Bega Valley infrastructure costs study

Final report

Bega Valley Shire Council

May 2013

SGS Economics & Planning

Independent insight.

SGS Economics and Planning Pty Ltd
ACN 007 437 729
www.sgsep.com.au
Offices in Canberra, Hobart, Melbourne, Sydney

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

EXECUTIVE SUMMARY

Bega Valley Shire Council engaged SGS Economics & Planning to conduct a study of infrastructure contribution costs and their impact on development feasibility in the Bega Valley Shire LGA.

A key component of the study was the inclusion of an external stakeholder workshop (including landowners, developers and infrastructure providers) to identify and discuss issues relevant to the feasibility of development.

Contribution plans

There are a number of Council plans requiring contributions towards the provision of infrastructure from development.

The first of these is section 94 Contributions Plan (s.94 of the *EPA Act 1979*), which allows for levying of contributions as part of development consent to fund local infrastructure and services required as a result of new development. There are currently 11 section 94 plans applying in the Bega Valley Shire LGA. The charge generally ranges from $3,000 to $8,000 per dwelling or equivalent tenement (ET).

The second of these are plans prepared under section 64 of the *Local Government Act 1993* (which refers to section 306 of the *Water Management Act 2000), which* enables a local council to levy developer charges for water supply, sewerage and stormwater. Section 64 allows upfront charges to be established that are levied to recover part of the infrastructure costs incurred by Council in servicing new developments or in servicing additions/changes to existing development. Currently, the charge in the Bega Valley Shire LGA is approximately $12,000 per ET for sewerage and $9,000 per ET for water supply.

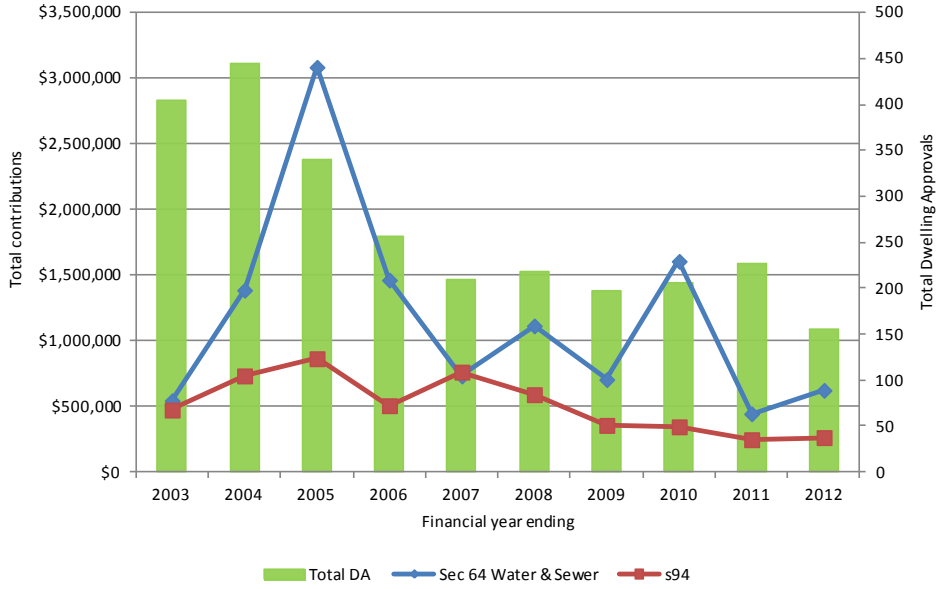
Draft section 94 and 94A plans (levy based on a fixed percentage of development cost) for the BVSC was drafted in November 2012 and is yet to be adopted. The s94 charges range from approximately $3000 to $9,000 per dwelling depending on the type of development. The proposed s94A levies are 0.5 percent of the value of development for developments between $100,000 and $200,000 and 1 percent for developments with a value greater than $200,000.

Development trends

Section 94 and 64 revenues have declined in line with the fall in dwelling approvals. Given the difference in per tenement charge, total section 64 revenue is generally higher than Section 94. Section 94 revenue has declined since 2007 while s64 has only experienced a moderate decline.

This is shown in the figure below.

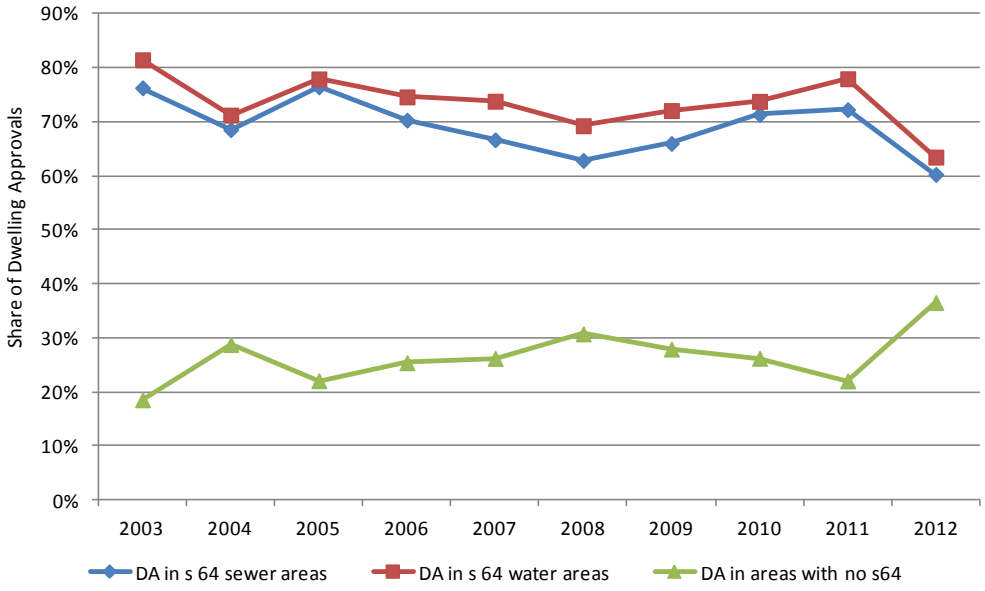
FIGURE SECTION 64 AND 94 REVENUE, AND DWELLING APPROVALS



Source: SGS, 2013; based on DA and revenue data provided by BVSC.

The majority of dwelling approvals occur in areas covered by s64 plans. However, the share of dwelling approvals in areas outside the coverage of s64 plans has increased from 20 percent to nearly 30 percent of dwelling approvals since 2005. Dwelling growth patterns in water supply zones (covered by s64 plans) in the 2006 to 2011 period (1.3 percent per annum) has been higher than that in the preceding five-year period 2001-2006 (-0.2 percent). To a large extent, market forces have been driving dwelling growth and that there does not appear to be a discernible pattern indicating that s64 contributions have had a substantial impact on this pattern.

FIGURE SHARE OF TOTAL DWELLING APPROVALS BY PLAN COVERAGE



Source: SGS, 2013; based on DA and revenue data provided by BVSC.
Notes: Dwelling approvals in Mirador are included in Merimbula locality, and Tathra River estate is part of Tathra locality.

Comparative analysis

Combined infrastructure contribution charges (s94 and s64) in the Bega Valley Shire were compared to those in Eurobodalla, Forster, Shoalhaven, Wagga Wagga, and Tamworth. It was found that rates are similar to those in coastal areas such as Eurobodalla and Shoalhaven but higher than inland centres such as Tamworth and Wagga.

However, Bega Valley Shire LGA has higher water and sewer headwork charges than the comparison LGAs. When compared to all Council in NSW, the Shire has the second highest water charges and one of the highest sewer charges. The median typical developer charge was $5,200 per ET for water supply and $4,500 per ET for sewerage - totaling $9,700 per ET.

Stakeholder input

A workshop was undertaken with a range of key stakeholders to facilitate a sensitivity analysis. The workshop participants were either developers, worked in the construction industry or were major property owners. The workshop:

- Assessed seven case study areas including the appropriateness of these sites, development potential and likely products
- Reviewed the feasibility model assumptions, and
- Provided feedback on infrastructure contributions and cost of infrastructure provision.

The workshop discussed issues seen by participants as impacting development in the area. Participants identified that key issues that could be impacting on development feasibility were s94 and s64 charges, credit conditions, low growth, high construction costs and delays in approvals and resulting holding costs. The workshop participants identified an equal weighting for these issues and that broader conditions could impact on specific sites.

Feasibility analysis

Two types of feasibility modelling were undertaken for this study: feasibility of residential development, and feasibility of subdivision. Details of potential residential development sites were provided by the Council for feasibility testing. The case studies cover typical product, and geography types within the LGA.

TABLE 1. RESIDENTIAL DEVELOPMENT CASE STUDIES

	Village - Cobargo	Coastal town - Merimbula	Inland town - Bega	Rural - Griegs Flat	Rural res - Tarraganda
Village	Property Cobargo				
Town - infill		Property Fishpen	Property Bega		
Town - greenfield		Property Merimbula	Property Glen Mia		
Rural				Property Griegs Flat	
Rural residential					Property Tarraganda

The feasibility ratios for all residential case studies were negative. This suggests that the proposed residential development on these sites is not feasible. To illustrate the impact of altering s64 charges, SGS tested the impact of altering the s64 charge on the residual land value model (RLV) of each case study. Altering the s64 charge would have no impact on the overall feasibility of the chosen case studies since the RLVs are negative even without s64 charge. This suggests that residential feasibility is impacted more by demand side (for example inadequate growth to allow for a higher price to be charged) and supply side (for example high construction costs or credit conditions) factors than by infrastructure charges.

Stakeholder input on per square metre construction costs, and higher sales prices were incorporated into a second round of feasibility testing for residential development. The results from the baseline

modelling were robust to changes to these key assumptions. That is, the case study sites were not feasible, reaffirming that s64 contribution levels do not have a sizeable impact on overall feasibility.

TABLE 2. IMPACT OF ALTERING S64 ON RESIDENTIAL: BASELINE RESULTS

	Cobargo	Merimbula		Bega		Griegs Flat	Tarraganda
RLV (Rev - Costs) with:	Property Cobargo	Property Fishpen	Property Merimbula	Property Bega	Property Glen Mia	Property Griegs Flat	Property Tarraganda
Current s64	-$324,450	-$506,360	-$190,414	-$348,927	-$234,279	-$153,469	-$184,052
Half of current s64	-$313,511	-$496,380	-$190,414	-$338,367	-$234,279	-$153,469	-$184,052
No s64	-$302,572	-$486,400	-$190,414	-$327,807	-$234,279	-$153,469	-$184,052

Source: SGS, (2013).

Following are the case studies that were considered in the subdivision feasibility assessment:

- Property Glen Mia (sub-divided in 2003, and consists of 138 lots), and
- Property Tura Breach (sub-divided in 2010, and consists of 4 lots).

Modelling of the subdivision case studies indicate that they were not feasible under current conditions. This is in large part due to costs associated with the sub-division process, and (in contrast to the results from residential development) infrastructure contributions. Section 64 charges respectively make up approximately 17 and 23 percent of the total cost of subdivision of these two sites, and as such, drive up costs in a substantive manner.

To illustrate the impact of altering s64 charges, SGS tested the impact of altering the charge on each case study. It is clear that altering the s64 charge would have a sizeable impact on the feasibility of the chosen case studies. Halving the current section 64 charges would make the Tura Beach sub-division feasible and the Glen Mia sub-division a more attractive development proposition (albeit at a lower minimum profit margin). Sensitivity testing of this result was conducted by incorporating stakeholder input. The results remain consistent, indicating that the baseline assumptions are robust.

TABLE 3. IMPACT OF ALTERING S64 CONTRIBUTIONS: BASELINE RESULTS

	Tura Beach	Glen Mia
Land sale profit with:	Property	Property
Current s64	-$669	-$20,076
Half of current s64	$22,789	-$9,137
No s64	$33,564	$1,802

Source: SGS, (2013).

Conclusions

This study finds that s64 has very little impact on residential development. Analysis suggests that residential feasibility is impacted more by demand side (inadequate growth to be able to charge a higher price) and supply side (high construction costs, credit conditions) factors than by infrastructure charges. As such, it is unlikely that any reduction in the s64 charge would result in residential development becoming feasible.

Modelling of the sub-division case studies indicate that they are not feasible under current conditions. This is in large part due to costs associated with the sub-division process and the level of infrastructure contributions. Section 64 charges make up a large proportion (17 to 23 percent) of the total cost of sub-division, and as such, impact on feasibility in a substantive manner.

1 INTRODUCTION

Bega Valley Shire Council engaged SGS Economics & Planning to conduct a study of infrastructure costs and their impact on development feasibility in the Bega Valley local government area. A key component of the study has been to engage with external stakeholders (including landowners, developers as well as infrastructure providers), to identify and discuss issues relevant to the feasibility of development. This report outlines the findings arising from this analysis and consultations.

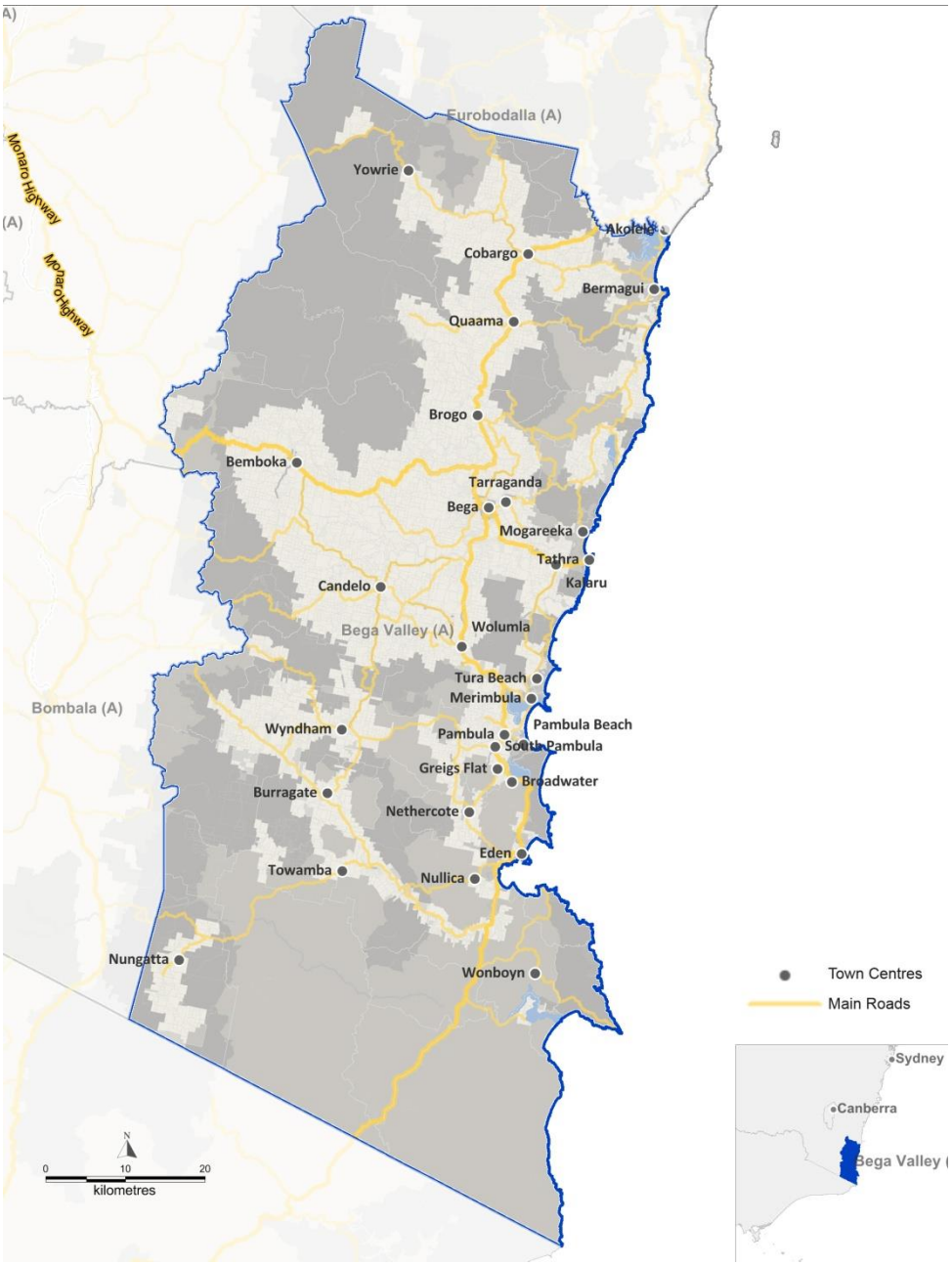
There were a number of issues regarding the current s.64 and s.94 plans raised at a Council Extraordinary Meeting in August 2012 (on the applicability of s.94 and s.64 charges). The issues raised can be summarised as follows:

- The strategic and policy position of the DSP to assume new developments generate load on the existing water and sewer systems, and therefore should contribute contributions and/or new infrastructure to augment those systems.
- The strategic and policy position of the DSP to assign all of those costs to developers
- The legal position regarding whether Water and Sewer Funds cannot 'donate or waive' charges, other than by compensatory contribution from the (Council) General Fund
- The modelled rate of population growth, compared to actual, and opportunities to defer capital works and thus cap or reduce s.64 charges
- The expansion of DSP catchments to reflect LEP urban zones
- The 'price competitiveness' of BVSC headwork charges compared to other Local Water Utilities
- The impact on headwork contributions or water and sewer rates, should community infrastructure projects be excluded, and
- The relative impact of combined s64 and s94 contributions on development activity.

