Special schedules – Local Government Code of Accounting 2023/2024 – Section 4

Requirements

Councils must prepare the following special schedules (SS):

- Permissible income for general rates
- Report on infrastructure assets

Special schedules must be submitted to the Office of Local Government (OLG) by no later than the close of business 31 October each year.

All references to the Act in this document relate to the *Local Government Act 1993*.

The permissible income reports the income for the current reporting year and for the following year. The permissible income is calculated in accordance with the rate-peg limit and/or other adjustments in accordance with the Act and appropriate approvals by the Independent Pricing and Regulatory Tribunal (IPART) or the Minister for Local Government.

The permissible income calculates any excess or catch-up results from the forward-looking permissible income and the carry-forward total amount. The data in the permissible income is derived from Schedule 3 in the 'permissible income for general rates' work papers. This schedule is required to be audited in conjunction with the financial statements and the audit report included.

Report on infrastructure assets provides information on a council's assets in addition to that contained in the Infrastructure, Property, Plant and Equipment note of the council's General Purpose Financial Report. The nature of the information in the report on infrastructure assets is related to the condition, maintenance and renewal of infrastructure assets.

The format of the report on infrastructure assets is mandatory. Detailed commentary has been provided to assist councils in completing the schedule.

While the net cost of services, water supply operations and sewerage service operations are not reported within the special schedules, the data will be collected via the financial data return (FDR).

NSW Council
Special schedules for the year ended 30 June 2024

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NSW Council
Permissible income for general rates

	2023/24 $'000	2024/25 $'000
Notional general income calculation (1)		
Last year notional income yield	$	$
Plus/minus adjustments (2)	$	$
Notional general income	**$**	**$**
Permissible income calculation		
Percentage increase (%)	%	%
~~Special variation (3)~~	~~%~~	~~%~~
~~OR Rate peg~~	~~%~~	~~%~~
~~OR Crown land adjustment incl. rate peg~~	~~%~~	~~%~~
Less expiring special variations amount	$	$
Plus percentage increase amount (3)	$	$
~~OR plus rate peg amount~~	~~$~~	~~$~~
~~OR plus Crown land adjustment and rate peg amount~~	~~$~~	~~$~~
Sub-total	**$**	**$**
Plus or minus last year's carry-forward total	$	$
Less valuation objections claimed in previous year	$	$
Sub-total	**$**	**$**
Total permissible income	**$**	**$**
Less notional income yield	$	$
Catch-up or (excess) result	**$**	**$**
Plus income lost due to valuation objections claimed (4)	$	$
Less unused catch-up greater than 10 years (5)	$	$
Carry forward to next year (6)	**$**	**$**

Notes:

1. The 'notional general income' will not reconcile with rate income in the financial statements in the corresponding year. The statements are reported on an accrual accounting basis, which includes amounts that relate to prior years' rates income.
2. Adjustments account for changes in the number of assessments and any increase or decrease in land value occurring during the year. The adjustments are called 'supplementary valuations' as defined in the *Valuation of Land Act 1916 (NSW)*.
3. The 'percentage increase' is inclusive of the rate-peg percentage, and/or special variation and/or Crown land adjustment (where applicable),
4. Valuation objections are unexpected changes in land values as a result of land owners successfully objecting to the land value issued by the Valuer General. Councils can claim the value of the income lost due to valuation objections in any single year.
5. Unused catch-up amounts or the rate peg balance amounts will be deducted if they are not caught up within ten years. These amounts can be adjusted for when setting the rates in a future year.
6. Carry-forward amounts which are in excess (an amount that exceeds the permissible income) require Ministerial approval by order published in the *NSW Government Gazette* in accordance with section 512 of the Act. OLG will extract these amounts from permissible income from general rates in the financial data return (FDR) to administer this process. Please check that data are transferred accurately to the financial statements and FDR.

COMMENTARY – Permissible income for general rates

Under the provisions of the Act, all councils are required to calculate the annual permissible rates income based on the adjusted notional general income from the previous year.

Permissible income from general rates has been developed to improve reporting and accountability to the community. The addition of SS permissible income from general rates, to the financial statements and FDR also streamlines both the external audit process and councils' annual reporting processes.

