditure on assets including renewals, new and expanded asset expenditure
- ❖ Based on this information we have modelled what we consider a realistic estimation of the infrastructure backlog and the written down value of assets in 2017 and 2024
- ❖ We have also estimated the required additional asset expenditure to achieve compliance with the asset maintenance and renewals ratio and compliance with the backlog ratio in five years
- ❖ Projected asset expenditure is as follows

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Renewals (\$,000)	8,746	27,719	28,761	25,005	19,858	21,698	20,557	21,480	21,504	21,802	22,245
Additions (\$,000)	17,815	11,871	28,908	95,010	11,909	20,766	22,372	18,464	3,803	6,342	6,568
Disposals (\$,000)	9,688	5,000	7,000	1,200	2,500	550	1,500	2,500	3,500	2,000	0

Future Asset Position cont.

- Based on this information we have further modelled what we consider a realistic estimation of the infrastructure backlog for assets from 2015 and 2025 as shown in the chart below



local government

Review of asset and financial data

Future Asset Position cont.

- ❖ The revised allocation indicates that the backlog ratio will reach the benchmark of 2% in 2017.
- ❖ Under this future funding option average annual renewals funding is approximately \$21.8M over the period 2015 – 2025 where as average annual depreciation over this period is approximately \$19.5M
- ❖ This trend will show a steady decrease in the backlog over this period.
- ❖ As mentioned previously the issue of asset maintenance has not been addressed however a positive operating performance and reallocation of funding to Maintenance will address this issue.
- ❖ It should be noted that from an asset perspective it is always better to give priority to asset renewals expenditure until assets are in the desired condition, after that time maintenance funding may be increased, and renewal funding return to the benchmark of 100%

Future Asset Position cont.

- ❖ Under the revised capital allocation in all years except 2015 renewals funding is greater than depreciation resulting in a continued decline in the asset backlog.
- ❖ It is clear that under the revised funding split that council will achieve a sustainable asset position within 2 -3 years.
- ❖ Council is also at this time reviewing its current depreciation rates for various asset classes. This review will aim to give a more realistic rate of depreciation for assets that better reflect the true loss of value over time. As such it is anticipated that the over all depreciation expense will decrease and result in an overall improved asset position
- ❖ Recommendation
 - In all future capital projects that Council clearly identify the split between capital renewal and new or upgraded asset funding.

Comparison with Hornsby Council

- ❖ Morrison Low assisted Hornsby Council in 2013 in verifying its estimated cost to bring its infrastructure to a satisfactory standard. The C2S estimate in the 2013 statements was determined by Morrison Low utilising the same methodology as we have applied to Ku-ring-gai Council as part of this report
- ❖ The estimated C2S in the 2014 statements was carried out by Hornsby Council, however it is of the same order of magnitude as that carried out in 2013 and, based on our previous analysis, is a reasonable estimation of the condition of the assets
- ❖ It should be noted that the condition matrix utilised in the Hornsby SS7 is based on CRC not WDV which is not in accordance with the OLG guidelines and as such the published data does not provide a direct comparison with Ku-ring-gai

Comparison with Hornsby Council cont.

- ❖ Hornsby has used the incorrect formula in determining the backlog ratio. Utilising the correct formula (WDV rather than the CRC) the revised backlog ratio is 0.7%. This is still well under the benchmark of 2% due to the very low C2S
- ❖ Hornsby Council is reporting that approximately 1.2% of its asset base is in condition 4 or 5, whereas analysis of Ku-ring-gai asset data (scenario 2) suggests that 14% of the asset data is in condition 4 or 5
- ❖ It should be noted that when comparing Hornsby and Ku-ring-gai Councils a direct comparison is not always appropriate. Ku-ring-gai is a metropolitan council whereas Hornsby is a larger outer metropolitan council and will have different asset related issues and different depreciation rates for many of its assets
- ❖ A comparison of the asset depreciation rates between Hornsby and Ku-ring-gai have been carried out to identify where the greatest variation in depreciation rates are.

Comparison with Hornsby Council cont.

