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**WANTED: MULTI-MILLION DOLLAR ASSET
MANAGERS**

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SUNDAY 5 — FRIDAY 10 OCTOBER 2003
WINDMILL MOTEL & RECEPTION CENTRE

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WANTED: MULTI-MILLION DOLLAR ASSET MANAGERS

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Abstract

Service levels define the performance of infrastructural assets as accepted by the community that uses them. Too many councils seem to avoid discussing levels of service with the community at large and simply deliver what they have always delivered.

So lets say we have agreed levels of service (and the cost of providing this) how are we going to ensure we can produce this on a long term sustainable basis? The average Council we deal with has infrastructural assets (Road, Parks, Drains, Property etc) valued in the hundreds of millions of dollars and very little useable information about most of them.

“One overview test is to determine whether the asset management function is isolated from operational issues.” If it isn't we usually find that any asset management work is left in the “I'll do it when I have time” file.

This paper will present an overview of how to provide highly productive Asset Management within a council environment.

Key Words: Asset Management; Service Levels; Infrastructure;

What is Infrastructure Asset Management?

Goal is to meet required level of service in the most cost-effective way through creation, acquisition, maintenance, operation, rehabilitation and disposal of assets to provide for present and future customers.

What is an Asset?

A physical component of a facility which has value, enables services to be provided and has an economic life of greater than 12 months.

Long term Sustainability

- How are we going to ensure we can produce agreed levels of service on a long-term sustainable basis?
- Average Council has infrastructural assets valued in at hundreds of millions of dollars

- But very little useable information about most of them
- Generally, very little attention is paid to the long term management of these community assets

Asset Management – How not to start

- Set up an 'Asset Management Working Party'
 - Does not know where to start so seeks more and more information and produces very little
- Purchase Asset Management software
 - Often not even taken out of the box because of lack of resources or data

Do you need to focus on Asset Management?

Key Questions:

- What is the maintenance spend) by asset class) compared to the asset value?

- What is the reactive maintenance spend compared to the programmed maintenance spend?
- What is the maintenance spend compared to the capital spend
- How has the asset condition changed over time?
- What budget allowances have been made in future maintenance plans for new assets?
- Are the causative asset linkages recognised, i.e. street tree plantings today will cause footpath deterioration in a few years, increased road sweeping/pit clearing, tree maintenance cost increases, drainage maintenance increases?
- Is there a sensible budget for renewals (e.g. bridges)?
- Have any criticality studies been completed?
- Are maintenance and capital budgets isolated or is there a transfer at the end of the year to balance the books?

Suggested strategic Approach – How to really get started

Governance

- Establish need for asset management
- Engage Councillors/Communities in process
- Restructure to enable Asset Management to operate

First priorities

- Undertake desktop network criticality study
- Develop risk analysis
- Develop critical data collection process
- Formulate critical Asset Management Plan including program and cost
- Finalise most critical operational and capital expenditure plans

How to work through strategies - Governance

Establish need for Asset management

- Meet community / customer expectations
- Ensure continuous availability of services

- Provide stable assets with secure and sustainable cash flow requirements
- Ensure integrity of total network
- Provide efficiency of spending (proactive vs. reactive maintenance, maintenance vs. renewal etc.)
- Enable management to plan resources effectively
- “To be able to leave this place in a better condition”

Engage Councillors / Communities in process

- Overview briefing of current situation including criticality study
- Levels of Service
 - Describe existing levels of service (in lay terms)
 - Determine desired levels of service (examples from real life)
 - Negotiate levels of service vs. cost implications
 - Agree levels of service
- Network Analysis
 - General arrangement
 - Breakdown of values of assets
 - Critical issues
- Financial Planning
 - Levels of service impacts
 - Demand impacts
 - Asset requirements
 - Expenditure analysis
 - Long term financial forecasts
- Often instituting asset management processes identifies significant increases in expenditure

Restructure to enable Asset Management to Operate

- Asset Management generally never takes priority when mixed with “Works” or operational areas
- Need to ensure AM skills are available to undertake AM
 - Adequate resourcing
 - Adequate skills and experience
 - Adequate systems
- Define roles clearly
 - “Works” staff do things right
 - Asset Management staff ensure right things are done
 - Asset Management Manager must have ability to ensure “Works” and Contractors do what’s needed
 - Design Services role will need to be examined

- IT Systems linkages will need review (data collection etc.)