As part of this process councils will first need to complete the permissible income work papers to calculate the annual permissible income. The general manager and responsible accounting officer must sign the statement of compliance (included in the work papers) confirming that the calculation complies with the Act. A summary of the calculation is then transferred to SS permissible income from general rates, in the financial statements and the FDR.

The signed statement of compliance is submitted to the auditors, together with the work papers and financial statements. The auditor completes a compliance checklist for the permissible income calculation and signs the independent auditor's report. The checklist is returned to council and the auditor's report is lodged as part of the financial statements.

Councils must comply with Chapter 15 of the Act, which includes compliance with the maximum permissible general income for a year within the rate-peg limit and any approved variations to the rate peg that may be applied.

When councils calculate rates above the permissible amount, the rates go into an 'excess' result, which is a contravention of the Act.

Under s 512 of the Act, councils with excess results require an exemption by the Minister to validate the rates. These exemptions are published in the New South Wales Government Gazette. OLG will capture the council's excess results for reporting to the Minister through the financial statements and the FDR process.

SS permissible income from general rates is forward looking, and also calculates the total amount available (starting point) to calculate the following year's rates.

NSW Council
Report on infrastructure assets as at 30 June 2024

Asset class	Asset category	Estimated cost to bring to assets to satisfactory standard	Estimated cost to bring to the agreed level of service set by council	2023/43 Required maintenance^	2023/24 Actual maintenance	Net carrying amount	Gross replacement cost (GRC)	Asset condition as % of gross replacement cost				
		$'000	$'000	$'000	$'000	$'000	$'000	1	2	3	4	5
Buildings *												
Other structures *												
	Roads											
	Bridges											
	Footpaths											
	Other road assets (incl. bulk earth works)											
	Sub-total											
Water supply network *												
Sewerage network *												
Stormwater drainage *												
Open space/recreational assets *	Swimming pools											
	Other open space/ recreational assets											
	Sub-total											
Other infrastructure assets *												
Total classes	**Total – all assets**											

* Must reconcile with Infrastructure, Property, Plant & Equipment note. ^ Required maintenance is the amount identified in Council's asset management plans.

KEY FOR ASSET CONDTION:

#	Condition	Description
1	Excellent/Very Good	No work required (normal maintenance)
2	Good	Only minor maintenance work required
3	Satisfactory	Maintenance work required
4	Poor	Renewal required
5	Very Poor	Urgent renewal/upgrading required

NSW Council
Report on infrastructure assets as at 30 June 2024

Infrastructure asset performance indicators*– consolidated

$'000	Amounts	Current year indicators	2023	Benchmarks
Building and infrastructure renewals ratio				**>100%**
Asset renewals (only infrastructure assets listed above)	$			
Depreciation, amortisation and impairment	$			
Infrastructure backlog ratio				**<2%**
Estimated cost to bring to satisfactory standard	$			
Net carrying amount of infrastructure assets	$			
Asset maintenance ratio				**>100%**
Actual asset maintenance	$			
Required asset maintenance	$			
Cost to bring assets to agreed service level				
Estimated cost to bring assets to an agreed level of service set by council	$			
Gross replacement cost	$			

Infrastructure asset performance indicators – general, water and sewer funds*	General 2024	2023	Water 2024	2023	Sewer 2024	2023	Benchmark
Building and infrastructure renewals ratio							**>100%**
Asset renewals (only infrastructure assets listed above)							
Depreciation, amortisation and impairment							
Infrastructure backlog ratio							**<2%**
Estimated cost to bring to satisfactory standard							
Net carrying amount of infrastructure assets							
Asset maintenance ratio							**>100%**
Actual asset maintenance							
Required asset maintenance							
Cost to bring assets to agreed service level							
Estimated cost to bring to satisfactory standard							
Gross replacement cost							

*All indicators are calculated using the asset classes identified in the above table – do not include any other asset classes.

Commentary – Report on infrastructure assets

The report on infrastructure assets provides additional information on a council's infrastructure assets to that contained in Infrastructure, Property, Plant and Equipment note. The nature of the information in the report on infrastructure assets is related to maintenance, renewal, condition and costs. This information should be consistent and derived from the council's asset management plans.

The format of the report on infrastructure assets is mandatory. The detailed commentary has been provided to assist councils in completing the schedule and to ensure a consistent approach across the sector.