The report recommended that Section 64 charges be levied in accordance with current policy, until revised Strategic Business Plan (SBP) and Development Servicing Plans (DSP) are fully considered by the community and adopted by Council.

The Council commissioned SGS Economics and Planning to investigate some of the key issues raised at the extraordinary meeting. In particular, the impact of Section 64 contributions on development feasibility, a comparison of Bega Valley charges against comparable LGAs, and strategic policy issues around infrastructure contributions. The figure below identifies the key towns and villages in the Shire that are part of this study.

FIGURE 1. BEGA VALLEY SHIRE AND ITS KEY AREAS



Source: SGS (2013).

The report is set out as follows:

1. **Contribution plans**: this section reviews current, and draft plans, and their applicability to different areas.

2. **Development trends**: this section conducts an analysis of current contributions revenue, and dwelling approvals dwelling growth trends.

3. **Comparative analysis**: this section compares contribution charges in Bega Valley LGA to comparable LGAs, as well as NSW. The impact of cross subsidisation is also discussed.

4. **Stakeholder input**: this section details information gathered from the external stakeholder workshop.

5. **Feasibility analysis**: this section outlines the baseline feasibility modelling assumptions and the results for both residential and sub-division feasibility. Sensitivity analysis has been conducted by incorporating input from the stakeholder workshop. The impact of Section 64 contributions is also tested.

6. **Conclusion**: this section outlines key observations and issues.

2 CONTRIBUTION PLANS

2.1 Section 94 (EPA Act) and s.64 (LG Act) contributions plans

Current Section 94 Plans

A Section 94 Contributions Plan (s.94 of the EPA Act 1979) is a mechanism for levying development contributions to fund local infrastructure and services that are required as a result of new development. Under an s.94 Plan there is a requirement to demonstrate the demand from development for the proposed infrastructure and facilities. A contribution is then imposed as a condition of development consent.

There are currently 11 Section 94 plans applying in the Bega Valley Shire LGA:

1. Existing Rural Roads[1]
2. Car parking
3. Recreation Facilities and Public Reserves
4. Old Wallagoot Road, Kalaru
5. Tuross Street and Lane, Bermagui
6. Bald Hills Road, Bald Hills
7. Lochiel Road, Nethercote
8. Narrawa Place, Jellat
9. Strudwicks Road, Bermagui
10. Roads, Water and Sewer Prospect Estate, South Pambula, and
11. George Street and Lane, Bermagui.

The contributions for each plan, indexed to $2011/12 are outlined the following table. Section 94 contributions generally appear to be lower in most areas, with higher contributions relating to Strudwicks Road Portion 140.

TABLE 4. CONTRIBUTIONS BY S.94 PLAN (2011/12 DOLLARS)

Plan	Section 94 contribution (per dwelling/lot)
Existing rural roads	$1,060-$5,658
Recreation Facilities and Public Reserves	$628
Old Wallagoot Road	$2,818
Tuross Street and Lane	$8,461
Bald Hills Road	$7,760
Lochiel Road	$7,380
Narrawa Place	$7,246
Strudwicks Road - Alexander Drive	$16,961
Strudwicks Road - Engstrom Close	$1,683
Strudwicks Road Portion 140	$29,117
Prospect Estate	$5,264
George Street and Lane - Northern side	$7,174
George Street and Lane - Southern Side	$3,557

Source: Based on BVSC plans, compiled and indexed by SGS, 2013.

[1] Applies to all lands within the Bega Valley Shire zoned 1(a), 1(c), 1(f), 2(f), 7(d), 7(f1) under Bega Valley LEP 2002, unless exempted by an area specific contributions plan.

The coverage and type of infrastructure outlined in each plan is indicated in the following table. Most plans apply to a particular area based on a common road with works covering road upgrades.

TABLE 5. INFRASTRUCTURE AND COVERAGE BY S94 PLAN

Plan	Coverage	Type of infrastructure
Existing Rural Roads	This Plan applies to all lands within the Shire of Bega Valley zoned: - Rural 1(a) (General Rural) - Rural 1(c) (Rural Small Holdings) - Rural 1(f) (Forestry) - 2(f) (Future Urban) - 7(d) (Environmental Protection) - 7(f1) (Coastal Lands Protection) under Bega Valley Local Environmental Plan 2002	Improvements to existing rural roads
Car parking	Centres and all residential and tourist accommodation development in all zones of the Shire	Car parks
Recreation Facilities and Public Reserves	Public Reserve Acquisition and Recreational Facility Contributions for: Residential Subdivision Attached Dual Occupancy Multi Unit Housing Retirement Villages Tourism and Motels Serviced Apartments Cabins Camp sites, short & long term sites (caravan parks)	Recreation Facilities and Public Reserves
Old Wallagoot Road, Kalaru	Old Wallagoot Road, Kalaru	Upgrading of Old Wallagoot Road, Kalaru
Tuross Street and Lane, Bermagui	Tuross Street and Lane, Bermagui	Upgrading roads
Bald Hills Road	applies to land in the Bald Hills	Upgrading of Bald Hills Road
Lochiel Road, Nethercote	Lochiel Road, Nethercote	Upgrading of a section of Nethercote and Back Creek Roads
Narrawa Place, Jellat	Narrawa Place, Jellat	Upgrading of Narrawa Place
Strudwicks Road, Bermagui	Strudwicks Road, Bermagui	Roads
Prospect Estate, South Pambula	Prospect Estate, South Pambula	Water, sewer and roads
George Street and Lane, Bermagui	George Street and Lane, Bermagui	To provide lane widening for the George Street Laneway to facilitate a two-way bitumen sealed public road with kerb and gutter

Source: Based on BVSC plans, compiled by SGS, 2013.

Current Section 64 Plans

Section 64 of the *Local Government Act 1993* enables a local council to levy developer charges for water supply, sewerage and stormwater. This power derives from a cross-reference in that Act to Section 306 of the *Water Management Act 2000.*

Section 64 (LG Act) allows for establishment of a developer charge. These are upfront charges, levied to recover part of the infrastructure costs incurred by Council in servicing new developments, or additions/changes to existing developments. Similar to s.94 contributions, s.64 contributions are underpinned by the nexus principle. Developer charges are intended serve two related functions:

- Funding for infrastructure required for new development or growth, and
- Pricing signals regarding the actual cost of development.

There are currently two Section 64 plans applying in the Bega Valley Shire LGA:

1. Development Servicing Plan for Sewerage - February 2006, and
2. Development Servicing Plan for Water Supply - February 2006.

The coverage of each development servicing plan (water and sewerage) is outlined in the following table. Each plan has a fixed charge for all areas covered. Broadly speaking, a charge is derived for each area by an assessment of the current capacity of the infrastructure in each area, future growth in each area, and the costs of upgrading to accommodate future demand under peak usage conditions. The area charges are then converted to a uniform charge by weighting each area's charge by its share of total population growth. A reduction amount is also included.

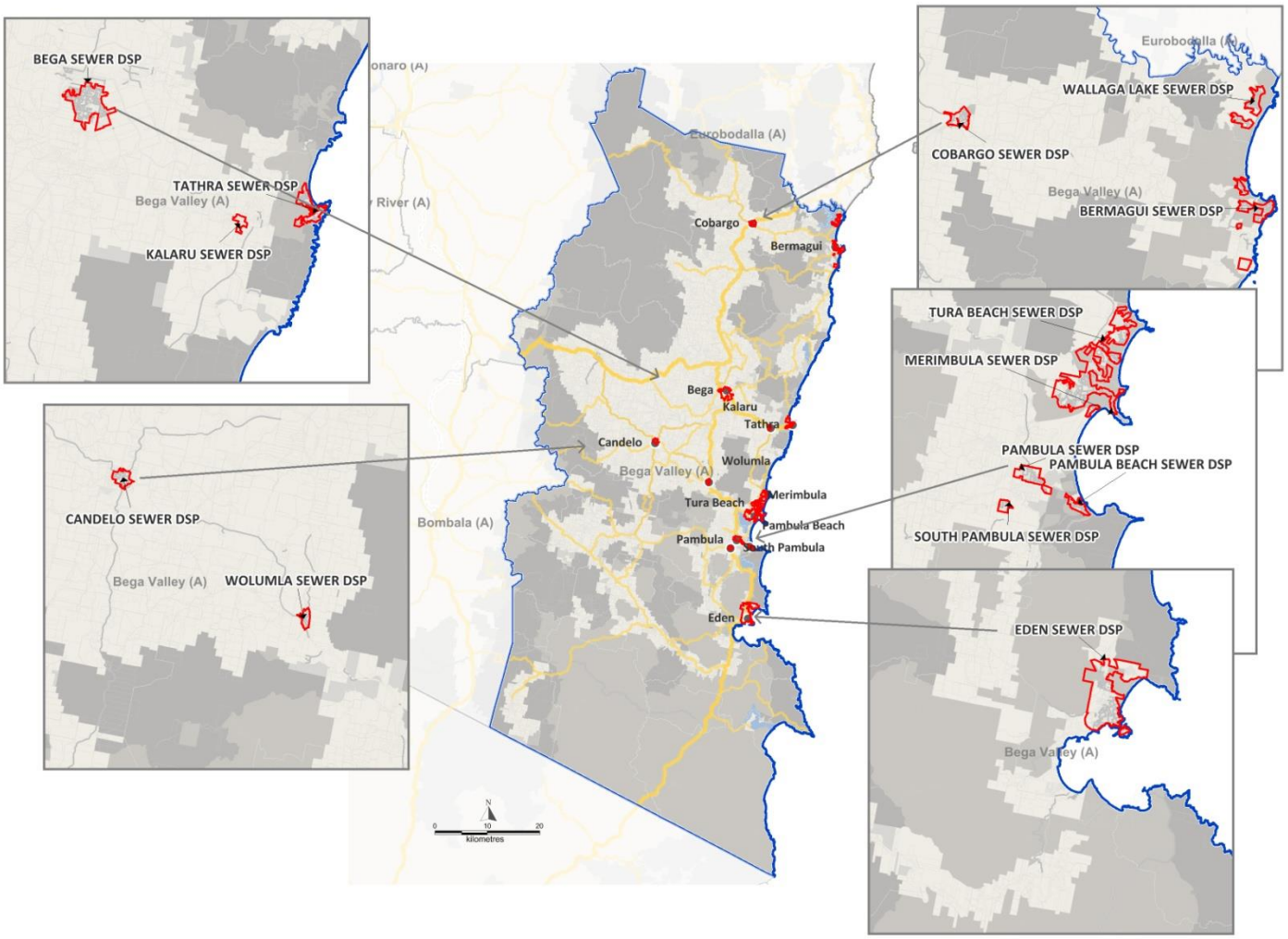
TABLE 6. CONTRIBUTIONS BY S.64 PLAN (2011/12 DOLLARS)

	Coverage	Charge per dwelling/lot
Sewerage	Cobargo, Candelo, Wolumla, Kalaru, Bega, Bermagui, Wallaga Lake, Eden, Merimbula, Pambula, South Pambula, Pambula Beach, Mirador, Tathra, Tura Beach	$12,000
Water	Candelo, Wolumla, Merimbula, Tura Beach, Pambula, Pambula Beach, South Pambula, Eden, Boydtown, Cobargo, Quaama, Bermagui, Wallaga Lake area, Akolele, Bega, Tarraganda, Kalaru, Tathra, Tathra River Estate, Mogareeka, Bemboka	$9,120

Source: BVSC DSP Sewerage, 2006; BVSC DSP Water, 2006; BVSC Fees and Charges 2013.

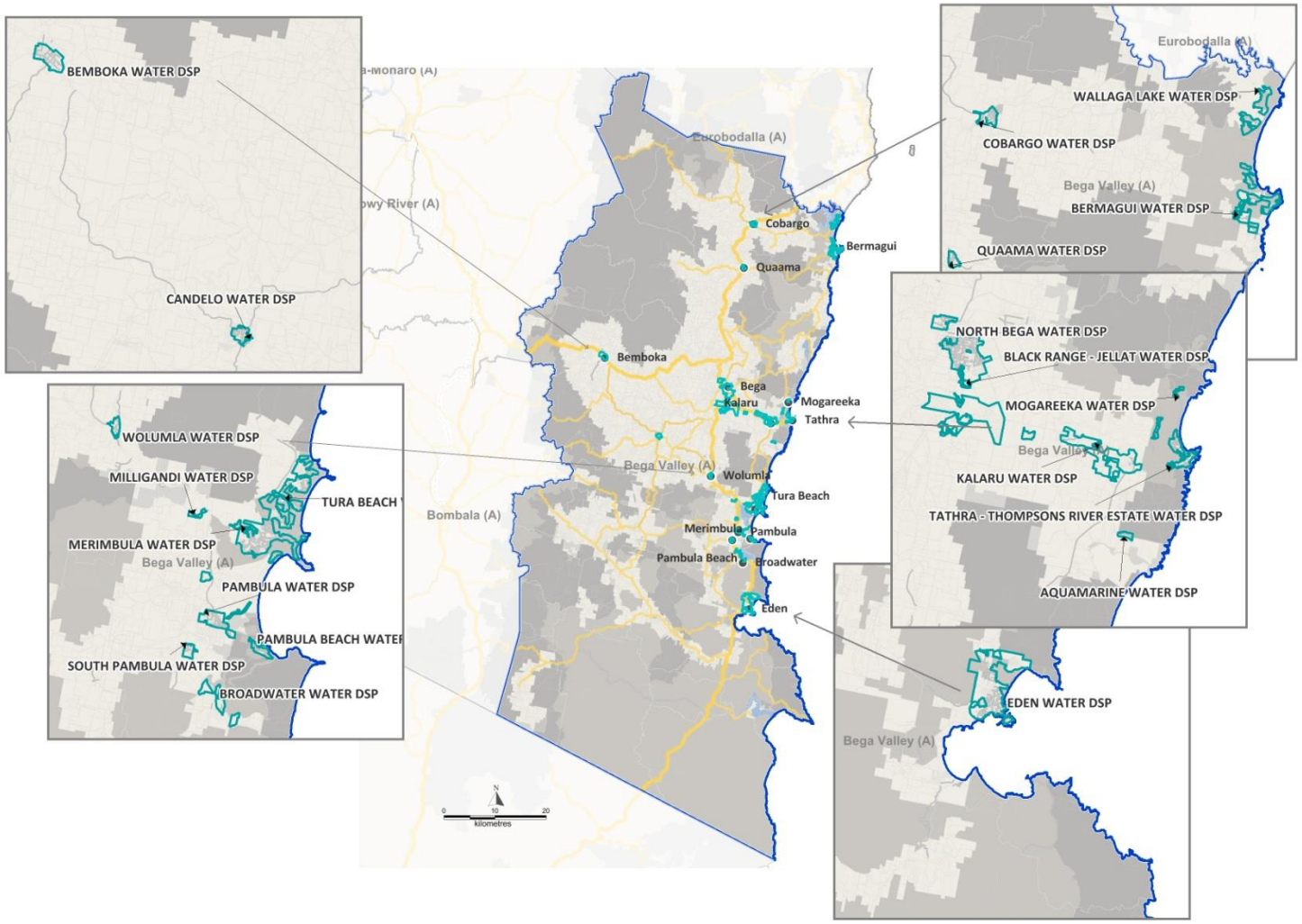
The following figures outline the extent of sewerage and water coverage in the Bega Valley Shire LGA.

