Performance Measures for Financial Sustainability of Highway Assets

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CONTEXT
Sustainability of services should be key objective of every agency
Economic development

Social & Recreation Needs

Public health & safety

Highly interdependent
Municipal Government is asset rich and revenue poor
We manage more assets relative to income than other govts
We have a responsibility to current & future generations
You cannot manage long lived infrastructure from year to year.
You need a long term sustainable plan for your network & community
Sustainably managing your Network

ASSET MANAGEMENT PLAN
Services required, how provided & funds required

FINANCIAL & INFRASTRUCTURE SUSTAINABILITY

$$$$ How services are to be funded

LONG TERM FINANCIAL PLAN

IPWEA INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALIA
Sustainable Communities

3 KEY ELEMENTS

1. Stewardship: 
   Role of Elected Members

2. Managing existing as well as new: 
   Asset Management Planning

3. Essential part of Business: 
   Long Term Financial Planning
Sustainable Communities

3 KEY ELEMENTS

1. Stewardship: Role of Elected Members
2. Managing existing as well as new: Asset Management Planning
3. Essential part of Business: Long Term Financial Planning
Decaying infrastructure leaves a liability for future generations.
There is a need to comprehend the whole of life costs
What are the risks, priorities & funds required to sustainably manage infrastructure?
Make the link between levels of service and price.
Manage the gap
(not just funding the gap)

• Understanding impact new assets
• Better asset information
• Timely maintenance
• Improved work practices
• Disposal of assets
• Alternative service delivery
• Lower levels of service
• Innovative solutions
Move from annual budgeting to long term financial planning
Sustainable Communities

3 KEY ELEMENTS

1. Stewardship:  
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2. Managing existing as well as new:  
   Asset Management Planning

3. Essential part of Business:  
   Long Term Financial Planning
Engineers don’t understand
Accountants
Accountants don’t understand
Engineers
Accountants

Past Investments

Asset Consumption

Annual Depreciation Expense

Asset Managers

Future Investments

Asset Renewal

Renewal Cashflow Projections
Engineers & Accountants talking the same language
All singing from the same song book

Accounting for infrastructure can reflect the way we manage our assets

- Accrual Accounting
- CRC / Fair Value, not Historical cost
Use AMP & LTFP process to improve your asset register & financial statements
Assets recognised at component level
Consumption Phase 1

Assets recognised at component level
Assets recognised at component level

Consumption Phase 2

Future Economic Benefits (Service Potential)

Asset #3 Road Surface

Asset #2 Road Pavement

Asset #1 Earthworks/Formation

Asset #4 Surface Useful Life

Renewal

Upgrade

Asset #2 Pavement Useful Life

Asset #1 Earthworks/Formation Indefinite Useful Life (not depreciated)

Asset Life

Depreciating the Assets Phase II
Assets recognised at component level

Consumption Phase 3

Depreciating the Assets - Phase III
Assets recognised at component level

Segmentation

Intersection (Optional)

Urban block length (~200m)

Rural (~1-5 km)

Road Segment shown
Value assets to reflect how we manage.

Current replacement cost depends on replacement policies!
Value assets to reflect how we manage.

Take replacement policies into account.

Case 1
Replacement K&G with road pavement
Replacement cost $50/m

Case 2
Replacement in isolation
Replacement cost
K&G $80/m
Restoration $30/m $110/m
Value assets to reflect how we manage

Residual value has meaning in the field

Depreciable amount = current replacement cost – residual value

Useful Life

Carrying amount

Depreciable Amount

Cost or current cost

Residual Value

Pipeline lining

Road pavement recycling
Useful life is not a look up table

- Use best information available
- Experience with similar assets
- When will replacement / disposal appear in the Works Program?
Useful life is not a look up table

- Use best information available
- Experience with similar assets
- When will replacement / disposal appear in the Works Program?