Asset Classes

- 'Other structures' is designed for such infrastructure assets as: statues, fences, monuments, clock towers and so on.
- 'Open space/recreational assets' includes assets such as swimming pools (but not including buildings, plant and equipment, car parks etc. that are associated with the swimming pool complex), playground equipment, BBQs and outdoor fitness facilities.
- 'Other infrastructure' includes jetties, boat ramps, sea/rock/retaining walls etc.

Asset renewal

The cost of renewal shall include renewal and major rehabilitation works. Renewal shall be defined as the works required to replace existing assets or facilities with assets or facilities of equivalent capacity or performance capability. Where renewal is undertaken, provision may be made to provide the modern engineering equivalent replacement asset (MEERA) and the estimate of gross replacement cost calculated accordingly.

Renewal under the MEERA may address functional improvements and network deficiencies as part of the work. For example, where an existing toilet block is to be renewed within the existing footprint, the new toilet block may incorporate an accessible toilet that did not exist previously as required under the *Disability Inclusion Act 2014* (NSW).

Council should include that proportion of costs attributable to renewing an upgraded asset. For example, where a road upgrade is undertaken to provide additional lanes to address capacity, the road pavement within the existing traffic lanes is renewed as part of the works. The component of costs attributable to the renewal of the existing lanes should be included in the actual expenditure to determine the Asset Renewal Ratio.

Where major rehabilitation works are undertaken to restore an asset to an accepted condition, such works may also be included in the renewal expenditure, provided these works extend the life of the asset beyond the previously predicted useful life. Otherwise, these costs should be incorporated within the asset maintenance costs and ratio calculations.

Examples of renewals and major rehabilitation works are provided in Appendix B.

Renewal is defined by the *International Infrastructure Management Manual* (IIMM) as 'works to upgrade, refurbish or replace existing facilities with facilities of equivalent capacity or performance capability'.

Major rehabilitation is expenditure on an existing asset, or on replacing an existing asset, that returns the service capability of the asset to that which it had originally and extends its useful life. It is periodically required expenditure and relatively large (material) in value compared with the value of the components or sub-components of the asset being renewed. As it reinstates existing service capacity it generally has no impact on revenue but may reduce future operating and maintenance expenditure if completed at the optimum time.

Enhancement means to 'heighten, intensify or improve the facilities.'

Estimated cost to bring to a satisfactory standard (BTS): 'Satisfactory' is defined as 'affording satisfaction; fulfilling all demands or requirements' *(Macquarie Dictionary)*. The estimated cost to bring assets to a satisfactory standard is the amount of money that is required to be spent on an asset that is currently not at the condition determined to be satisfactory by the council and community. This should not include any planned enhancements. However, it is noted that, in practical terms, the asset will be renewed to condition 1 at the time of work.

Unless the council has undertaken consultation with its community and has agreed to a condition level for council's assets, the BTS should be measured against the condition 2 rating of 'Good' as stated in the *Integrated Planning and Reporting Manual* for local government in NSW.

Net carrying value is the amount at which an asset is recognised after deducting any accumulated depreciation and accumulated impairment losses (AASB116).

Gross replacement cost: The cost the entity would incur to acquire the asset on the reporting date. The cost is measured with reference to the lowest cost at which the gross future economic benefits could be obtained in the normal course of business, or the minimum it would cost to replace/construct the existing asset with a technologically modern equivalent new asset (not a second hand one) with the same economic benefits (gross service potential) as the existing asset had when it was new, allowing for any differences in the quantity and quality of output and in operating costs.

Useful life is determined in accordance with AASB116.

Asset condition assessment is the process of continuous or periodic inspection, assessment, measurement and interpretation of the data to indicate the condition of a specific asset, so as to determine the need for some preventative or remedial action.

Councils are strongly encouraged to use the asset condition rankings as set out below. Asset conditions are assessed using a scale of '1' to '5'. Assets in condition '1' are considered to be 'excellent' with no work required beyond normal maintenance, while assets in condition '5' are considered to be 'very poor', with urgent renewal or upgrading required. Asset conditions should be based on up-to-date asset condition assessments.

This assessment should apply to each class of assets or asset components identified by council.