FIGURE 2. MAP OF SEWERAGE SERVICES



Source: SGS, 2013, based on information provided by BVSC.

FIGURE 3. MAP OF WATER SUPPLY



Source: SGS, 2013, based on information provided by BVSC

2.2 Draft plans

A new Section 94 and 94A plan (indirect % levy) for the BVSC was drafted in November 2012, but is yet to be adopted. Under this draft Plan, section 94 contributions will apply to residential development that will or is likely to require the provision of or increase the demand for Local Infrastructure within the Bega Valley LGA. The rate of contribution will vary according to established occupancy rates for dwelling types but not the location of the development. The draft Plan proposes to apply Section 94A levies to all other development that is not subject to a section 94 contribution which has a proposed cost of development in excess of $100,000.

The types of Local Infrastructure covered by these draft plans are:

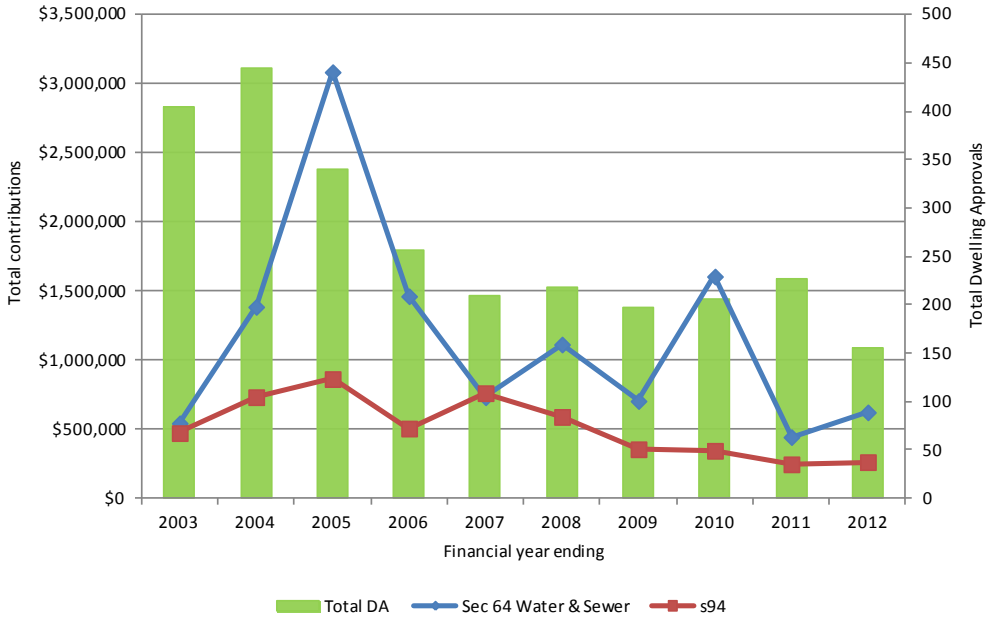
- Open space and recreation facilities, including new and upgraded parks, sports grounds, and other recreation areas
- Community facilities, including halls and expansions to existing library floor space
- Roads and traffic facilities, including upgrades to existing roads and intersections, and new or augmented roads, cycleways and pathways
- Streetscapes, including improved links and other works in town centres, and
- Land acquisitions.

3 DEVELOPMENT TRENDS

3.1 Dwelling approvals and contribution revenue

The following figure shows section 64 and section 94 contributions revenue (left axis), and dwelling approvals (right axis) in the Shire for financial years ending 2003 to 2012. While dwelling approvals were high in 2003 and 2004 (above 300 per annum), from 2006 onwards they have declined to more moderate levels (200 to 250 per annum). Section 94 and 64 revenues have declined in line with the fall in dwelling approvals. Given the difference in per tenement charge, total section 64 revenue is generally higher than Section 94. Moreover, while Section 94 revenue has consistently declined since 2007, section 64 has only experienced a moderate decline, albeit with a few peaks. These peaks are likely to be due to non-residential development, which is included in the total Section 64 and Section 94 shown below.

FIGURE 4. SECTION 64 AND 94 REVENUE, AND DWELLING APPROVALS

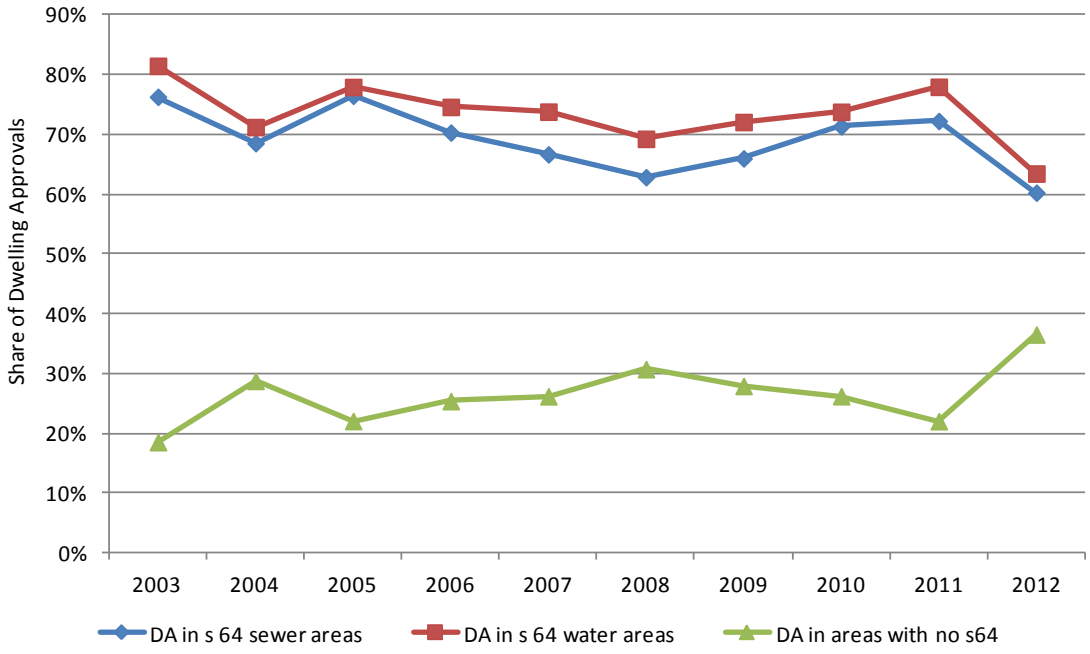


Source: SGS, 2013; based on DA and revenue data provided by BVSC.

The following figure disaggregates the above dwelling approvals by areas covered by section 64 (water and sewerage) plans and those that do not. As expected, overall, the majority of dwelling approvals occur in areas covered by section 64 plans.

However, except for an increase in the 2010 and 2011 periods, there has been a small decline in the share of dwelling approvals occurring in areas covered by the section 64 plans and a commensurate increase in the share of dwelling approvals in areas that are outside the plans. These areas are generally rural, rural residential and other villages that require on-site reticulation. The share of dwelling approvals in areas outside the coverage of section 64 plans has increased from low 20 percent to nearly 30 percent of dwelling approvals since 2005. This increase could be due to a combination of reasons, including (but not limited to) lifestyle factors, desire for land suitable for farming, amenity, and relative infeasibility of development possibly due to level of infrastructure charges.

FIGURE 5. SHARE OF TOTAL DWELLING APPROVALS BY PLAN COVERAGE



Source: SGS, 2013; based on DA and revenue data provided by BVSC.
Notes: Dwelling approvals in Mirador are included in Merimbula locality, and Tathra River estate is part of Tathra locality.

3.2 Dwelling growth in DSP zones

The following table shows occupied private dwellings (single detached, semi-detached, and flats) growth by Development Servicing Plant (DSP) zone. DSP zones line up with areas that require section 64 contributions for water supply. The top two DSP zones have been highlighted.

This analysis shows that dwelling growth in the 2006 to 2011 period (1.3 percent per annum) has been higher than that in the preceding five-year period (-0.2 percent). In particular, dwelling growth has been strong in the Tanta-Kiah DSP area (driven by Tura Beach, and Eden) over the last five years. Bermagui, and Black Range DSP zones have also experienced considerable dwelling growth in the same period. This trend suggests that there has been reasonable dwelling growth since the introduction of the new Section 64 plans in 2006. It is therefore plausible that, to a large extent, market forces have been driving dwelling growth, and that there does not appear to be a discernible pattern indicating that section 64 contributions have had a substantial impact on dwelling growth.

TABLE 7. OCCUPIED PRIVATE DWELLINGS BY WATER SUPPLY DSP ZONE

	2006	2007	2008	2009	2010	2011	Growth 2001-06	AAGR 2001-06	Growth 2006-11	AAGR 2006-11
Aquamarine	16	17	18	19	20	21	5	7.8%	5	5.6%
Bega	1,589	1,588	1,588	1,587	1,586	1,585	64	0.8%	-4	-0.1%
Black Range	153	162	171	179	188	197	34	5.2%	44	5.2%
Kalaru	147	153	158	164	169	175	22	3.3%	28	3.5%
Mogareeka	37	37	37	36	36	36	4	2.3%	-1	-0.5%
North Bega	43	43	43	43	43	43	-6	-2.7%	0	0.0%
Tarraganda	80	82	84	86	88	90	3	0.8%	10	2.4%
Tathra / TRE	647	653	659	665	671	677	-34	-1.0%	29	0.9%
Bega-Tathra sub-total	**2,712**	**2,734**	**2,756**	**2,779**	**2,801**	**2,823**	**92**	**0.7%**	**111**	**0.8%**
Bemboka sub-total	**104**	**107**	**109**	**112**	**114**	**117**	**17**	**3.6%**	**13**	**2.4%**
Bermagui	564	579	594	610	625	640	-39	-1.3%	76	2.6%
Cobargo	149	151	152	154	155	157	-1	-0.1%	8	1.1%
Quaama	74	74	74	74	74	74	5	1.4%	0	0.0%
Wallaga Lake + Akolele	230	227	224	221	218	215	14	1.3%	-15	-1.3%
Brogo-Bermagui sub-total	**1,017**	**1,031**	**1,045**	**1,058**	**1,072**	**1,086**	**-21**	**-0.4%**	**69**	**1.3%**
Boydtown	14	16	18	21	23	25	0	0.0%	11	12.3%
Broadwater	0	0	0	0	0	0	0	n.a.	0	n.a.
Candelo	138	140	143	145	148	150	1	0.1%	12	1.7%
Eden	1,093	1,115	1,136	1,158	1,180	1,202	-22	-0.4%	109	1.9%
Merimbula	1,493	1,510	1,528	1,545	1,562	1,579	-384	-4.5%	86	1.1%
Milligandi	0	0	0	0	0	0	0	n.a.	0	n.a.
Pambula Beach	319	321	322	324	326	327	-39	-2.3%	8	0.5%
Pambula	235	239	243	247	251	255	21	1.9%	20	1.7%
South Pambula	141	141	141	141	140	140	27	4.4%	-1	-0.2%
Tura Beach	1,102	1,133	1,164	1,196	1,227	1,258	204	4.2%	156	2.7%
Wolumla	139	137	136	135	134	132	19	2.9%	-6	-0.9%
Tanta-Kiah sub-total	**4,673**	**4,752**	**4,831**	**4,911**	**4,990**	**5,069**	**-173**	**-0.7%**	**396**	**1.6%**
Total	**8,506**	**8,624**	**8,742**	**8,859**	**8,977**	**9,095**	**-85**	**-0.2%**	**589**	**1.3%**

Source: Data compiled by NSW public works, Department of Finance and Services, and provided to SGS by BVSC.
Notes: Occupied private dwellings represent permanent residents. Sewerage DSP zones largely overlap with the above water-supply zones, and are excluded for the sake of brevity.

4 COMPARATIVE ANALYSIS

A comparative analysis of infrastructure charges of similar LGAs has been undertaken to understand the broader regional context of the application of infrastructure charges and to assist Council in the calculation of appropriate infrastructure charges.

The LGAs that have been chosen for the infrastructure framework analysis were chosen based on their similar 'water supply authority' status. The LGAs outlined in the May 2010 Newplan study were the primary focus for the analysis (Eurobodalla, Great Lakes, Kiama, Port Stephens, Wagga Wagga), with several other councils also outlined. New figures were obtained from the various councils where possible and where figures were not available they have been indexed from the Newplan study.

TABLE 8. S.94 AND S.64 CHARGES BY LGA

LGA	Water Headworks	Sewer Headworks	Storm water	Section 94	Total
Eurobodalla[2]					
Bateman's Bay/ Northern district	$10,701	$9,314		$4,569	$24,583
Moruya / Central district	$10,701	$9,314		$4,484	$24,499
Narooma / Southern district	$10,701	$9,314		$4,800	$24,815
Forster[3]	$5,618	$8,842		$2,407	$16,867
Tea Gardens	$5,618	$8,842		$2,407	$16,867
Kiama[4]				$3,280	
West Kiama	n.a.	n.a.		$4,533	$4,533
Northern Region	n.a.	n.a.		$446	$446
Southern Region	n.a.	n.a.		$730	$730
Cedar Ridge				$531	$531
Port Stephens[5]					
LGA Wide contribution	n.a.	n.a.		$13,027	$13,027
Shoalhaven					
Bomaderry	$6,578	$8,339		$11,181	$26,098
Vincentia	$6,578	$8,339		$7,582	$22,499
Wagga[6]					
Ashmont	$3,800	$2,215	$3,007	$6,679	$15,701
Bomen	$3,800	$2,215		$6,679	$12,694
Boorooma	$3,800	$2,215	$1,721	$13,837	$21,573
Boorooma - CSU	$3,800	$2,215		$6,679	$12,694
Bourkelands	$3,800	$2,215		$12,514	$18,529
Cartwrights Hill	$3,800	$2,215		$6,679	$12,694
Estella	$3,800	$2,215	$1,721	$13,818	$21,554

[2] Water and sewer headwork charges for Eurobodalla have been based on the Newplan study and indexed.