- ❖ The comparison of depreciation rates was carried out by comparing the depreciation verses the CRC of the various asset types based on information from note 9a of the financial statements. The results are shown below

	Ku-ring-gai Council	Hornsby Council
CRC of Infrastructure assets	\$927,305	\$1,135,052
WDV of Infrastructure Assets	\$517,535	\$791,113
Depreciation/ CRC	1.62%	1.43%
Depreciation/ CRC (roads)	1.75%	1.74%
Depreciation/ CRC (Buildings)	2.11%	2.78%
Depreciation/ CRC (Stormwater)	1.01%	0.89%
Depreciation/ CRC (Footpaths)	2.93%	1.99%

Comparison with Hornsby Council cont.

- ❖ The key findings of this comparison are
 - that Ku-ring-gai has an overall higher depreciation rate than Hornsby Council, however this is to be expected given the differences between the councils being compared
 - in the roads asset class the rates of depreciation are very similar
 - there are variations in the depreciation rates for footpaths and stormwater drainage which may warrant further investigation
- ❖ The primary difference in comparison between Hornsby and Ku-ring-gai Councils' assets is that Hornsby is reporting that its assets are generally in a satisfactory condition. Whilst we have not verified the Hornsby asset data we have no reason to suggest that the data is anything but an accurate reflection of the condition of Hornsby Council's infrastructure
- ❖ It should be noted that it is not unreasonable to expect that Ku-ring-gai Council's assets are in slightly worse condition than Hornsby due to the increased usage and utilisation of assets and a more developed older asset base associated with metropolitan councils

Summary

- ❖ Cost to Satisfactory condition for infrastructure assets is a key parameter in the Special Schedule 7 report which NSW councils are required to submit in their financial reports
- ❖ There are numerous ways to calculate Cost to Satisfactory for SS7
- ❖ To establish a robust calculation methodology Ku-ring-gai Council asset managers have
 - reviewed their condition ratings and decided that their condition rating of 3 will represent a 'satisfactory' asset condition for reporting to Special Schedule 7
 - confirmed the defect counts and hence a percentage of renewal cost allocations for each of the asset condition ratings
 - confirmed the distribution of the assets by value across the condition ratings
 - applied an assessment tool developed by Morrison Low to arrive at a cost to bring infrastructure assets to a satisfactory condition, taking each asset class as a whole network

Summary cont.

- ❖ The overall cost to bring infrastructure assets to a satisfactory condition has been assessed at \$24.6m based on a revised condition assessment of Council's building and road assets and adopting Morrison Low's backlog methodology. This is compared against a written down value of \$577.8m - which represents a backlog ratio of 4.3%
- ❖ This compares to Hornsby's backlog ratio of 0.7%
- ❖ Councils recently adopted Long Term Financial Plan estimates that annual asset renewals expenditure will exceed a annual depreciation resulting in a steady decline in Councils infrastructure backlog.
- ❖ Further the new adopted LTFP allocates sufficient funds to cover the required maintenance of assets over the modelling period.

Conclusion

- ❖ By adopting the revised asset condition matrix and adopting the new methodology for calculated the C2S, Council's backlog ratio has been recalculated as 4.26% compared to the reported value of 32%
- ❖ The new condition data and methodology in our opinion reflects a more accurate view of Council's overall asset condition
- ❖ Expenditure forecasts show that Council has sufficient funds for the maintenance renewal and expansion of its assets.
- ❖ Based on Councils recently adopted Long Term Financial Plan Councils infrastructure backlog will decline to below the current benchmark by 2017 and remain below the benchmark over the modelling period.



A word cloud of project components. The words are arranged in a cluster, with 'local government' at the top, 'procurement' in green below it, 'alliance partnering' in grey below that, 'long term financial plan' in grey to the left, 'asset management' in blue below 'alliance partnering', 'waste management' in green below 'asset management', 'governance' in blue below 'waste management', 'financial/feasibility modeling' in green below 'governance', 'economic development' in grey below 'financial/feasibility modeling', and 'sustainability' in green at the bottom.

local government
procurement
alliance partnering
long term financial plan
asset management
waste management
governance
financial/feasibility modeling
economic development
sustainability