Level	Condition	Description
1	Excellent/Very Good	New or as new condition. Only planned cyclic inspection and routine maintenance required.
2	Good	Good condition with minor defects. Minor routine maintenance along with planned cyclic inspection and maintenance.
3	Satisfactory/Average	Average/fair condition with some significant defects requiring regular maintenance on top of planned cyclic inspections and maintenance.
4	Poor	Poor condition with asset requiring significant renewal/ rehabilitation, or higher levels of inspection and substantial maintenance to keep the asset serviceable.
5	Very Poor	Very poor condition. Asset physically unsound and/or beyond rehabilitation. Renewal required.

Required maintenance

Council shall include those costs identified in the asset management plans (AMPs) (for the reporting period) of routine activities that should be undertaken to sustain the asset in a functional state, ensuring the asset reaches the predicted useful life, excluding rehabilitation or renewal. This shall include:

- routine inspection and maintenance activities and minor rehabilitation required to achieve the predicted useful life of the asset or asset component
- operating expenses required to keep the asset, or asset components, in a functional state for community use.

These costs should include resources such as manpower, energy, chemicals and materials. Examples of maintenance activities and costs to be included in the ratio are provided in Appendix A.

Major rehabilitation or renewal activities should be excluded (see below). These costs should be included in the Asset Renewal Ratio. The cost of staffing a facility for the business purpose should be excluded (e.g. staffing of a tourist information centre for the business of providing tourist information services should be excluded).

Actual maintenance

Councils shall include the actual expenditure incurred (for the reporting period) of routine activities undertaken to sustain the asset in a functional state and to ensure the asset reaches the predicted useful life, excluding rehabilitation or renewal. This shall include:

- routine inspection and maintenance activities and minor rehabilitation required to achieve the predicted useful life of the asset or asset component
- operating expenses required to keep the asset, or asset component, in a functional state for community use.

These costs should include resources such as manpower, energy, chemicals and materials. Examples of maintenance activities and costs to be included under this column are provided in Appendix A.

Major rehabilitation or renewal activities should be excluded (see below). These costs should be included in the Asset Renewal Ratio. The cost of staffing a facility for the business purpose should also be excluded (e.g. staffing of a tourist information centre for the business of providing tourist information services should be excluded).

Reason for inclusion of maintenance and operation expenses

The inclusion of maintenance and operation together provides the total cost to keep the asset in a functional state in service to the community, and to ensure the asset reaches the predicted useful life.

Many 'operational' tasks are considered by councils to be 'maintenance'. For instance, mowing an oval – if this were not done, as well as being unusable, the field would develop a wide range of grasses and weeds requiring other works to bring it back to a reasonable condition. It makes no sense to exclude the mowing costs. Another example often talked about is the activity of roadside mowing (another is street sweeping). Without this, the road becomes unsafe, woody species invade the area and begin to impact the road surfacing, pavement, pipes and other components. Clearly, such activities are part of 'maintaining' the road and keeping it in a functional state and ensuring the asset reaches its useful life.

The key element though is that the inclusion of such items significantly reduces the wide-ranging inconsistencies seen previously in completing the report on infrastructure assets, bringing improved repeatability and comparability.

The inclusion of 'operational' costs such as power, water and other consumables also allows review of the potential areas of significant savings in running costs that might be re-directed to 'maintenance'.

In addition, this approach provides a far better reflection of the actual costs of looking after the asset and is thus far more transparent to the community.

Cost to bring to the agreed level of service set by council

The cost to bring to level of service is an estimate of the cost to renew or rehabilitate existing assets that have reached the condition-based intervention level adopted by council. This figure is a snapshot at a point in time, being the end of the financial year. To provide flexibility to adequately manage external changes in condition (such as the impacts of varying climatic conditions) and allow good project planning, it is anticipated that councils will have works outstanding to bring to level of service as a normal part of managing infrastructure assets on behalf of the community.

The cost to bring to accepted level of service provides a basis for councils to reset the 10-year long-term financial plan (LTFP). The LTFP and the council's asset management plans and strategies lay out how it intends to address the cost to bring asset condition to level of service using methods including, but not limited to:

- fully funding the annual infrastructure cycle for short-lived assets to progressively lower the cost to bring to level of service with time
- budgeting for capital works to renew or rehabilitate long-lived assets, typically prioritised taking account of risk
- prudent use of loan funding
- partnering with government through grants to fund infrastructure replacement/upgrades
- adjusting the level of service in consultation with the community
- strategic review of assets to optimise the asset portfolio under council's control, including clustering and/or removal of some assets
- use of new technologies, e.g. sewer relining
- implementation of risk-management strategies (e.g. higher inspection regimes)
- improved asset management, e.g. improved data accuracy, condition assessment, etc.