3 Water and sewer headwork and S94 charges for Great Lakes Council have been obtained from Newplan study have been indexed.

[4] Kiama Municipal Council's water and sewer provider is Sydney Water. In December 2008, the NSW Government abolished the levying of water charges for development. S94 charges have been obtained from Newplan study have been indexed.

[5] Port Stephens water and sewer provider is Hunter Water.

[6] Wagga water headworks charges are covered by Riverina Water

LGA	Water Headworks	Sewer Headworks	Storm water	Section 94	Total
Estella West	$3,800	$2,215		$16,218	$22,233
Forest Hill	$3,800	$2,215	$642	$10,423	$17,080
Forest Hill - RAAF	$3,800	$2,215		$10,423	$16,438
Gumly Gumly	$3,800	$2,215	$1,721	$12,822	$20,558
Glenfield Park	$3,800	$2,215	$3,007	$12,893	$21,915
Kapooka Military Area	$3,800	$2,215		$6,679	$12,694
Kooringal	$3,800	$2,215	$1,721	$6,679	$14,415
Lake Albert	$3,800	$2,215		$6,679	$12,694
Bega Valley Shire Council					
Existing Rural Roads	$12,000	$9,120		$1,060-$5,658	
Old Wallagoot Road	$12,000	$9,120		$2,818	$23,938
Tuross Street and Lane	$12,000	$9,120		$8,461	$29,581
Bald Hills Road	$12,000	$9,120		$7,760	$28,880
Lochiel Road	$12,000	$9,120		$7,380	$28,500
Narrawa Place	$12,000	$9,120		$7,246	$28,366
Strudwicks Road - Alexander Drive	$12,000	$9,120		$16,961	$38,081
Strudwicks Road - Engstrom Close	$12,000	$9,120		$1,683	$22,803
Strudwicks Road Portion 140	$12,000	$9,120		$29,117	$50,237
Prospect Estate	$12,000	$9,120		$5,264	$26,384
George Street and Lane - Northern side	$12,000	$9,120		$7,174	$28,294
George Street and Lane - Southern Side	$12,000	$9,120		$3,557	$24,677
Tamworth					
Tamworth	$4,271	$1,779		$5,326	$11,376
Manilla	$743	$743		$5,326	$6,812
Barraba	$1,448	$1,739		$5,326	$8,513
Hills Plain	$9,780	$3,806		$5,326	$18,912

Source: Compiled and indexed by SGS; based on data collected from the Newplan (2010) study, and various Council plans.

The approximate combined s.94 and s.64 rates for the study areas (where both are applicable) are outlined below:

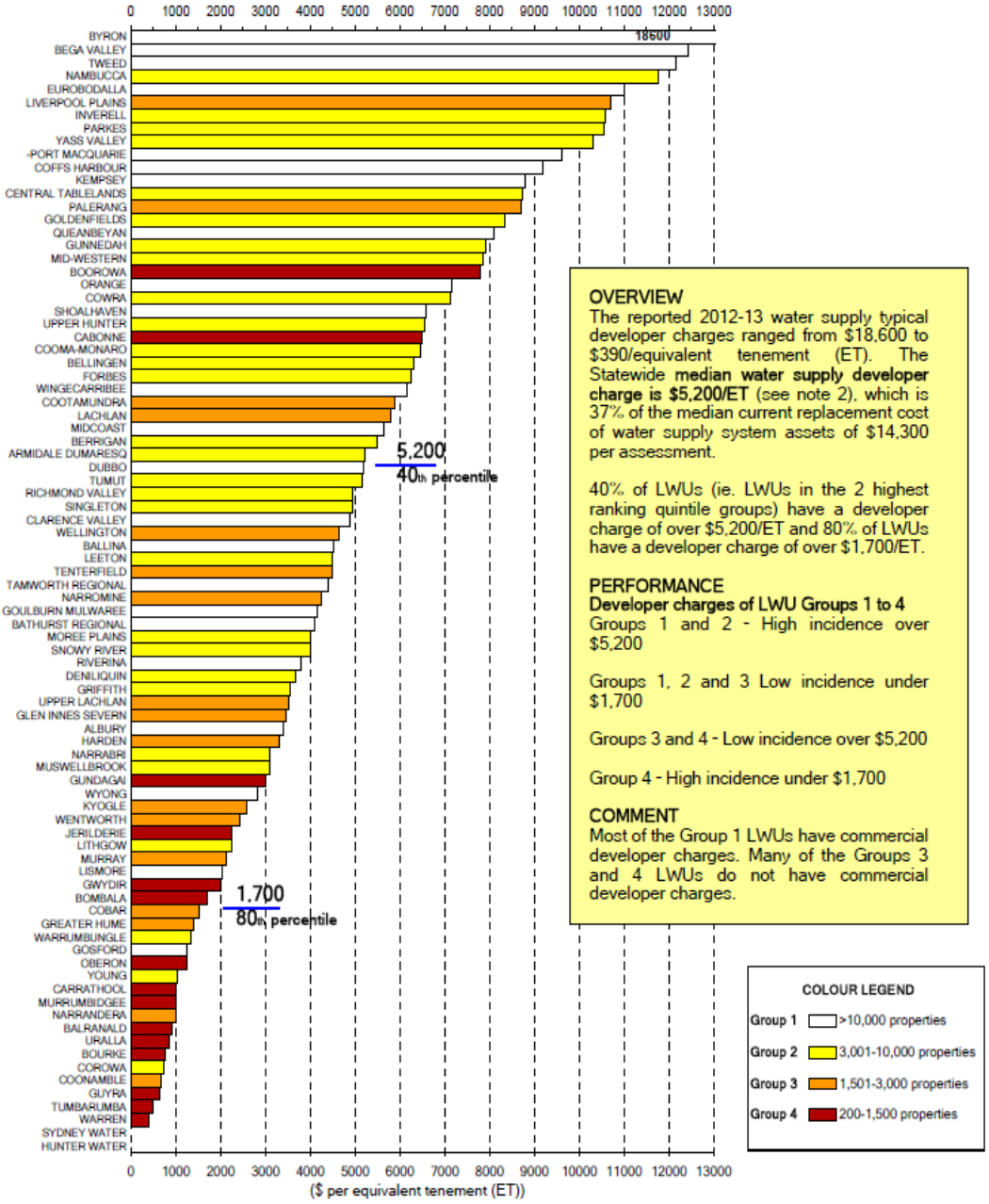
- Eurobodalla: $24,500
- Forster: $16,900
- Shoalhaven: $22,500 - $26,000
- Wagga: $12,700-$22,200
- Bega Valley Shire: $22,800-$50,200, and
- Tamworth: $6,812-$18,912.

For the most part, BVSC charges are between $20-30,000 with the exception of Strudwicks Road, which has a combined contributions rate of approximately $50,000 for one area in the plan. Generally however, BVSC rates are similar to those in coastal areas such as Eurobodalla and Shoalhaven but higher than inland centres such as Tamworth and Wagga. Kiama and Port Stephens have not been included as their water and sewer headwork rates are covered by Sydney Water and Hunter Water, respectively.

Bega Valley LGA has higher water and sewer headwork charges than the comparison LGAs. Indeed, according to the *NSW Water Supply and Sewerage: Performance Monitoring Report 2012-2013* it has the second highest water charge for any LWU (Figure 6) and one of the highest sewer charges (Figure 7).

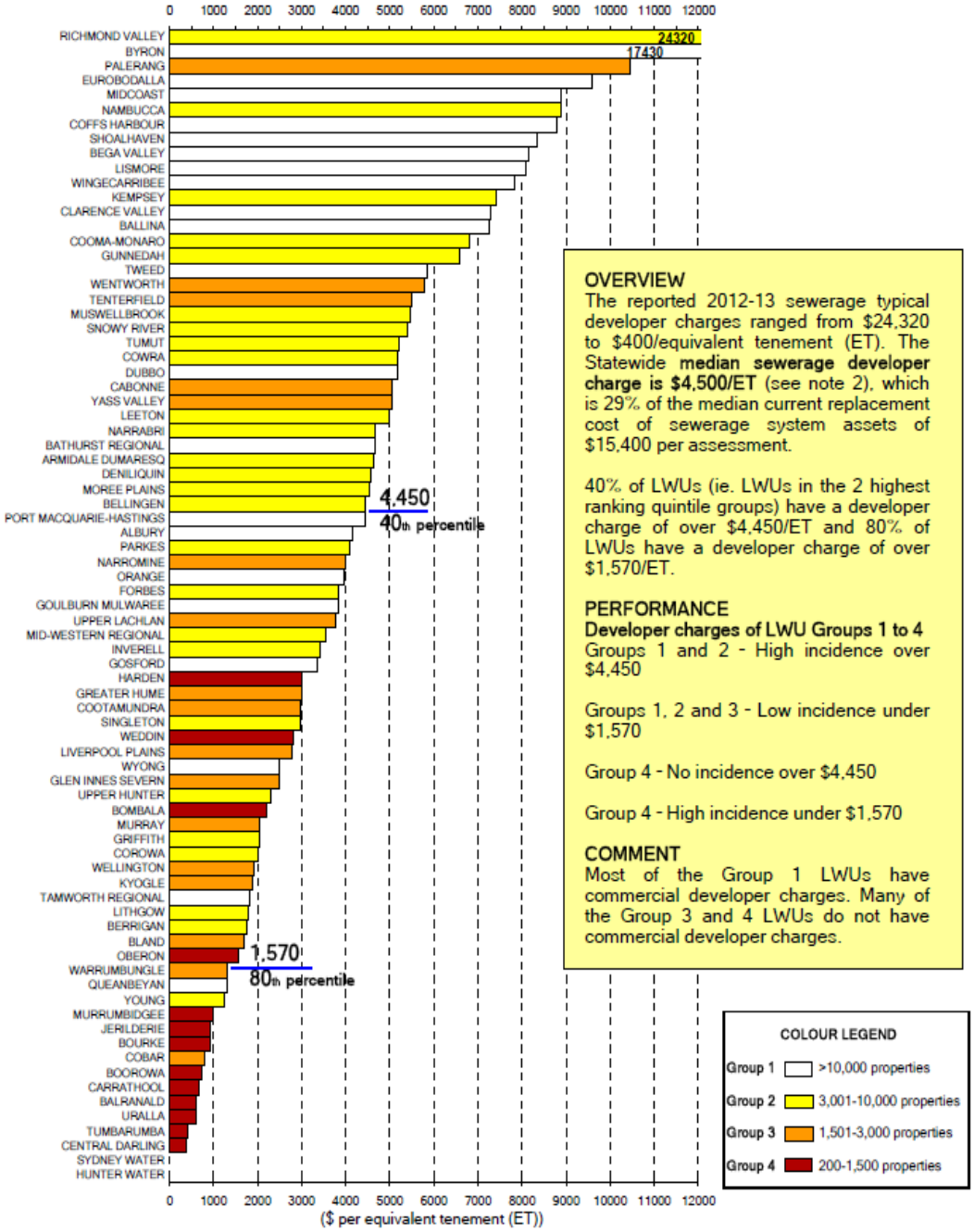
The median typical developer charge was $5,200/ET for water supply and $4,500 /ET for sewerage; totaling $9,700 per equivalent tenement. The median current replacement cost of system assets for water supply and sewerage was $14,300/ET and $15,400/ET, respectively. The typical developer charge for water supply and sewerage ($9,700) is 33% of the current replacement cost of system assets per assessment.

FIGURE 6. TYPICAL DEVELOPER CHARGES: WATER SUPPLY, 2012-13



Source: Office of Water, March 2012.

FIGURE 7. TYPICAL DEVELOPER CHARGES: SEWERAGE SUPPLY, 2012-13



Source: Office of Water, March 2012.

Cross-subsidy

There are two types of cross-subsidy in Section 64 Developer Services Plans, these include:

- Geographical subsidisation: The use of a fixed charge across the LGA effectively implies that some areas pay a higher amount than required, while some pay lower than required, and
- Reduction amount: cross-subsidy from the existing customers in the typical residential bill (based on the PV of the amount).

Geographical subsidisation

Bega Valley Shire Council currently has uniform capital charges for water and sewer across the LGA. The uniform amount is calculated by weighting the total capital charge for each area by its share of projected growth. This implies that in an instance that an area that requires expensive upgrades (likely to be a new growth area) also has a small share of the projected population growth; the uniform charge would be lower than the true cost of infrastructure required for that area. Conversely, areas with a larger share of projected population growth, and lower capital charge would be charged more than they should.

For instance, Wolumla with only two percent of projected population requires around $23,000 of sewerage infrastructure per tenement, yet is only charged around $9,000. In contrast, Merimbula/Pambula with 30 percent of projected population growth requires only $4,000 of sewerage infrastructure upgrades per tenement, yet is charged $5,000 more (see figure below).

FIGURE 8. SHARE OF TOTAL DWELLING APPROVALS BY PLAN COVERAGE

DSP	Area	Location	Capital Charge ($/ET)	DSP Area 1 (% of highest)	DSP Area 2 (% of highest)	DSP Area 3 (% of highest)	DSP Area 4 (% of highest)	DSP Area 5 (% of highest)	Proportion of Growth %	Additional charge for new assets	Total Capital Charge ($/ET)	DSP Capital Charge ($/ET)	Weighted Average Capital Charge ($/ET)
A	S8	Candelo	$36,017	100%					2%	$41	$36,058	$32,084	$1,289
	S10	Cobargo	$29,567	82%					2%	$65	$29,633		
B	S7	Wolumla	$22,691	63%	100%				3%	$90	$22,780	$22,780	$756
C	S9	Kalaru	$14,202		63%	100%			2%	$66	$14,268	$11,382	$2,310
	S1	Bermagui	$10,916			77%			18%	$67	$10,983		
D	S4	Tura Beach	$8,305			58%	100%		11%	$51	$8,355	$6,816	$3,980
	S3	Tathra	$7,391				89%		4%	$15	$7,406		
	S2	Bega	$6,806				82%		13%	$31	$6,837		
	S5	Merimbula /Pambula	$6,105				74%		30%	$45	$6,149		
E	S6	Eden	$3,676				44%	100%	14%	$40	$3,716	$3,716	$519
Weighted Average Capital Charge									100%	$510			**$8,639**

Source: BVSC, *Section 64 – Sewerage DSP*, 2006.

It is likely that if the true capital charges were to be charged (by a scheme of differential Section 64 charges) development would not be feasible in new areas. Given that the LGA is made up of villages and towns spread across a wide area, and with a relatively small size of population, it is challenging for the Council to take advantage of economies of scale. However, the impact of the geographic subsidisation needs to be recognised, and from a policy perspective the level of subsidy may be reconsidered by introducing differential contribution plans in line with the LEP. This would still allow for retention of some level of geographic subsidisation.

Reduction amount

This cross-subsidy is the difference between the annual bill with the calculated maximum developer charge and the proposed lower developer charge. Increasing the reduction amount is another mechanism for reducing the charged levied of development.

The process for calculating cross-subsidies, as outlined in the *Developer Charges Guidelines for Water Supply, Sewerage and Stormwater, 2012 Consultation Draft* is:

- Calculate the capital charge for each *service area*
- Agglomerate the appropriate *service areas* into DSP areas and calculate capital charge for each DSP area
- Calculate the maximum developer charge for DSP areas (Capital Charge – Reduction Amount), and
- If the LWU elects to levy less than the calculated maximum developer charge recalculate the developer charge with written down costs of pre-2012/13 assets.