How to work through strategies – First Priorities

Undertake criticality study (minimum cost)

- Broad network diagrams
- Identify critical network components
- Collect fundamental data on each component (physical, records or anecdotal)

Develop risk analysis

- Identify failure modes
- Assess the probability of failure
- Determine the consequences of failure
- Evaluate the risk cost (Sustainability / Contingency Plan)

Develop critical data collection process

- From risk analysis determine critical data
- Evaluate risk of data inaccuracy
- Determine increased data needs (items, accuracy, cost and timing)
- Develop plan to deliver at most economical cost

Formulate Critical AMP

- Assume current levels of service OK
- Analyse minimum cost of securing network for acceptable risk profile
- Develop short-term cost estimates
- Develop programme
- Analyse physical impact on network
- Finalise Critical AMP
- Prioritise actions / expenditure / programme
- Finalise financial plans and forecasts
- Finalise organisational change plans
- Determine physical works delivery strategies
- Develop presentation materials
- Engage Council in process

Suggested Strategic Approach – Steady State

- Develop overall Asset Management Planning strategies
- Develop and coordinate Asset Management Plan
- Review every year or two

Develop Asset Management Plan – Key Elements

- Knowledge of assets owned (including location)
- Knowledge of physical condition of assets
- Knowledge of levels of service required by customers
- Knowledge of asset performance and reliability
- Knowledge of asset utilisation and capacity
- Knowledge of asset value
- Ability to predict future demand for service
- Ability to predict the failure modes and estimates time of failure of assets
- Ability to determine the likelihood and consequences (risk) associated with the different failure modes
- Ability to analyse alternative treatment options (including non-asset solutions)
- Ability to rank the treatment options available
- Ability to prioritise treatment options
- Ability to optimise maintenance and operations activities
- Ability to prepare an Asset Management Plan that demonstrates the above activities

Gap Analysis Chart – Basic AM

Processes and Data, Information Systems, Organisation/People Issues, Commercial Issues

Asset Management Plans – Lessons Learnt

- Data collection methods can be simple
 - Review existing data in files
 - Get out those old consultants' reports
 - Talk to Works Unit staff regularly
 - Look at customer request systems reports
 - Put pins in maps
- Data collection needs to be controlled

- Use Works Unit to complete condition reports / location etc “on the job”
- Set very low price if paying for data collections and ensure prioritised
- Define tight scope of what data is required
- Data in the system is not an Asset Management Plan
- Engaging Councillors pays dividends
 - Asset Management Plan becomes policy
 - Restricts reactive work
 - Provides understanding to inform community sensibly
 - Focus of Councillors becomes more strategic
 - Increased spending on maintenance becomes “righteous cause”
- They will want to leave the Council in a better condition than they found it
- Non asset-based solutions are more easily justified
- Basic Asset Management is OK
 - Cost of advanced asset management is high unless basic AMP has been completed
 - Elements of advanced asset management can be used at basic level (e.g. ODM)
 - Failure modes are often not from natural causes
 - Asset Management Plans should be developed for all infrastructure assets (especially the hidden ones)

Author Biography



Malcolm is a Professional Engineer with extensive experience in top management in commercial and local government organisations. He has extensive experience in general and commercial management in large and small firms and has also owned and managed international contracting companies in private enterprise. Malcolm has provided and implemented innovative solutions for local government operational areas throughout New South Wales, Queensland and New Zealand and undertakes the business and strategic planning for the National Asset Management Steering Group (in New Zealand) for it's world-wide business.

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