In future long-term financial planning, the requirement to fund maintenance, operation and renewal of existing assets will need to be considered along with other demands to upgrade or provide new infrastructure to address functionality and capacity issues. These matters are beyond the scope of the Report on infrastructure assets.

The cost to bring asset condition to level of service shall be calculated based on the cost to renew or rehabilitate those existing assets, or asset components, that have reached the intervention level set by council, based on condition.

The cost will be based on calculating the estimated cost to undertake the work as it would be done. That is, if the proposed method of work involves a full renewal, then this should be included in the estimated cost. Where full renewal is undertaken, provision may be made to provide the modern engineering equivalent replacement asset and the estimate of cost calculated accordingly.

Each council will set their own intervention levels based on community needs, available funds, the council's risk appetite, and the whole-of-life costs of owning and/or managing the infrastructure assets under their control.

Councils may establish varying intervention levels for different infrastructure, or within infrastructure classes, based on an adopted hierarchy of assets. For instance, for a highly utilised public building or road, a council may choose to intervene earlier to maintain and/or renew an asset to provide a higher level of service. For a low-use asset, a council may choose to adopt a lower level of service.

In making decisions regarding intervention levels, councils should give consideration to matters including, but not limited to:

- the impacts on the whole-of-life costs of sustaining the asset, or asset component. In some cases, it may be cheaper in the long run to intervene more frequently than to allow an asset to fall into a condition requiring major works
- the risk to the community, safety, the environment, financial sustainability, and council's reputation
- the affordability of managing the overall suite of assets under council's control.

For example, regular resealing/resurfacing of a road protects the underlying road pavement from moisture intrusion, and also provides a safer driving surface for the community. Council may, however, provide a lower frequency of resealing/resurfacing to a quiet local street compared with a busy high-speed distributor road to effectively manage risk of pavement failure and provide for a safer road network.

This approach is one example of focusing resources on effectively managing the risk of asset failure, lowering the overall whole-of-life cost, and reducing the risk to the community.

Guidance on managing levels of service and assets in different classes can be found at the Institute of Public Works Engineering Australasia website (http://ipwea.org) and the NSW Roads & Transport Directorate website (https://ipweansw.org/roadsdirectorate/)

Infrastructure asset performance indicators

OLG requires a minimum number of prescribed indicators in relation to infrastructure asset management to be presented as follows and includes all asset classes identified in the report on infrastructure assets as at 30 June 2024 table above. The ratios are to be calculated using asset classes identified in the Report on Infrastructure Assets **only**. **Do not** include other asset classes identified in Infrastructure, Property, Plant & Equipment note.

Building and infrastructure renewal ratio

Purpose: To assess the rate at which these assets are being renewed against the rate at which they are depreciating. The benchmark is greater than 100%.

$$\frac{\textit{Asset renewals}}{\textit{Depreciation, amortisation and impairment}}$$

Infrastructure backlog ratio

Purpose: This ratio shows what proportion the infrastructure backlog is against the total value of a council's infrastructure. The benchmark is less than 2%.

$$\frac{\textit{Estimated cost to bring assets to a satisfactory condition}}{\textit{Carrying value of infrastructure, building, other structures and depreciable land improvement assets}}$$

Asset maintenance ratio (see actual maintenance and required maintenance definitions above and Appendix A)

Purpose: This ratio compares actual versus required annual asset maintenance. A ratio above 100% indicates that the council is investing enough funds that year to halt the infrastructure backlog from growing. The benchmark is greater than 100%.

$$\frac{\textit{Actual asset maintenance}}{\textit{Required asset maintenance}}$$

Cost to bring assets to agreed service level

Purpose: The ratio indicates proportion of the gross replacement cost of council assets that have reached the intervention level set by council based on the condition of the asset. This ratio is simply the sum of the outstanding renewal works, valued as the work will be undertaken, compared to the total replacement cost of council's assets.