An assessment of Wagga Wagga and Shoalhaven Regional Council's Section 64 calculations has been undertaken to ascertain the level of reduction amount in their plans.

Wagga Wagga

Riverina Water is the reticulated water authority for the Wagga Wagga LGA. The cross-subsidy for Riverina Water was derived by estimating the amount of servicing associated with future development and choosing the scenario that had the lowest amount. The future development projections included three different scenarios. The scenario with the lowest capital cost equated to $3800/ET and the highest was approximately twice this amount; indicating that the cross-subsidy in some areas is up to 50 percent. There are two charges applying to different size lots:

- 450-2000 square metres = $3,800/ET
- 2000 square metres plus = $4560/ET.

The City of Wagga Wagga controls the sewer and stormwater charges for the LGA. The sewerage service areas have been consolidated into a single DSP area and a uniform developer charge equivalent to the weighted average of the calculated charges has been adopted. Council levies developer charges equivalent to the weighted average developer charge. There is no cross-subsidy in place for storm water charges. There are four DSP areas with varying charges ranging from $207/ET to $3,007/ET.

Shoalhaven

Water charges are collected for three difference service areas in Shoalhaven LGA, which have been agglomerated into one DSP area. No reduction amount applies.

For the Sewer DSP, there are 12 different service areas. Where the capital charges for two or more service areas are within 30 percent, they are agglomerated into a single DSP. The weighted average capital charge is calculated on the proportion of growth in each DSP area. There is no cross-subsidy.

5 STAKEHOLDER INPUT

Two consultation workshops were held as part of this study. An external stakeholder workshop on Thursday 11 April 2013 and an internal workshop with Council staff on the Friday 12 April 2013. This section outlines details of the external workshop, and council responses to issues raised by external stakeholders.

5.1 Workshop

The following participants attended the workshop:

- Tim Samway - Linkwood Nowra
- Mark Nichols - Hotondo Homes
- Tony Gordon - Hotondo Homes
- Peter Flude - Eden Cove Development
- Michael Collins for Woodstock Contracting
- Chris Maxted - Ingow (briefed one-on-one after the workshop)
- David Sutherland – Paynter Dixon had to leave soon after the workshop commenced
- Angus Ramsay - RCL Group
- Sophie Thomson - Bega Valley Shire Council, and
- Elisabeth Slapp - Bega Valley Shire Council.

The workshop addressed the following:

- Case study areas including the appropriateness of these sites, development potential and likely products
- Review of feasibility model assumptions, and
- Feedback on infrastructure contributions and cost of infrastructure provision.

Seven preliminary case study areas were presented as part of the workshop to initiate discussion and gain an understanding as to whether the floor space and product types were appropriate.

TABLE 9. CASE STUDY AREAS

	Village - Cobargo	Coastal town - Merimbula	Inland town - Bega	Rural - Griegs Flat	Rural res - Tarraganda
Village	Property Cobargo				
Town - infill		Property Fishpen	Property Bega		
Town - greenfield		Property Merimbula	Property Glen Mia		
Town - greenfield plus subdivision		Property Merimbula[7]	Property Glen Mia		
Rural				Property Glen Mia	
Rural residential					Property Tarraganda

The attendees were asked to complete worksheets for each of the study areas with an understanding that they may be more knowledgeable on some questions as opposed to others. The summary of the worksheets can be found as an Appendix to the report. As part of this study, SGS is conducting two types of feasibility modelling – residential development feasibility, and sub-division feasibility. As a result, the questions to stakeholders were based along these lines. Following are the worksheets provided to attendees to gather information regarding residential development and sub-divisions in the LGA.

[7] Note that this case study was later replaced with the Tura Beach site as accurate data was not available for the Merimbula site. As indicated, the respondents did, however, provide input for the Merimbula site.

TABLE 10. RESIDENTIAL DEVELOPMENT QUESTION SHEET

	Cobargo	Merimbula		Bega		Griegs Flat	Tarraganda
	Property Cobargo	Property Fishpen	Property Merimbula	Property Bega	Property Glen Mia	Property Griegs Flat	Property Tarraganda
Product type	dwelling house	units (2 x 3br)	dwelling house	dual occupancy (2 x 3br)	dwelling house	dwelling house	Subdivision and dwelling house
Yield (number of dwellings)	1	2	1	2	1	1	1
Floorspace per dwelling (sqm)	250	180	250	180	250	250	250
Zoning	RU5 Village	R3 Medium Density Res	R3 Medium Density Res	R2 Low Density Res	R2 Low Density Res	RU2 Rural Landscape	R5 Large Lot Residential
How suitable is the product type?							
Low 0 to High 10							
How sufficient is the floorspace?							
Low 0 to High 10							
Best estimate of construction cost per sqm ($)							
Best estimate of total development cost ($)							
(excluding any development contributions or charges, but <u>including</u> add-on costs such as architect)							
Estimated sales price ($)							
Estimated profit margin							
(% of total development costs)							

TABLE 11. SUB-DIVISION (NO CONSTRUCTION) QUESTION SHEET

	Merimbula	Glen Mia
	Property	Property
Product type	subdivision	subdivision
Zoning	R3 Medium Density Res	R2 Low Density Res
Total area of mother lot	5.28Ha	38.06 Ha
Total area of sub division	752 sqm	873 sqm
Best estimate of costs relating to sub division ($)		
(excluding land purchase cost and any development contributions or charges, but <u>including</u> add-on costs such as service conduits, earthworks, etc)		
Estimated sale price of vacant sub-division ($)		
Estimated profit margin (% of land purchasing cost)		

5.2 Summary of external stakeholder issues

The following outlines the key issues impacting on development in the area as proposed by the workshop participants. The issues raised have been allocated relevant categories. Please note that some issues do related to other categories. .

Financial

- Construction costs are higher in Bega Valley Shire. At least up to 30% higher because of freight, volume of market and lack of competition.
- CPI is increasing, but land value growth is lower than CPI growth.
- Holding fees are a big impediment.
- Stamp duty is a large cost.
- Banks attitudes are difficult as they are not giving money to developers. Approval cannot be given at regional level they have to go to head office.
- Land tax is around 3% of VG land values. This is quite costly for developers.

Geography

- The geographical spread of the towns means that there is less opportunity to utilise economies of scale.
- Geographic subsidisation is a problem. Inland, built-up areas pay more than they should.

Council charges

- S94 and S64 are seen as too expensive. It was suggested that it they are in the top 3 in NSW.
- 25% plus of retail land values goes into S94 and S64 and this could be up to 45% for subdivision
- Recommend at least a 25% reduction in S64 but base this on the retail land value across the area so have greater reduction for some areas.
- Used to do CPI in Bega now charges very as per fees and charges annually which make it difficult to plan your costs.
- Prior to amalgamation Bega had no water meters but now they do and they have high S64 costs.
- 50% reduction in s64 would have a sizeable impact on coastal development, some impact on in-land, but not much impact elsewhere.

Council planning / process

- Delays in approvals. Accept that planning phase takes about 12 months but when this up to 18 months or 2 years and beyond then holding costs are too much.
- Need to balance costs with the LEP i.e. line up charges with where you want development to occur.
- Should consider staged development so that Council does not require full payment of S94 and S64 up front. Look at what Shoalhaven Council and Bathurst Council do.
- Shoalhaven Council doesn't require payment of S94 and S64 until start building.
- Number and depth of reports required for subdivisions is onerous but realise these are State government requirements. But this is hard for families wanting to subdivide for their family.

General comments

- Development in villages stopped when Council introduced s.64 charges.
- In early 90's Council didn't charge head work fees for a year to encourage development but developers had to start work in that year.
- Water and sewerage usage has declined (due to efficiencies), but the rate of s64 charge has increased.

- The attendees agreed that the following were the key issues identified as impacting on development: S94 and S64 costs; credit conditions; low growth; high construction costs; and delays in approvals. When asked to rank these issues they said that they vary based on broader conditions but otherwise would be fairly equal as issues.

5.3 Response to issues raised by external stakeholders

TABLE 12. RESPONSE TO STAKEHOLDER ISSUES

Issue	Council response
Financial	
– Construction costs are higher in Bega Valley Shire. At least up to 30% higher because of freight, volume of market and lack of competition. – CPI is increasing, but land value growth is lower than CPI growth. – Holding fees are a big impediment. – Stamp duty is a large cost. – Banks attitudes are difficult as they are not giving money to developers. Approval cannot be given at regional level they have to go to head office. – Land tax is around 3% of VG land values. This is quite costly for developers.	Outside the domain of Council
Geography	
The geographical spread of the towns means that there is less opportunity to utilise economies of scale.	Agree
Geographic subsidisation is a problem. In-land, built-up areas pay more than they should.	The water and sewer DSPs incorporate agglomeration and this has the effect of equalising S64 charges across all serviced towns in the Shire. The inland towns overall costs are in fact reduced. The S94 review will result in monies collected being spent in accordance with the 10 year long term Financial Plan and adopted Asset Management Plan.

Issue	Council response
Council charges	
S94 and S64 too expensive. It was suggested that it they are in the top 3 a in NSW	The S64 charges are calculated using an approved IPART/NSW Office of Water calculation method. Bega Valley Shire Council S64 charges arise due to capital works costs associated with supporting development and servicing existing customers. The NSW trend is that average s64 charges are increasing to similar levels as more Councils comply with NSW Govt guidelines. Bega Valley Shire Council is placing draft Water Supply and Sewerage Development Servicing Plans (DSPs) on public exhibition to highlight proposed improvements to its level of service, proposed capital works and associated charging structure. "The new draft DSPs recommend a reduction in developer contributions from their current combined value of $21,878 to $18,000 per adopted tenement. "This reduction in developer costs is proposed to be funded by a cross subsidy from water and sewer user and access charges. The cross subsidy amounts to $85 per annum for typical residential sewerage bills and $18 per annum for typical residential water bills."
25% plus of retail land values goes into S94 and S64 and this could be up to 45% for subdivision	The S64 charges arise from an approved IPART/NSW Office of Water calculation method. The S64 charges arise due to capital works costs needed to support development. Increases in charges since the development boom days of the early/mid 1980's have largely followed Construction Cost Index – e.g. $2,500 s64 charges in 1983 would inflate to $8,850 in 2013. This is despite major new infrastructure being constructed since that time to support growth. The S94 component is generally minor other than for Rural Rd contributions for rural subdivision which can be up to $5862.00 per lot.
Recommend at least a 25% reduction in S64 but base this on the retail land value across the area so have greater reduction for some areas	The draft water and sewer DSP's currently on public exhibition propose a reduced water and sewer combined S64 charge. These revised charges are set at an approximate 50% cross subsidy from typical residential bills. More cross subsidy than this is expected to render Council ineligible for future NSW Govt infrastructure grants. The IPART/ NSW Office of Water approved calculation method precludes any consideration of land values. Instead the S64 charges are based on required capital works to support development.
Used to do CPI in Bega now charges vary as per fees and charges annually which makes it difficult to plan your costs	The S64 and S 94 charges have been consistently indexed according to CPI since 2006. Developers have in fact had a consistent price path for planning purposes.
Prior to amalgamation Bega had no water meters but now they do and they have high S64 costs	There are two issues. Water meters were introduced as part of an overall state-wide push to increase accountability for water use and the second issue of costs has been already been addressed
50% reduction in s64 would have a sizeable impact on coastal development, some impact on inland, and not much impact elsewhere	Council agrees that development is impacted by a range of external issues as identified by the attendees and would not see that a 50% reduction in S64 charges would in fact result in an escalation of development. However such a large reduction may compromise availability of future capital works subsidy funds from State and federal Governments.

Issue	Council response
Council planning / process	
Delays in approvals. Accept that planning phase takes about 12 months but when this to 18 months or 2 years and beyond then holding costs are too much	This generally only occurs where the application does not contain all required information or problems are encountered with obtaining approval under other legislation that is required before Council can determine the application.
Number and depth of reports required for subdivisions is onerous but realise these are State government requirements. But this is hard for families wanting to subdivide for their family	Agree the reports required add time and cost to subdivision approval process. However the reports in most instances are required by separate State legislation.
Need to balance costs with the LEP i.e. line up charges with where you want development to occur	The water and sewer DSP's currently on public exhibition utilise agglomeration across all development areas in the Shire. Council has adopted this approach to balance broad community needs for available land in both coastal and inland areas. Council is currently reviewing the Section 94 plans however the charges will be based on Council's 10 Year Long Term Financial Plan and Asset Management Plans.
Should consider staged development so that Council does not require full payment of S94 and S64 up front. Shoalhaven Council doesn't require payment of S94 and S64 until start building.	Council does allow staged consents and the Section 94 and Section 64 charges are staged in accordance with this staging. i.e. if 10 units approved over 5 stages the charges for each stage are required up front for that stage only, not the total cost for the 10 units. Council does not allow deferred payments or staging of payments in lieu of upfront payment. IPART have indicated that this approach is unacceptable and that all costs should be up front.

Issue	Council response
General comments	
Development in villages dried up when brought in S64	S64 charges for water have been in place for many years and sewer since the Bega Valley Sewerage Program provided sewer in the villages. Prevailing economic conditions ongoing since the 2008 GFC are likely causes. Imposition of land tax on vacant blocks in 2006 forced many private undeveloped blocks in towns and villages in coastal NSW back onto the market at reduced prices, impacting on viability of new land releases.
In early 90's Council didn't charge head work fees for a year to encourage development but developers had to start work in that year	This approach would not be supported by IPART/NSW Office of Water and may impact availability of future State and Federal Government capital works subsidy funds. Furthermore the Council's long term financial plan would be compromised.
Water and sewerage usage has declined (due to efficiencies), but the rate of s64 charge has increased.	The reduced hydraulic loads have been recognised in the draft DSPs currently on public exhibition.
The attendees agreed that the following were the key issues identified as impacting on development: S94 and S64 costs; credit conditions; low growth; high construction costs; and delays in approvals. When asked to rank these issues they said that they vary based on broader conditions but otherwise would be fairly equal as issues.	

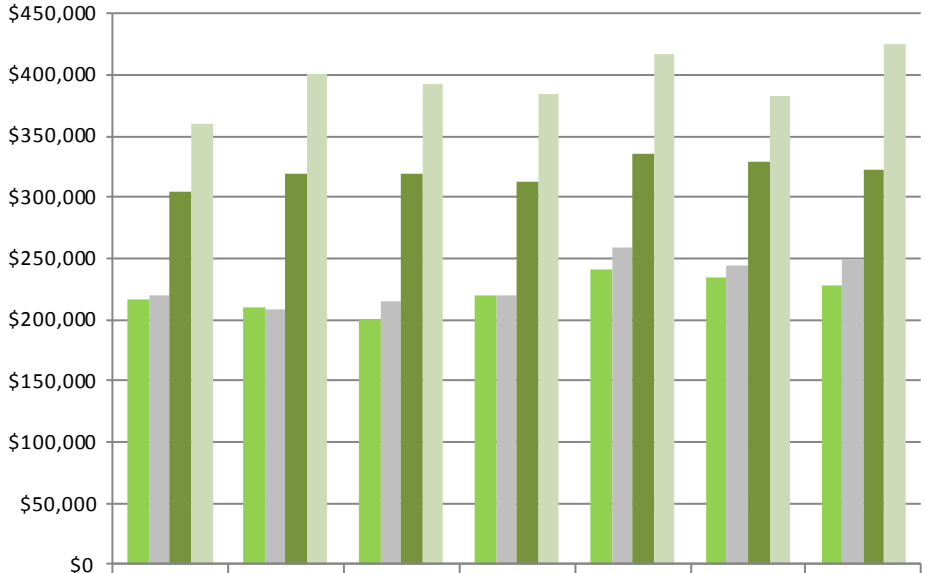
6 FEASIBILITY ANALYSIS

This section examines the feasibility residential development and sub-division. A broad market assessment is also conducted to inform the feasibility analysis. Residential feasibility is tested using the Residual Land Value method, while the feasibility of subdivision is tested using a conventional estimated profit approach. Case studies chosen by Council cover typical product types and development areas in the LGA. The selected areas include: Cobargo, Merimbula, Bega, Greigs Flat, and Tarraganda.

