Abstract
With an increase in community expectations and a desire to keep rate increases to a minimum, local government is struggling to continue to provide a broad range of services to the community. One of the challenges facing much of local government is to clearly define and articulate levels of service and the cost options available so that the community can make an informed decision on the levels of service that they receive and are prepared to pay for.

Much of the focus, particularly in high growth environments, is on delivering new projects and infrastructure (increasing the Level of Service), but little time is spent on defining and debating the current level of service. Consequently the renewal requirements of the existing infrastructure are generally overlooked at budget time in favour of new projects and infrastructure.

The challenge, therefore, is to document meaningful levels of service that cover all that customers expect and from which informed sustainable budget decisions can be made. This paper explores Maroochy Shire Council’s journey to define fully costed levels of service outlining the approach, the framework and real examples.

Key Words: Asset Management, Level of Service, Cost of Service, Star Rating, Service Output

Introduction
Asset management is fundamentally about delivering a defined level of service at the minimum lifecycle cost. An inherent problem with Local Government is that with the wide range of services that are being provided, it is difficult to gain a complete understanding or definition of these services, let alone understand the level to which we are providing them. Approximately 85% of Local Government total budget is spent on infrastructure, including both the direct and overhead costs of the organisation.

All too often we see headlines in the newspaper outlining big spending from Local Government, the State, etc, in new infrastructure.

What about the existing infrastructure? We only see these stories when infrastructure starts failing. How is the existing infrastructure being managed?

The dilemma for Local Government is that the community is looking for increased services with little or no rate increases.

This leaves the Council struggling to find the appropriate dollars required to deliver these services. With the focus from politicians being on the delivery of new infrastructure, the renewal element is generally overlooked in favour of a new community building, rather than investing back into the delivery of the existing. While there is a strong focus on growth in many parts of Australia, this is only a minor part of the bigger picture of becoming financially sustainable.

In Queensland, we have the Local Government reform process underway. If we look at the drivers for this reform, much of it is about improving the service provision to the community so that we can remain sustainable.
Service Definition

More often than not in Local Government, we tend to focus on what we do, rather than what we provide to the community.

In many cases, service provision is actually a by-product of what we set out to do. To overcome this problem and to provide a framework in which LoS can be clearly defined, we must first be clear on the services that we do provide to our communities.

To do this, we must step out of the organisation and place ourselves into the mindset of the community, or ratepayer.

Traditionally, Local Government focus on the activity, ie, how many times per week do we collect the bins, how big is the pothole before it needs repairing. The need to fix the pothole is just a response to a service failure, the road is not delivering the service that is required of it.

The challenge is to clearly define the service, in customer terms (not technical jargon), that the ratepayer/community receives. It is generally assumed that we know what we provide, but has never been clearly defined.

Our service definitions were built from our original asset hierarchy, which originally grouped assets into like areas. We then questioned and challenged as to “why does the asset exist” and “what service does it provide to the community”?

To confirm the services, guidelines from the Department of Finance & Administration have been used to guide and review the definitions. These guidelines identify a number of key criteria for defining the services provided by an agency local government:

- be chosen for their expected effective contribution to the specified outcome;
- be expressed in terms of what it is (nouns or noun phrases) rather than how it is performed (verbs);
- be within the control of the agency, whether through direct delivery or contractual arrangements with third parties;
- identify what government is paying for, including being measurable in terms of price, quantity and quality be amenable to comparison between actual or potential suppliers (especially through price analysis);
- collectively cover all of the agency’s activities, including overheads or shared resources allocated across outputs or output groups; and specified so that the agency’s organisational structure and management systems can be mapped to its outputs (in practice this may be achieved over time).

Using this criteria and linking back to the Asset hierarchy, (which is commonly used for structuring data sets for collection and reporting information for decision making), allows local government to gather improved asset data not only for assets, but for the real service being provided through the infrastructure.

This then provides a top to bottom approach to the delivery of service and allows outcomes to be linked to outputs, which is linked to inputs, ie, resources.

In addition to the direct services being provided by local government, there are a number of shared services supporting each of the outputs. These shared services include things like finance, governance, fleet & plant and customer service. The costs from the indirect services are generally reallocated across the organisation using a variety of models and add cost to the delivery of the outputs.
Levels of Service (LoS)
It is important to clearly define levels of service to inform customers of the proposed level of service to be offered, and to define strategies in order to deliver this LoS in the most cost-effective manner.

While it is important to focus on the proposed level of service, it is more critical to understand the current level being delivered and to understand and address the gap between the current and proposed LoS. How can we improve something if we don’t know the level we are currently providing?

Unfortunately, with many strategic planning documents defining proposed levels of service, the focus is always on new works and projects being funded using all of the available Capital.

Once service outputs are clearly defining the local government, we can now begin to define the level of service being provided. While it is not clearly identified in this definition, it should be noted that it is important that the required levels of service should be defined at the service level rather than the activity level, to allow an analysis of the most cost-effective delivery manner to occur.

While there are a number of sources that define how to apply the LoS methodology, including defining customers, core values, customer and technical LoS, the application of this methodology has not provided Local Government with a tool that can be used to clearly articulate the LoS in terms that helps the community / ratepayer understand the value of the service that they are receiving.

By applying the simple criteria of quality, quantity, location and time bound for each of the identified services, the levels of service can be clearly articulated.