This ratio provides a meaningful snapshot of the proportion of outstanding renewal works compared to the total suite of assets that council has under its care and stewardship. Council will need to make future budgeting decisions in relation to these outstanding works with those decisions likely to be prioritised in council's forward plans based on social, economic and environment factors, including risk to the community, council and/or the asset (or interdependent assets). Council should give consideration to social equity of service delivery in prioritising renewal works.

The use of the gross replacement cost as the denominator in this ratio provides a more stable measure over time and is easier for councils to calculate with greater consistency year to year.

The ratio below provides greater meaning to both infrastructure and finance teams within councils as it reflects the actual value of identified renewal works needing to be delivered in the future, calculated at a point in time, being the end of each financial year. The ratio allows the community to monitor short- and long-term trends in relation to a council's management of community infrastructure in a transparent manner.

This ratio has been introduced following industry feedback.

$$\frac{\textit{Estimated cost to bring assets to an agreed level of service set by council}}{\textit{Gross replacement cost}}$$

Infrastructure asset performance indicators by fund

General fund refers to all council activities except water and sewer services. Where councils do not have water and sewer funds, this is not required.

Appendix A – Examples of maintenance and operational activities

This appendix outlines those items to be included under the heading of 'maintenance' within the report on infrastructure assets.

For the purpose of the report on infrastructure assets, council shall include the budgeted and actual costs of routine activities undertaken and costs incurred to sustain the asset in a functional state. This shall include:

- routine maintenance activities and minor rehabilitation required to achieve the predicted useful life of the asset or asset component
- operating expenses required to keep the asset, or asset component, in a functional state for community use.

Maintenance

All routine activities necessary for retaining an asset as near as practicable to its original condition but excluding rehabilitation or renewal. Maintenance does not increase the service potential of the asset or keep it in its original condition. Rather, it slows down deterioration and delays the necessity of rehabilitation or renewal. Maintenance is a routine activity that ensures the asset reaches its useful life.

Operation

The active process of utilising an asset which will consume resources such as manpower, energy, chemicals and materials. This includes asset-related overheads but excludes depreciation and corporate/general overheads.

Major rehabilitation or renewal activities should be excluded. The cost of staffing a facility for its business purpose should also be excluded. For example, staffing of a tourist information centre for the business of providing tourist information services should be excluded.

Following are examples of maintenance and operational costs and activities applicable to all asset classes including cleaning, repair of surfaces (where the useful life remains unchanged), asset inspections, associated stores, wages and salaries of staff undertaking operation and maintenance, associated staff training, legal costs, printing and stationery, insurance costs, litter and dumped rubbish removal, waste costs.

The following are example maintenance and operational costs and activities specific to particular asset classes:

Table A1 – Examples of maintenance and operational activities

Asset class	Asset category	Example costs and activities
Buildings Other structures		Painting (minor), air conditioning, changing light fixtures, furniture repair, pest control, drain clearing, water and energy charges, elevator servicing, water and sewer charges, signage, security costs, mowing, waterproofing, fire protection servicing, parking, goods delivery, phone servicing, IT servicing.
Roads	Sealed roads	Pothole repair, crack sealing, heavy patching (where the useful life remains unchanged), street lighting energy and operating costs, pavement markings, guide posts, vegetation control, mowing, roadside slashing, table drain clearing, grading unsealed surfaces, enrichment seals, traffic control, signage (individual placement), kerb and gutter repair, footway and cycleway maintenance, street furniture repair, clearing subsoil drains, tree inspection and maintenance, grout injection for rigid pavements, paver sealing, utility works inspections, utility works and associated betterment (where useful life unchanged).
	Unsealed roads	
	Bridges	
	Other road assets including paths and carparks	
Water supply network		Routine activities such as water treatment plant operations, pump maintenance, water main and water service repairs, valve exercising, hydrant inspections, reservoir inspections, power consumption, chemical use, water meter reading, water sampling and testing, vegetation control/mowing, licensing, payment for bulk water supply.
Sewerage network		Routine activities such as sewage treatment plant operations, pump maintenance, sewer main repairs, clearing sewer chokes, pump station inspections/cleaning, CCTV sewer inspections, power consumption, chemical use, licensing, effluent re-use operations.
Stormwater drainage		CCTV, pipe blockage cleaning and associated disposal costs, pipe repair, tree root removal, relining (which does not extend useful life), repair pits and lids, clear/repair gross pollutant traps (GPTs), rain garden soil cleaning, rain garden plants, flood control device maintenance, traffic control, management of new connections.
Open space/ recreational assets	Swimming pools	Water cleaning costs, chemicals, membrane and tile repair, repairing pool devices, repairing gym equipment, repairing shade structures, kiosk operations, advertising signs, and all building asset class example costs and activities.