6.1 Market assessment

The recent sales history for detached dwellings and units has been collected for the selected areas of Cobargo, Bega, Merimbula and Bega Valley LGA (data is not available for Greigs Flat, and Tarranganda). Merimbula has the highest median detached dwelling prices out of the selected areas, likely reflecting its coastal location (Figure 9). House price growth for the LGA has been relatively stable throughout the study period.

FIGURE 9. HISTORICAL DETACHED DWELLING SALES, SELECTED AREAS: 2006-12

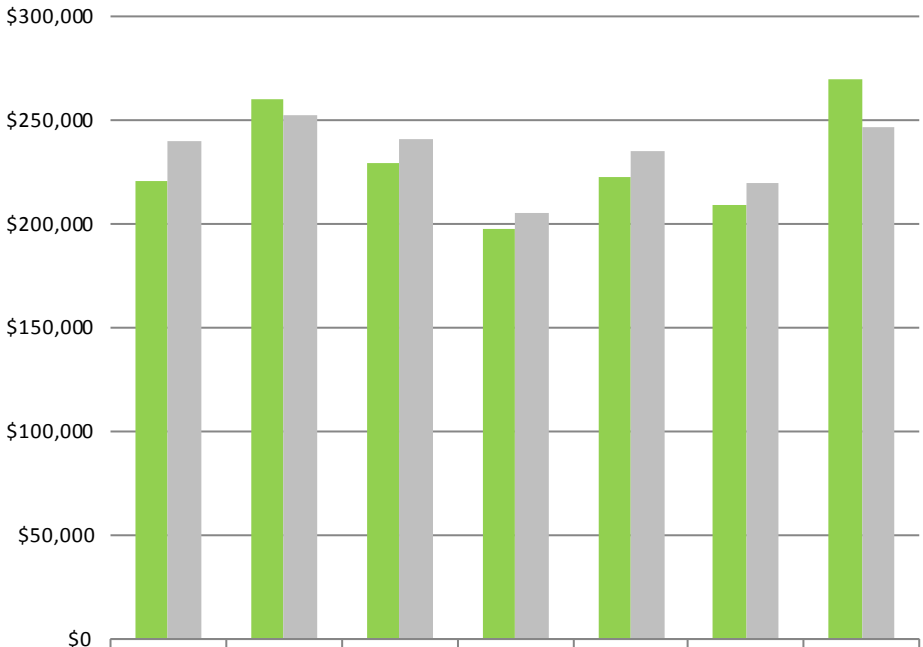


	2006	2007	2008	2009	2010	2011	2012
Cobargo	$216,500	$210,000	$200,000	$220,000	$240,500	$235,000	$228,500
Bega	$220,000	$209,000	$215,500	$220,000	$259,500	$245,000	$250,000
Bega Valley LGA	$305,000	$320,000	$320,000	$313,000	$335,000	$329,000	$322,000
Merimbula	$360,000	$400,000	$393,000	$385,000	$417,000	$383,000	$424,500

Source: RP Data, 2013.

The median prices for Cobargo and the Bega Valley LGA are displayed in Figure 10 below. Median prices have been variable for both areas over the study period, likely reflecting the age and quality of the product being sold in each year. Both Merimbula and Bega Valley median prices declined over the height of the GFC period and have returned to 2007 sale prices.

FIGURE 10. HISTORICAL UNIT SALES, SELECTED AREAS: 2006-12

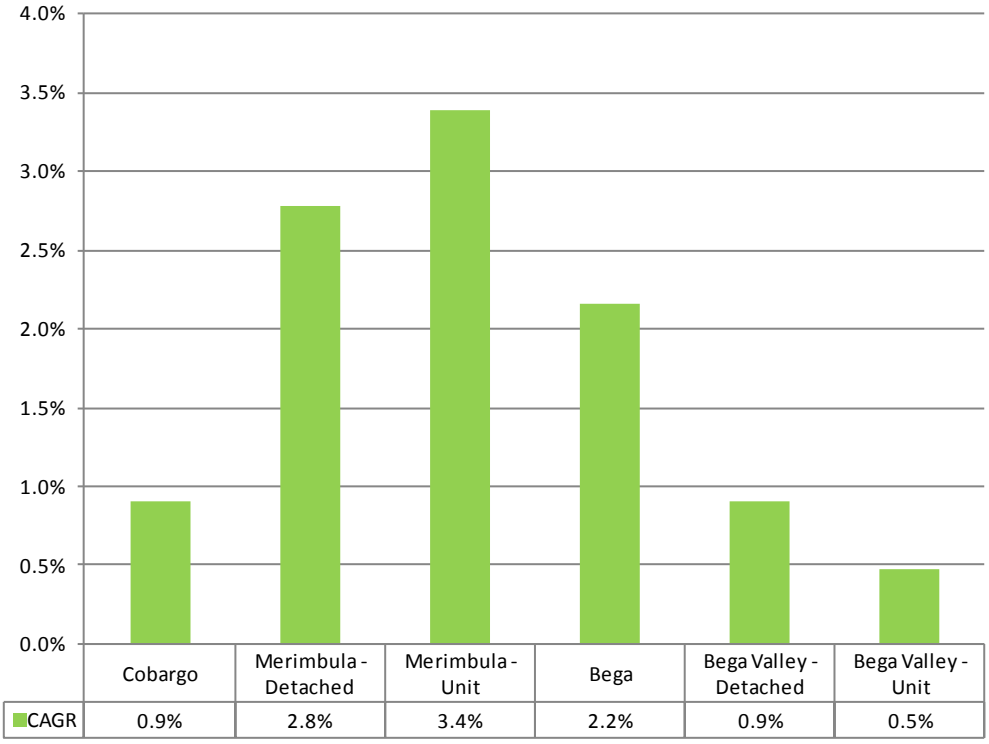


	2006	2007	2008	2009	2010	2011	2012
Merimbula	$221,000	$260,000	$230,000	$197,540	$222,500	$209,500	$270,000
Bega Valley LGA	$240,000	$252,500	$241,000	$205,000	$235,000	$220,000	$247,000

Source: RP Data, 2013.

The compound average growth rate of the selected study areas from 2006 to 2012 is outlined below. Given that the Consumer Price Index (CPI) is generally around 2.5 percent each year, the only growth in real terms has been in Merimbula for both detached dwellings and units. Cobargo and Bega Valley (both detached dwelling and units) have seen growth below 1 percent per annum. This indicates that in recent years the housing market has experienced weak price growth.

FIGURE 11. COMPOUND AVERAGE GROWTH RATE, SELECTED AREAS: 2006-12

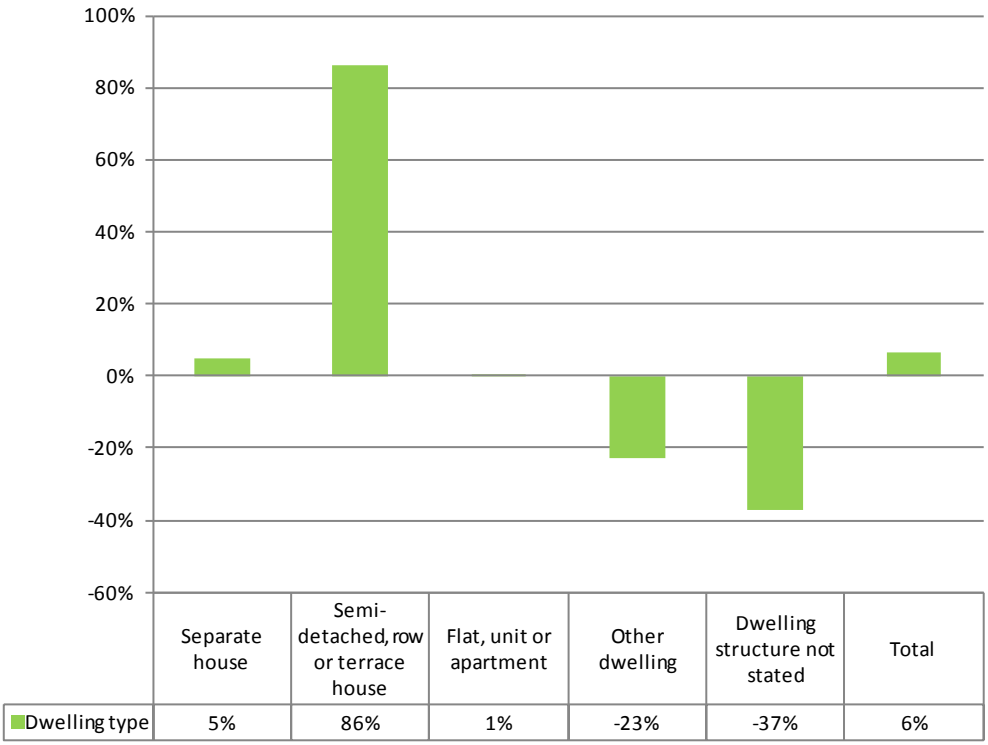


	Cobargo	Merimbula - Detached	Merimbula - Unit	Bega	Bega Valley - Detached	Bega Valley - Unit
CAGR	0.9%	2.8%	3.4%	2.2%	0.9%	0.5%

Source: HNSW, 2013.

Bega Valley LGA has experienced both weak demand in terms of population growth and increasing dwelling supply during the period of 2006 to 2011. While the population for the LGA grew only by 2.8 percent over this time period (from 31,062 to 31,950 persons), the number of total dwellings increased by 6.4 percent (from 12,627 to 13,437)(see Figure 12). Concurrently, semi-detached dwellings grew by 86 percent over the study period. Semi-detached dwellings are comparatively cheaper than similar detached dwellings. As such, an increase in the supply of this dwelling type; which is towards the lower end of the price spectrum, has had a markedly strong downward effect on median house prices in the LGA.

FIGURE 12. DWELLING CHANGE IN BEGA VALLEY LGA, 2006-11

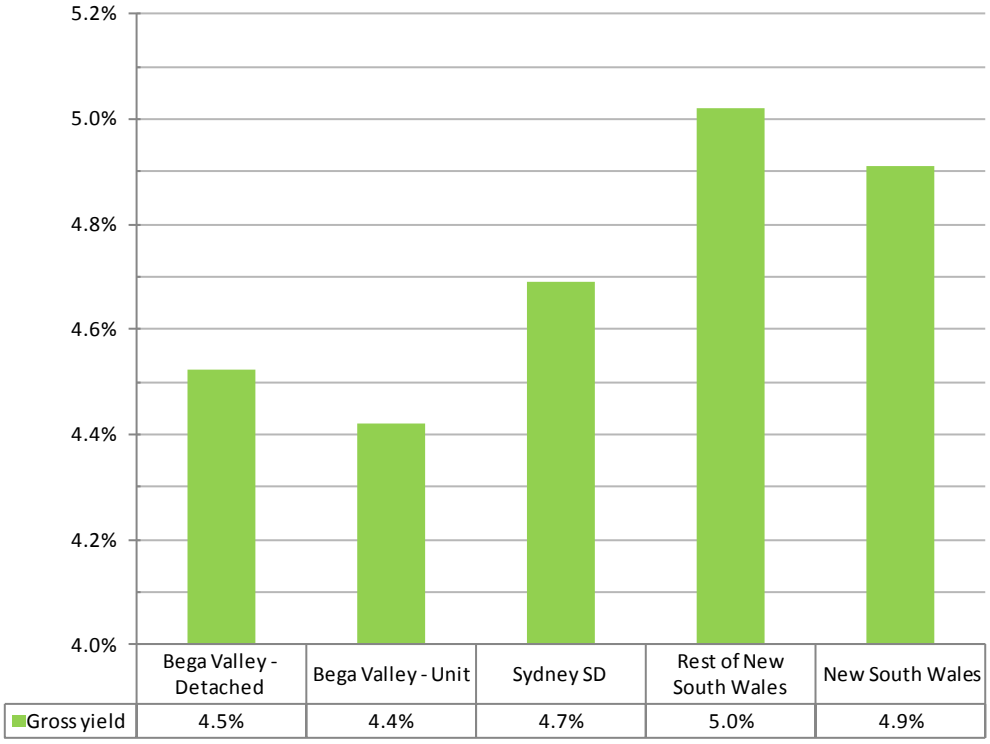


	Separate house	Semi-detached, row or terrace house	Flat, unit or apartment	Other dwelling	Dwelling structure not stated	Total
Dwelling type	5%	86%	1%	-23%	-37%	6%

Source: ABS, 2013.

Another measure of the state of the Bega Valley housing market is the rental yields of dwellings. The gross rental yield for both detached dwellings and units in the Bega Valley LGA is around 4.5 and 4.4 percent, respectively (Figure 13). This is lower than the average yields across regional NSW (5 percent) and Sydney.

FIGURE 13. RENTAL YIELD SEPTEMBER 2012, BEGA VALLEY



Source: HNSW, 2013.

In summary, median house price growth has been relatively flat, with all areas except for Merimbula experiencing price declines, in real terms, from 2006 to 2012. The flat housing market appears to be as a result of sluggish population growth and a much higher relative rate of population growth. The implication for this study is that flat or decreasing achievable house prices reduces the ability to absorb any infrastructure charges and hence adversely affects the viability of development.

6.2 Case study areas

Case study areas have been selected in consultation with Council, and following the external stakeholder feedback workshop.