• Condition / Functional
• Capacity and Utilisation
• Cost and efficiency
• Safety and compliance
• Location, Obsolescence
• Availability of funding, etc
Calculate accumulated depreciation, fair value & annual depreciation expense
Test for impairment & calculate loss
Sum the components

Document to substantiate & justify for audit
Use the data for asset renewal planning

Now

What do you need to spend? $ $

When you need to spend it? $

What do you need to spend? $ $

When you need to spend it? $

Cost or current cost

Useful Life

Age

Remaining Life

Residual Value

Zero Residual Value
Project capital renewal requirements

Adelaide City - Projected Capital Renewal Expenditure (Transport)
Sustainably managing your Network

ASSET MANAGEMENT PLAN
Services required, how provided & funds required

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Free download: www.ipwea.org.au/PracticeNotes
3 steps to ensure sustainable service levels

- develop plan
- frame strategy
- target indicators
Step 1. Develop 10yr long term financial plan
Accrual accounting principles importantly include depreciation
AM Plan projections minimising whole of life costs input into LTTP

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Expenditure Projections from Asset Management Plans

Valuation Projections from Asset Management Plans

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Your LTFFP will have a strategic focus

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where targeted performance is not projected to be achieved the plan should be revised

- Less 20pp
- Narrative overview
- Not too detailed
- Iterative process
- Year 0 Last FY
- Year 1 Budget
Document your key assumptions

- Rate of growth or decline
  - will impact operating revenue & expenditure
- Mandated or discretionary service levels
  - changes assumed
- Relative price variations over time
  - use trend estimates; focus major outlays
- Use of real (net of inflation) values
  - inter-year comparisons more meaningful
- Changes in revenue beyond your control
Step 2. Frame your plan within a clear financial strategy
Target small underlying operating surplus on average over time

Operating Result = Operating Revenue
Less Operating Expenditure

Include depreciation not Capital Outlays
Ongoing operating deficits imply running your assets down

- Taxes & charges less than cost of service
- Current policies & LOS unsustainable
Renewing or replacing ageing assets add little operating costs

- Acquiring new assets will!
- Depreciation not significantly different
- Operating & maintenance costs may decrease
3 steps to ensure sustainable service levels

develop plan

frame strategy

target indicators
Step 3. Monitor projections against target financial indicators
Monitor projections against target financial indicators:

- Revenue: $Y_1, x_1, x_2, x_3, x_{10}$
- Expenses: $Y_2, y_1, y_2, y_3, y_{10}$
- Capital Works: $Y_3, z_1, z_2, z_3, z_{10}$
- Avail/needed cash: $Y_4, a_1, a_2, a_3, a_{10}$
- Financial Perf Indicators: $Y_5, b_1, b_2, b_3, b_{10}$
- Financial Perf targets: $Y_6, c_1, c_2, c_3, c_{10}$

Where targeted performance is not projected to be achieved, the plan should be revised.
AIFMG’s recommend you monitor 8 financial indicators

1. Operating surplus
2. Operating surplus ratio
3. Net financial liabilities
4. Net financial liabilities ratio
5. Interest cover ratio
6. Asset sustainability ratio
7. Asset consumption ratio
8. Asset renewal funding ratio
AIFMG’s recommend you monitor 8 financial indicators

1. Operating surplus
2. Operating surplus ratio
3. Net financial liabilities
4. Net financial liabilities ratio
5. Interest cover ratio
6. Asset sustainability ratio
7. Asset consumption ratio
8. Asset renewal funding ratio
3 key financial indicators

1. Operating surplus ratio
   - % operating surplus/deficit varies from major controllable income source (operating income)

2. Net financial liabilities ratio
   - The significance of net amount owed (i.e., less money held, invested or owed to entity) compared with operating income

3. Asset sustainability ratio
   - Ratio asset replacement expenditure relative to depreciation; measures replacement rate
Step 3. Monitor projections against target financial indicators
Sustainability is maintaining financial capital and infrastructure capital over the long term.
Undertake sensitivity analysis of variation in assumptions & inputs.
Review & revise your plan annually
Manage the gap
(not just funding the gap)

• Understanding impact new assets
• Better asset information
• Timely maintenance
• Improved work practices
• Disposal of assets
• Alternative service delivery
• Lower levels of service
• Innovative solutions
You need long term plan to sustainably manage long lived infrastructure
Sustainable Communities

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   *Role of Elected Members*

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   *Asset Management Planning*

3. Essential part of Business:
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3 steps to ensure sustainable service levels

develop plan
frame strategy
target indicators
Ensuring adequate investment in community infrastructure
Sustainable infrastructure supporting viable communities
IPWEA resources to assist

www.ipwea.org.au/AM

• Community of Practice in AM
• IPWEA App
• Australian Infrastructure Financial Management Guidelines
• LTTP Practice Note (free download)