	Other open space/recreational assets	Mowing, signage, pest control, play/sports equipment repair, path, repair, lighting energy and operating costs, tree maintenance, garden plants, gardening, line marking, fence painting and repair, events management, furniture repairs, water feature servicing, footbridges repair. For associated kiosks, grandstands and amenities, refer to the 'Buildings' asset class; for associated drains, refer to the 'Stormwater drainage' asset class; for associated carparks, refer to the 'Roads' asset class.
Other infrastructure assets		Levee bank maintenance, jetty maintenance, waste facility maintenance, rock/sea walls.

Appendix B – Examples of renewal and rehabilitation costs and activities

Renewal

Works to replace existing assets or facilities with assets or facilities of equivalent capacity or performance capability. Renewal costs are based on the modern engineering equivalent asset. They include the disposal of the former asset and exclude upgrades. When an asset is partially renewed, if doing so extends the useful life it is considered renewal.

Rehabilitation

Works to rebuild or replace parts or components of an asset, to restore it to a required functional condition and extend its life, which may incorporate some modification. Rehabilitation generally involves repairing an asset to deliver its original level of service without resorting to significant upgrading or renewal, using available techniques and standards.

Following are example renewal and rehabilitation costs and activities that are applicable to all asset classes: design, planning approval, procurement costs, wages and salaries of staff completing renewal and rehabilitation, associated staff training, legal costs, printing and stationery, insurance costs, waste costs.

The following are example renewal and rehabilitation costs and activities specific to certain asset classes:

Table B1 – Examples of renewal and rehabilitation costs and activities

Asset class	Asset category	Example costs and activities
Buildings Other structures		Replacement of whole components such as windows, roofs, walls, doors, floor coverings, furniture, bathrooms, kitchens, stages, railings, fences, external landscape, electrical systems, security systems, air conditioners and elevators, painting of entire interior and exterior areas.
Roads	Sealed roads Unsealed roads Bridges Other road assets including pathways and carparks	Micro-surfacing, resealing, rejuvenation, stabilisation, asphalt, gravel re-sheeting, major rehabilitation (that extends the useful life compared to that predicted), guardrail replacement, signage group replacement, base/sub-base re-placement, full bridge component replacement, footway replacement, rigid pavement replacement, light pole replacement, kerb and gutter replacement, traffic island replacement, street furniture replacement.
Water supply network		Water treatment plant and pumping station augmentations, pump replacement, water main replacement, hydrant and valve replacement, telemetry and control system replacement, water meter replacement, reservoir replacement, major rehabilitation on structures/dams. (For buildings, roads and pathways, see elsewhere in this table).
Sewerage network		Sewage treatment plant and pumping station augmentations, pump replacement, sewer main replacement or relining, manhole replacement, telemetry and control system replacement, major rehabilitation on structures. (For buildings, roads and pathways, see elsewhere in this table).
Stormwater drainage		Replacement of whole components such as pipes, pits, GPTs, rain gardens, flood control monitoring and control equipment, pipe relining (that extends useful life).
Open space/recreational assets	Swimming pools	Replacement of whole components such as tiling, pumps, heating equipment, water treatment equipment, pool shells, sporting equipment, shade structures, furniture, paths. (For building structures, see the 'Buildings' asset class).
	Other open space/recreational assets	Replacement of whole components such as turf, field surfacing, trees, paths, lighting, recreational/sport facilities and fences. (For associated kiosks, grandstands and amenities, refer to the 'Buildings' asset class; for associated drains, refer to the 'Stormwater drainage' asset class; for associated carparks, refer to the 'Roads; asset class.)
Other infrastructure assets		Replacement of water harvesting and reticulation, energy reticulation, levees, transport interchanges, livestock sale yards, and waste handling facilities; creation of new air space in landfills.