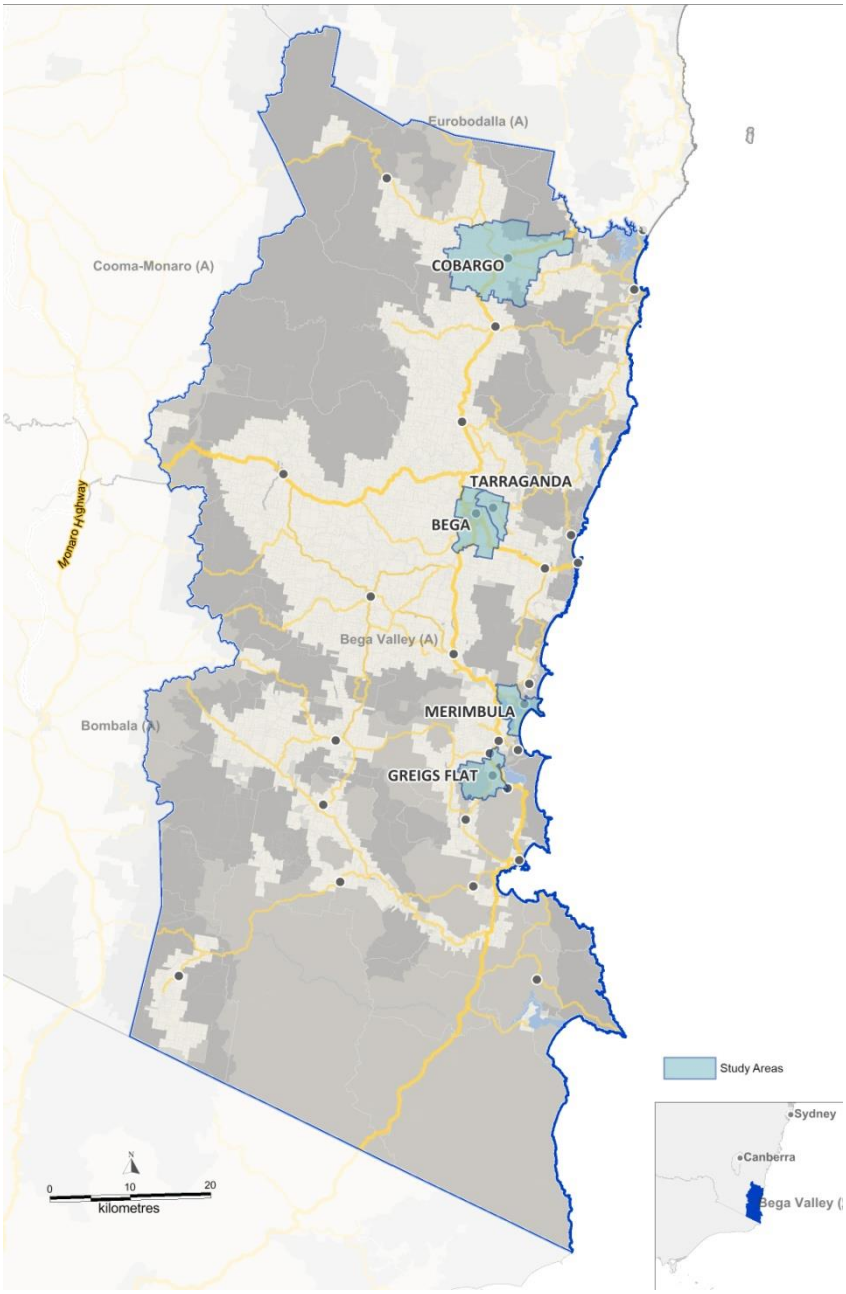
Residential case study areas

Details of potential residential development sites were provided by the Council for feasibility testing. The case studies cover typical product, and geography types within the LGA. The potential sites were chosen on the basis that they represent typical locations of residential development, and capture the variation in geography types. The figure below shows areas that are subject to the residential and sub-division feasibility analysis.

TABLE 13. RESIDENTIAL DEVELOPMENT CASE STUDIES

	Village - Cobargo	Coastal town - Merimbula	Inland town - Bega	Rural - Griegs Flat	Rural res - Tarraganda
Village	Property Cobargo				
Town - infill		Property Fishpen	Property Bega		
Town - greenfield		Property Merimbula	Property Glen Mia		
Rural				Property Griegs Flat	
Rural residential					Property Tarraganda

FIGURE 14. MAP OF CASE STUDY AREAS



Source: SGS (2013).

Subdivision case study areas

Details of existing sub-divisions were provided by the Council for feasibility testing. Following are case studies subject to the feasibility assessment:

- Property Glen Mia, Bega (sub-divided in 2003, and consists of 138 lots)
- Property Tura Beach, Tura Breach (sub-divided in 2010, and consists of 4 lots)

6.3 Residential development feasibility

This section of the report examines the financial viability of residential development in Bega Valley LGA. Site-specific feasibility analysis was undertaken to illustrate the impacts of development contributions on feasibility.

How is residential feasibility determined?

A Residual Land Value (RLV) model has been used to test the feasibility of each development. The RLV model calculates the residual value available for land purchase after subtracting all of the development costs (including minimum profit margin or borrowing cost) from anticipated sales revenues. A development is deemed to be feasible if the residual land value (which is simply sales revenue less total costs excluding land) is greater than the cost of land acquisition. This is illustrated in the equation below.

FIGURE 15. RESIDUAL LAND VALUE CALCULATION

Source: SGS, 2012

The development is considered feasible when the residual land value is greater than the cost to acquire the land. This is given as a ratio in the model where a feasibility ratio >1 translates to a feasible development.

Floorspace assumptions

The following typical internal areas (square metres), provided by the Council, are applied to the respective dwelling types for each case study.

- Single dwelling: 250 square metres
- Unit (3 bedrooms): 180 square metres
- Dual occupancy (3 bedroom): 180 square metres

The following table summarises the floorspace estimates for each development based on product type, and yield for each site provided by the Council.

TABLE 14. SUMMARY OF YIELDS BY CASE STUDY

Area	Case study	Product type	Yield (number of dwellings)	Total floorspace (sqm)
Cobargo	Property Cobargo	Single dwelling	1	250
Merimbula	Property Fishpen	Units (3br)	2	360
	Property Merimbula	Single dwelling	1	250
Bega	Property Bega	Dual occupancy (3br)	2	360
	Property Glen Mia	Single dwelling	1	250
Griegs Flat	Property Griegs Flat	Single dwelling	1	250
Tarraganda	Property Tarraganda	Subdivision and single dwelling	1	250

Cost assumptions

The following per square metre constructions costs (sourced from Rawlinson's Construction Handbook 2013) are applied to the above floorspace estimates to derive the total building cost of each development. These costs have been adjusted by the average of the Rawlinson's regional cost increase indices for Bega (12 percent) and Eden (13 percent).

- $1,826 per sqm of Single dwelling floorspace (brick veneer)
- $1,826 per sqm of dual occupancy floorspace (brick veneer)
- $2,375 per sqm of apartment floorspace (Medium standard finish, excluding balcony)

In addition the following percentages are applied to derive additional costs pertaining to the development.

TABLE 15. ADDITIONAL DEVELOPMENT COSTS

Cost item	Percentage applied
External works and services	2%of building cost
Construction contingency	5%of building cost + external works
Professional fees	4.2%of building cost + external works + construction contingency
Construction GST	n.a.Both costs and revenues exclude GST
Developer's profit margin	15%of all construction costs

Source: SGS (2012)
Notes: professional fees include the following: architect interior design, civil engineering, structural engineer, mechanical engineer, hydraulic engineer, electrical engineer, survey fees, quantity surveyor, and project management.

Revenue assumptions

Following are the residential unit sales prices used in the model. All sales prices are based on sales data from RP data, and advice from real estate agents in the LGA.

TABLE 16. SALES PRICE ASSUMPTIONS

Area	Case study	Product type	Sale price
Cobargo	Property Cobargo	Single dwelling	$325,000
Merimbula	Property Fishpen	Units (3br)	$350,000
	Property Merimbula	Single dwelling	$450,000
Bega	Property Bega	Dual occupancy (3br)	$300,000
	Property Glen Mia	Single dwelling	$400,000
Griegs Flat	Property Griegs Flat	Single dwelling	$500,000
Tarraganda	Property Tarraganda	Subdivision and single dwelling	$475,000

Source: Based on recent RP data sales, and agent advice.

In addition the following percentages are applied to the sale value to derive additional costs pertaining to the sales of the development. These costs are subtracted from sales revenue to derive net sales revenue.

TABLE 17. ADDITIONAL COSTS RELATING TO SALES

Cost item	Percentage of sales value
Commission on Sales	3.0%
Legal Fees	0.5%
Marketing	0.5%
Other	0.0%
Total sales expenses	**4.0%**

Source: SGS (2013)

Land value assumptions

The following table shows the estimated land values used in the feasibility modelling. All values were provided by Council. All values are unimproved, except the Fishpen site which has an existing development.

TABLE 18. LAND VALUES (2012$)

Area	Case study	Land value
Cobargo	Property Cobargo	$50,000
Merimbula	Property Fishpen	$319,000
	Property Merimbula	$126,000
Bega	Property Bega	$74,900
	Property Glen Mia	$80,000
Griegs Flat	Property Griegs Flat	$203,000
Tarraganda	Property Tarraganda	$165,000

Source: BVSC (2013). Excludes GST.

In addition, stamp duty payable on land transfers (calculated in line with thresholds specified by the NSW Office of State Revenue) are added to the land costs. Since GST is excluded in both the revenue and cost calculations, GST credits are not considered.

Development contributions: s94, s64 and others

Current s.94 and s.64 contributions applicable to each case study have been provided by Council. In addition, other charges for development consent were also provided by Council. Of particular importance in this respect, is the Tarraganda site, which has a charge of $10,213 for road construction as a condition of approval.

TABLE 19. DEVELOPMENT CONTRIBUTIONS

Area	Case study	Section 94 charge	Section 64 charge	Other charges for development consent	Total
Cobargo	Property Cobargo	$545	$21,878	$4,293	$26,716
Merimbula	Property Fishpen	$2,996	$19,960	$6,592	$29,548
	Property Merimbula	$545	$0	$2,930	$3,475
Bega	Property Bega	$4,335	$21,120	$11,735	$37,190
	Property Glen Mia	$545	$0	$2,477	$3,022
Griegs Flat	Property Griegs Flat	$7,076	$0	$3,772	$10,848
Tarraganda	Property Tarraganda	$3,434	$0	$15,838	$19,272

Source: Provided by BVSC.

Results

As noted earlier, the Residual Land Value (RLV) is calculated as the difference between total net sales and total development costs (excluding land value). If the RLV is greater than land value, then the development is feasible (that is, feasibility ratio greater than one). The table below shows the results under current s94 and s64 arrangements.

TABLE 20. FEASIBILITY RESULTS – CURRENT CONTRIBUTION

	Cobargo	Merimbula		Bega		Griegs Flat	Tarraganda
	Property Cobargo	Property Fishpen	Property Merimbula	Property Bega	Property Glen Mia	Property Griegs Flat	Property Tarraganda
Total net sales revenue	**$288,068**	**$620,455**	**$398,864**	**$531,818**	**$354,545**	**$443,182**	**$421,023**
Cost before charges	$585,802	$1,097,266	$585,802	$843,556	$585,802	$585,802	$585,802
Total dev. charges:	$26,716	$29,548	$3,475	$37,190	$3,022	$10,848	$19,272
Section 94	$545	$2,996	$545	$4,335	$545	$7,076	$3,434
Section 64	$21,878	$19,960	$0	$21,120	$0	$0	$0
Other	$4,293	$6,592	$2,930	$11,735	$2,477	$3,772	$15,838
Total dev. Costs (incl. charges)	**$612,518**	**$1,126,814**	**$589,277**	**$880,746**	**$588,824**	**$596,650**	**$605,074**
Residual Land Value (Net sales - Total dev costs)	**-$324,450**	**-$506,360**	**-$190,414**	**-$348,927**	**-$234,279**	**-$153,469**	**-$184,052**
Land costs (incl. Stamp Duty)	$50,852	$330,280	$129,341	$76,274	$81,570	$209,305	$169,842
Feasibility ratio (RLV/Land costs)	**-6.38**	**-1.53**	**-1.47**	**-4.57**	**-2.87**	**-0.73**	**-1.08**

Source: SGS, (2012).

The feasibility ratios for all case studies are negative. This implies that the proposed residential development on these sites is not feasible, and selling vacant lots without development would be more financially viable in relative terms. It is evident that this result is mainly driven by the fact that development costs before any infrastructure charge is greater than the sales revenue. As such the Residual Land Value (RLV) (which includes all charges) is also negative.

These results could be due to a range of factors, including but not limited to the following:

- A potential overestimation of per square metre cost of construction in Rawlinson's
- Insufficient demand in the area to drive up sales prices (demand-side), or
- lack of competition in the construction sector in the LGA driving up construction costs (supply-side).

The robustness of the assumed per square metre cost of construction is tested by incorporating stakeholder input into the modelling assumptions. This is discussed in detail in the next section.

Impact of development contributions on feasibility

The following table shows each type of development contribution as a share of total development cost. As expected, Section 64 water and sewerage contributions are the highest for all case studies to which they apply.

TABLE 21. CONTRIBUTIONS AS A SHARE OF TOTAL DEVELOPMENT COST

	Cobargo	Merimbula		Bega		Griegs Flat	Tarraganda
	Property Cobargo	Property Fishpen	Property Merimbula	Property Bega	Property Glen Mia	Property Griegs Flat	Property Tarraganda
S94	0.1%	0.3%	0.1%	0.5%	0.1%	1.2%	0.6%
S64	3.6%	1.8%	0.0%	2.4%	0.0%	0.0%	0.0%
Other charges	0.7%	0.6%	0.5%	1.3%	0.4%	0.6%	2.6%

Source: SGS, (2012).

To illustrate the impact of altering Section 64 charges, we test the impact of half the current charge, and no charge, on residential the RLV of each case study. It is clear that altering the section 64, would have no impact on the overall feasibility of the chosen case studies, since the RLVs are negative even without s.64 charges.

TABLE 22. IMPACT OF ALTERING S64 CONTRIBUTIONS

	Cobargo	Merimbula		Bega		Griegs Flat	Tarraganda
RLV (Rev - Costs) with:	Property Cobargo	Property Fishpen	Property Merimbula	Property Bega	Property Glen Mia	Property Griegs Flat	Property Tarraganda
Current s64	-$324,450	-$506,360	-$190,414	-$348,927	-$234,279	-$153,469	-$184,052
Half of current s64	-$313,511	-$496,380	-$190,414	-$338,367	-$234,279	-$153,469	-$184,052
No s64	-$302,572	-$486,400	-$190,414	-$327,807	-$234,279	-$153,469	-$184,052

Source: SGS, (2012).

6.4 Subdivision development feasibility

This section of the report examines the financial viability of sub-dividing larger lots in Bega Valley LGA. Feasibility analysis was undertaken to illustrate the impacts of development contributions on feasibility.

How is sub-division feasibility assessed?

Similar to the RLV method, total revenue is compared to total costs. The key difference, however, is that land acquisition cost is part of total costs in this approach. As such, any positive land sale profit (above the minimum expected profit level) implies that the sub-division is feasible.

The following steps were adopted for the cost side of the assessment:

Step 1: Determine the average purchase cost per lot. This is based on the cost of purchasing the mother lot and the total yield. This information was provided by Council.

Step 2: Determine the average cost of subdivision. This is based on costs incurred for roads, storm water drainage, water, and sewer reticulation works, telecommunications, service conduits, and earthworks, obtained from construction certificates lodged with Council. This information was provided by Council.

Step 3: Determine the developer contributions per lot. This information is provided by Council.

Step 4: Determine the minimum expected profit level. In line with the previous section, it is assumed that 15 percent of total cost is the minimum profit required.

The following steps were adopted for the revenue side of the assessment:

Step 1: Determine the sales price of the lot. Land value estimates provided by Council, recent comparable sales in the area, and real estate advice was utilised to derive an estimate.

Step 2: Determine any expenses relating to the sale of individual lot. In line with the previous section, it is assumed that four percent of total sales revenue would be sales expenses.

Results

Feasibility of sub-division is calculated as the difference between total net sales and total development costs (including land value, and expected minimum profit). If the land sale profit is positive, then the sub-division is feasible. The table below shows the results under current s94 and s64 arrangements.

TABLE 23. FEASIBILITY RESULTS – CURRENT CONTRIBUTION

	Tura Beach Property	Glen Mia Property
Total net sales revenue (after sales expenses and GST credit)	**$124,643**	**$76,043**
Apportioned land cost of sub-division	$71,597	$7,063
Apportioned cost of sub-division process	$12,959	$49,412
Expected minimum profit	$12,683	$8,471
Section 94 charge	$5,865	$5,865
Section 64 charge	$21,550	$21,878
Other charges for development consent	$658	$3,431
Total cost	**$125,312**	**$96,119**
Land sale profit (Revenue - Costs)	**-$669**	**-$20,076**

Source: SGS, (2012).

Land sale profit (above the minimum expected level) for the Glen Mia sub-division is approximately negative $20,000 and therefore not feasible. Land sale profit for the Tura Beach sub-division is also negative. However, given that the loss is quite small, it is on the border of being feasible (at the minimum expected level of 15 percent profit). This result is in large part due to costs associated with the sub-division process, and infrastructure contributions.