It most cases it was difficult to define the quality of the infrastructure being provided in terms that can be simply defined. For roads, we found that we have a very good rating methodology through a Pavement Management System, but this meant little in terms of the customer. For public toilets, we know the condition of the infrastructure, but were unsure if this satisfies the expectations of the community. To simplify the quality measurement process, a star rating was developed for public toilets.

Star ratings are widely used in the accommodation industry and use quite complex criteria to provide a simple rating on a 1-5 scale; 5 being best, and 1 being the lowest.

This process is useful where there are interrelated factors that apply to infrastructure, including recreation parks, streetscapes, roads, libraries (most, if not all services).

Advantages of the process are:

- The repeatability of the rating
- Simplify complex criteria into a simple rating scale
- Ability to compare the rating of one site to another
- Allow value judgements to be made on the LoS being provided

Star Rating Examples

Public Toilets

*Step 1* - Identify criteria that applies to the service.

*Step 2* - For each of the criteria, identify the importance of the element using a weighting from 1-5.

*Step 3* - For each public toilet, perform an assessment using each of the criteria on a 1-5 scale, then calculate a score for each element by multiplying the score by the weighting.

*Step 4* - Total the weighting and score columns and divide the score by the weighting to generate the Star rating for the public toilets.
For public toilet #1

<table>
<thead>
<tr>
<th>Element</th>
<th>Weighting</th>
<th>Rating</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weather protection</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Security/CPTED</td>
<td>2</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>5</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>Level of internal finish</td>
<td>3</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>Ventilation</td>
<td>4</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Lighting</td>
<td>1</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Site accessibility</td>
<td>3</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Network fit</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Proximity</td>
<td>3</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Design compatibility</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Capacity / space</td>
<td>5</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>Availability</td>
<td>4</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Design features internal</td>
<td>5</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>Design features external</td>
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<tr>
<td>Condition external</td>
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<td>3</td>
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</tr>
<tr>
<td>Water usage</td>
<td>3</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Energy consumption</td>
<td>3</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>56</td>
<td></td>
<td>194</td>
</tr>
</tbody>
</table>

Star Rating: 3.5

Therefore our star rating for this site is 3.5

**Cost of Service (CoS)**

CoS is the annual recurrent expenditure required to continue to provide the service at the current level. The Cost of service is an accumulation of all elements of the asset lifecycle, including operations, maintenance, depreciation and overheads.

Renewals and investment in the infrastructure (capital) are excluded from the calculation to avoid duplication, as the depreciation is already included.

Capital investment dollar this year, equates to depreciation in future years.

If we consider capital in the context of asset management, this equates to either the renewal or creation of new infrastructure, ie, they both increase the level of service whether through an increase in quality of the service or in the quantity (new assets).

If we take the example of public toilets, we provide 88 toilets across the Shire. We are currently providing them at an average star rating of 2.7. The cost to provide this service at this level is $x or $x/no ratepayers / year.

To maintain the current quality of the service, we need to continue to provide funds for operations (cleaning) and for regular maintenance. Where the quality of the service needs to be lifted, say to a 3.5 star rating, we should consider the best mix of funding to achieve this. Do we provide more maintenance funds or should be utilise a proportion of capital to renew or replace some of the tiring infrastructure?

**The Cost of Service Calculation**

Total Operational Expenditure / Number of Rateable Properties

The operational expenditure includes operations, maintenance costs, depreciation and management overheads. Note that this does not include capital works. While capital is treated as an expense in that year, it is expensed over time through the depreciation, which is the amount that we charge the customer.

The cost of service per ratepayer is calculated as the annual expenditure, less any external contributions or subsidies towards the service divided by the number of ratepayers.

By understanding the cost of service per ratepayer, a value judgement can be made on the services that we are receiving as
ratepayers, ie, public toilets currently cost us $15 per ratepayer / year.

**How Have We Performed Over Time?**
With the focus of elected members on providing more and more infrastructure, the quality of the existing infrastructure has slowly decreased in many areas. Generally, when new infrastructure is constructed it is to a high level of quality. Over time the quality of the infrastructure deteriorates due to age in many cases but also due to an increase in community expectations. In the case of public toilets, what was once a 4 star rating, may now only be 2 star, due to changes in design for security and access, construction materials and the need for water efficiencies. This results in infrastructure requiring renewal well before the useful life of the infrastructure has been reached.

**Conclusion**
So what does all this mean?
Through better definition of our services we know:

- What we provide to the community.
- What it costs to consistently provide these services to the community.
- We know that we cannot continue to build new without understanding the impact on the existing.

In reality, it means decision time. What can we afford to deliver, not just construction, but the overall level of service? By defining the level of service being provided, we are forcing our elected members to make informed decisions and be held accountable to the people in the community.

**References**

**Biography**
Adrian Duff is the Asset Management Coordinator for Maroochy Shire Council and has been in role for the past 12 years. In this current role, Adrian is working closely with five senior Asset Managers, to develop fully costed levels of service and options for all infrastructure based services provided by Council.

Adrian has also gained experience in developing and implementing asset management plans for a wide range of asset groups across the organisation, in line with the International Infrastructure Management Manual. He also has considerable experience in implementation of Council current Asset Management Information System, “Maximo” and has similar experience in developing job costing principles during implementation of Council finance system “Finance One”.

Originally employed as a cadet engineer with Council, he has gained a wide range of experience across all asset groups, including roads & stormwater, water supply and sewerage, fleet, buildings and facilities.