Impact of development contributions on feasibility

The following table shows each type of development contribution as a share of total development cost. As expected, Section 64 water and sewerage contributions are the highest for all case studies to which they apply. Overall, infrastructure contributions make up around 22 to 32 percent of the total cost per sub-division.

TABLE 24. CONTRIBUTIONS AS A SHARE OF TOTAL DEVELOPMENT COST

	Tura Beach Property	Glen Mia Property
Section 94 charge	4.7%	6.1%
Section 64 charge	17.2%	22.8%
Other charges for development consent	0.5%	3.6%

Source: SGS, (2012).

To illustrate the impact of altering Section 64 charges, we test the impact of half the current charge, and no charge, on each case study. It is clear that altering the section 64 would have a sizeable impact on the feasibility of the chosen case studies. Halving the current section 64 charges would make the Tura Beach sub-division highly feasible, and the Glen Mia sub-division more attractive (albeit at a lower minimum profit margin).

TABLE 25. IMPACT OF ALTERING S64 CONTRIBUTIONS

Land sale profit with:	Tura Beach Property	Glen Mia Property
Current s64	-$669	-$20,076
Half of current s64	$22,789	-$9,137
No s64	$33,564	$1,802

Source: SGS, (2012).

6.5 Sensitivity testing

One of the aims of the external workshop was to gain insightful input from stakeholders to assess the robustness of the modelling assumptions. Information gathered from workshop has been used to alter key assumptions in the model thereby directly incorporating stakeholder input to the feasibility modelling process.

Stakeholder input to modelling

Workshop attendees were asked to respond to questions regarding key inputs to the feasibility modelling. The respondents were invited to complete the questionnaires without colluding (to prevent response bias). The questions asked, the average responses (of those who chose to respond), and the baseline SGS assumptions are shown below (see the Appendix for graphs of responses). The combined suitability score has two dimensions: suitability of product type, and adequacy of floor space; each of which was scored by 10 by respondents. The combined score is therefore out of 20.

TABLE 26. AVERAGE OF STAKEHOLDER RESPONSE VS SGS ASSUMPTION

	Cobargo	Merimbula		Bega		Griegs Flat	Tarraganda
	Property Cobargo	Property Fishpen	Property Merimbula	Property Bega	Property Glen Mia	Property Griegs Flat	Property Tarraganda
Combined suitability score	10.0	15.3	14.4	11.9	13.8	14.2	14.4
Residential development feasibility							
Construction cost per sqm:							
Stakeholder workshop	$1,313	$1,480	$1,280	$1,413	$1,240	$1,325	$1,260
SGS model	$1,826	$2,375	$1,826	$1,826	$1,826	$1,826	$1,826
Total development cost per dwelling (excl. land and contributions):							
Stakeholder workshop	$295,000	$396,667	$318,667	$407,600	$324,400	$343,750	$343,750
SGS model	$509,393	$477,072	$509,393	$366,763	$509,393	$509,393	$509,393
Sale price per dwelling:							
Stakeholder workshop	$312,500	$538,750	$433,000	$501,250	$422,500	$459,600	$456,000
SGS model	$295,455	$318,182	$409,091	$272,727	$363,636	$454,545	$431,818
Expected profit margin:							
Stakeholder workshop	22%	20%	21%	22%	21%	21%	21%
SGS model	15%	15%	15%	15%	15%	15%	15%
Sub-division feasibility							
Costs relating to sub-division (per lot):							
Stakeholder workshop			$82,500		$61,000		
SGS model			Not modelled		$49,412		
Vacant lot sale price:							
Stakeholder workshop			$134,000		$98,000		
SGS model			Not modelled		$80,000		
Profit margin:							
Stakeholder workshop			17%		20%		
SGS model			Not modelled		15%		

Source: SGS (2013), and responses compiled from stakeholder workshop held on 11th April 2013.
Notes: Property Merimbula was initially considered as appropriate for sub-division feasibility testing. However, due to lack of data, and complexity of sub-division, an alternative site was chosen subsequent to the external workshop. All responses are weighted equally.

The comparison between stakeholder responses and baseline SGS assumptions highlights the following:

- Since the **combined suitability score** is 10 or more for all sites, the product type/site, and floor space is generally considered acceptable by respondents. The Cobargo site is probably least preferred by respondents.
- SGS **construction cost per square metre** (based on Rawlinson's construction cost estimates) are significantly higher than the average response.
- As a result, **total development costs** in the baseline SGS model are much higher for all sites except Property Bega.
- The **sale prices** for single dwellings are generally consistent with SGS assumptions. However, the respondents, on average, anticipate a higher sale price for flats, and dual occupancy dwellings than assumed by SGS.

- The average **expected profit margin** of respondents is in the order of 20 percent; while the base line SGS assumption is lower (15 percent).
- **Costs relating to the sub-division** of the Glen Mia site are not significantly different to the SGS assumption (which is based on construction certificate data provided by Council).
- The respondents are of the view that the Glen Mia lot can be sold for more than that assumed by SGS.

Changes to baseline SGS assumptions

Based on the above comparison of stakeholder responses to baseline SGS assumptions, the following changes are made to the baseline construction cost, and sale price assumptions adopted in the modelling.

Construction costs per square metre for:

- Single dwellings are reduced from $1,826 per sqm to $1,300 per sqm.
- Dual occupancy dwellings (Property Bega) are reduced from $1,826 per sqm to $1,400 per sqm.
- Flats (Property Fishpen) are reduced from $2,375 per sqm to $1,500 per sqm.

The sale price of:

- Each unit on the Property Fishpen site is increased from $350,000to $450,000.
- Each dual occupancy dwelling on Property Bega is increased from $300,000to $400,000
- The vacant Glen Mia sub-division is increased from $80,000 to $95,000

Adjusted residential feasibility

The table below shows the results under current s.94 and s.64 arrangements, after adjusting the construction cost, and sale price assumptions to incorporate stakeholder input.

TABLE 27. ADJUSTED FEASIBILITY RESULTS – CURRENT CONTRIBUTION

	Cobargo	Merimbula		Bega		Griegs Flat	Tarraganda
	Property Cobargo	Property Fishpen	Property Merimbula	Property Bega	Property Glen Mia	Property Griegs Flat	Property Tarraganda
Total net sales revenue	**$288,068**	**$797,727**	**$398,864**	**$709,091**	**$354,545**	**$443,182**	**$421,023**
Cost before charges	$417,098	$693,025	$417,098	$646,823	$417,098	$417,098	$417,098
Total dev. charges:	$26,716	$29,548	$3,475	$37,190	$3,022	$10,848	$19,272
Section 94	$545	$2,996	$545	$4,335	$545	$7,076	$3,434
Section 64	$21,878	$19,960	$0	$21,120	$0	$0	$0
Other	$4,293	$6,592	$2,930	$11,735	$2,477	$3,772	$15,838
Total dev. Costs (incl. charges)	**$443,814**	**$722,573**	**$420,573**	**$684,013**	**$420,120**	**$427,946**	**$436,370**
Residual Land Value (Net sales - Total dev costs)	**-$155,746**	**$75,154**	**-$21,710**	**$25,078**	**-$65,575**	**$15,236**	**-$15,348**
Land costs (incl. Stamp Duty)	$50,852	$330,280	$129,341	$76,274	$81,570	$209,305	$169,842
Feasibility ratio (RLV/Land costs)	**-3.06**	**0.23**	**-0.17**	**0.33**	**-0.80**	**0.07**	**-0.09**

Source: SGS, (2012).

The feasibility ratios for all case studies are negative or less than one. Even though residual land values (profit before land costs) for all sites are higher than the results with baseline SGS assumptions (mainly due to lower per square metre costs) none of the case study site are feasible. Broadly speaking, this implies that the baseline modelling results are generally robust.

As noted earlier, these results could be driven by both demand side factors such as insufficient demand in the area to drive up sales prices to required levels, and supply side issues such as lack of competition in the construction sector driving up construction costs, as well as high material costs due to distance from major distribution centres.

Impact of development contributions on feasibility

The following table shows each type of development contribution as a share of total development cost. As expected, Section 64 water and sewerage contributions are the highest for all case studies to which they apply. Compared to the baseline results, Section 64 contributions have increased from around 2 to 4 percent, to 3 to 5 percent of total development costs.

TABLE 28. CONTRIBUTIONS AS A SHARE OF TOTAL DEVELOPMENT COST

	Cobargo	Merimbula		Bega		Griegs Flat	Tarraganda
	Property Cobargo	Property Fishpen	property Merimbula	Property Bega	Property Glen Mia	Property Griegs Flat	Property Tarraganda
S94	0.1%	0.4%	0.1%	0.6%	0.1%	1.7%	0.8%
S64	4.9%	2.8%	0.0%	3.1%	0.0%	0.0%	0.0%
Other charges	1.0%	0.9%	0.7%	1.7%	0.6%	0.9%	3.6%

Source: SGS, (2012).

To illustrate the impact of altering Section 64 charges, we test the impact of half the current charge, and no charge, on residential the RLV of each case study. The following table shows the feasibility ratio for each site after altering the development contribution. The reduction in construction cost (per square metre), and increase in sale prices (for units, and dual occupancies) has resulted in a positive RLV which makes the feasibility ratio positive. However, even with no Section 64 charge feasibility ratios for all sites are negative or less than one. Broadly speaking, this suggests that the results from the baseline modelling are generally robust, and that Section 64 has a limited impact on the feasibility of residential development.

TABLE 29. IMPACT OF ALTERING S64 CONTRIBUTIONS

	Cobargo	Merimbula		Bega		Griegs Flat	Tarraganda
Feasibility ratio (RLV / Land costs)	Property Cobargo	Property Fishpen	Property Merimbula	Property Bega	Property Glen Mia	Property Griegs Flat	Property Tarraganda
Current s64	-3.06	0.23	-0.17	0.33	-0.80	0.07	-0.09
Half of current s64	-2.85	0.26	-0.17	0.47	-0.80	0.07	-0.09
No s64	-2.63	0.29	-0.17	0.61	-0.80	0.07	-0.09

Source: SGS, (2012).

Adjusted sub-division feasibility

The table below shows the results under current s.94 and s.64 arrangements, after adjusting the sale price assumptions to incorporate stakeholder input[8]. As expected, the higher sale price of the Glen Mia sub-division results in land sale profit higher than that under the base case. However, the profit is still negative, which suggests that the developer would need to accept a profit margin lower than 15 percent. This implies that this sub-division is only just feasible under the current contributions framework. This reaffirms the results from the base case.

TABLE 30. FEASIBILITY RESULTS – CURRENT CONTRIBUTION

	Glen Mia Property
Total net sales revenue (after sales expenses and GST credit)	**$89,339**
Apportioned land cost of sub-division	$7,063
Apportioned cost of sub-division process	$49,412
Expected minimum profit	$8,471
Section 94 charge	$5,865
Section 64 charge	$21,878
Other charges for development consent	$3,431
Total cost	**$96,119**
Land sale profit (Revenue - Costs)	**-$6,781**

Source: SGS, (2012).

Impact of development contributions on feasibility

The following table shows each type of development contribution as a share of total development cost. As before, Section 64 contributions are the highest for all case studies and total contributions make up around 32 percent of the total cost per sub-division.

TABLE 31. CONTRIBUTIONS AS A SHARE OF TOTAL DEVELOPMENT COST

	Glen Mia Property
Section 94 charge	6.1%
Section 64 charge	22.8%
Other charges for development consent	3.6%

Source: SGS, (2012).

To illustrate the impact of altering Section 64 charges, as before, we test the impact of half the current charge, and no charge, on feasibility. It is clear that altering the section 64 charge would have a sizeable impact on sub-division feasibility. Halving the charge makes the Glen Mia sub-division feasible. These results are similar to those from the baseline modelling.

TABLE 32. IMPACT OF ALTERING S64 CONTRIBUTIONS

Land sale profit with:	Glen Mia Property
Current s64	-$6,781
Half of current s64	$4,158
No s64	$15,097

Source: SGS, (2012).

[8] Note that the Tura Beach site was modeled subsequent to the stakeholder workshop and does not appear in this section.

7 CONCLUSION

This study examined the impact of infrastructure contributions on the feasibility of residential development, and sub-divisions. Development trends do not indicate any broad discernible pattern suggesting that section 64 contributions adversely impact development. Consultation with key stakeholders was also conducted. The workshop provided very useful insight into the development industry and the participants were able to discuss the key issues that are impacting development in the area. In summary, the key areas impacting development from their perspective were: financial; geography; council charges; and planning / processes. However, the participants agreed that the following were the key issues identified as impacting on development: S94 and S64 costs; credit conditions; low growth; high construction costs; and delays in approvals.

SGS feasibility modelling indicates that s.64 has very limited impact on residential development. This suggests that residential feasibility is impacted more by demand side (inadequate growth to be able to charge a higher price), and supply side (high construction costs, credit conditions) factors, than by infrastructure charges. As such, it is unlikely that a reduction in the s64 charge would result in an increase in residential development.

In contrast, modelling of the sub-division case studies indicate that they are not feasible under current conditions. This is in large part due to costs associated with the sub-division process, and largely due to infrastructure contributions. Section 64 charges make up a large proportion of the total cost of sub-division, and as such, drive up costs in a substantive manner.

Through the course of this study, the following additional issues were also identified.

High charge in new localities	Explore differential contribution mechanisms that line up with the LEP, and vary by development type. The differential contribution scheme could act as a signal to the market, and align good planning outcomes with the market.
Growth assumptions in plans	Annually review growth trends in the LGA. This would enable Council in understanding whether it is generating the revenue required for future public works, and whether the underlying peak load assumptions are accurate.
Geographical spread of LGA	Explore ways to design more efficient water and sewer networks that could result in economies of scale. Efficiencies in water consumption could also be taken into account in peak load assumptions in plans, and should be incentivised in the DCP to ensure efficient water consumption (which would imply a lower s64 water charge).
Geographical subsidy	In the interest of equitable outcomes, some level of geographic subsidy must be retained, or else new growth areas would be highly infeasible. The current scheme of geographic subsidisation could be reviewed, and lower geographic subsidisation options could be explored.
Impact of the new hospital	Establish a monitoring system to assess the impact of growth due to the new regional hospital in Bega Valley. This could include establishing base line figures and assessing change against criteria such as expenditure, housing choice and demand, and the place of usual residence of new employees. This would be useful in understanding future growth opportunities, and managing the impact on existing infrastructure.
Market confidence	To increase market confidence, and reduce developer costs, the Council should continue to work towards increasing the efficiency in planning processes (streamlined application processes, and approvals). These efforts should be communicated to the market regularly, and effectively.

www.sgsep.com.au

Contact us

BRISBANE

PO Box 1177
Level 1, 76 McLachlan Street
Fortitude Valley QLD 4006

+61 7 3124 9026
sgsqld@sgsep.com.au

CANBERRA

Level 1, 55 Woolley Street
Dickson ACT 2602

+61 2 6262 7603
sgsact@sgsep.com.au

HOBART

Unit 2, 5 King Street
Bellerive TAS 7018

+61 (0)439 941 934
sgstas@sgsep.com.au

MELBOURNE

Level 5, 171 La Trobe Street
Melbourne VIC 3000

+61 3 8616 0331
sgsvic@sgsep.com.au

SYDNEY

Suite 12, 50 Reservoir Street
Surry Hills NSW 2010

+61 2 8307 0121
sgsnsw@sgsep.com.au

SGS Economics & Planning